Species accounts

The list of species that follows is a synthesis of all the botanical knowledge currently available on the Nyika Plateau flora. It does not claim to be the final word in taxonomic opinion for every plant group, but will provide a sound basis for future work by botanists, phytogeographers, and reserve managers. It should also serve as a comprehensive plant guide for interested visitors to the two Nyika National Parks.

By far the largest body of information was obtained from the following nine publications:

- *Flora zambesiaca* (current ed. G. Pope, 1960 to present)
- *Flora of Tropical East Africa* (current ed. H. Beentje, 1952 to present)
- *Plants collected by the Vernay Nyasaland Expedition of 1946* (Brenan & collaborators 1953, 1954)
- *Resource inventory and management plan for the Nyika National Park* (Mill 1979)
- *The forest vegetation of the Nyika Plateau: ecological and phenological studies* (Dowsett-Lemaire 1985)
- *Evergreen forest flora of Malawi* (White, Dowsett-Lemaire & Chapman 2001)

We also consulted numerous papers dealing with specific families or genera and, finally, included the collections made during the SABONET Nyika Expedition. In addition, botanists from K and PRE provided valuable input in particular plant groups.

Much of the descriptive material is taken directly from one or more of the works listed above, including information regarding habitat and distribution. A single illustration accompanies each genus; two illustrations are sometimes included in large genera with a wide morphological variance (for example, *Lobelia*). Where possible, we quoted two specimens for each country. Where there is some doubt whether a species has in fact been collected on the Nyika Plateau, it is excluded, but listed at the end of the generic treatment under “Excluded species”. Many controversial records from the Biosearch Nyika Expeditions are listed under this heading—these specimens were listed without precise collecting localities, voucher specimens, or indications of who determined them, hence their exclusion from the list. Further research may prove that some of these records should, in fact, be included in the Nyika Plateau list.

Within the major groupings—Bryophyta, Pteridophyta, Gymnosperms, Dicotyledons, and Monocotyledons—the species are arranged alphabetically by family, genus, and species. Families generally follow those adopted by Leistner (2000), while species concepts have been based mainly on those of Lebrun & Stork (1991–1997), except where more contemporary revisions indicate otherwise.

Alien or exotic plant species, many of them weeds, are indicated by * preceding the name. Vernacular names were obtained from Burtt Davy & Hoyle (1958) and Binns (1972). Where it was available, we added the name of the language.

A comprehensive glossary, list of references and further reading, and index appear at the end of the book.

Illustrated species are marked with the following symbols:
- Illustrated with a line drawing
- Illustrated in the colour plate section
**ANTHOCEROTACEAE**

**Anthoceros sp.**

**Anthoceros sp.**
*Malawi*. Nyika National Park, between Dembo Bridge and Chilenda Camp, between grass tussocks on edge of forest, 10° 30' 02"S, 33° 50' 33"E, 2000, Koekemoer 1767 (PRE).

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**HEPATOPHYTA**

**AYTONIACEAE**

**Asterella abyssinica** (Gottsche) Grolle
*Malawi*. Nyika National Park, between Chelinda Bridge and Dembo River crossing, near bridge, 10° 32' 09"S, 33° 51' 17"E, 2000, Koekemoer 1760 (PRE); Jalawe Viewpoint, close to the top, 10° 21' 41"S, 33° 47' 51"E, 2000, Koekemoer 1875 (PRE); Nyika National Park, 10° 45' 06"S, 33° 53' 15"E, 2000, Koekemoer 1891 (PRE).

**Asterella wilmsii** (Steph.) S.W.Arnell
*Malawi*. Nyika National Park, Juniper Forest, downstream from the bridge, 10° 45' 06"S, 33° 53' 15"E, 2000, Koekemoer 1912 (PRE).

**Plagiochasma eximium** (Schiffn.) Steph.
*Malawi*. Nyika National Park, Jalawe Viewpoint, just below the wooden steps to the last boulders, 10° 21' 41"S, 33° 47' 51"E, 2000, Koekemoer 1878 (PRE).

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**FOSSEMBOLNIACEAE**

**Fossombronia nyikaensis** Perold
This liverwort, recently described, was first collected on the SABONET Nyika Expedition (Perold 2001).
*Malawi*. Nyika National Park, South Circular Route, at Chelinda Bridge, 2000, Koekemoer 1792 (PRE, holo.); ibid., Koekemoer 1786 (PRE).

**Fossombronia straussiana** Perold
*Malawi*. Nyika National Park, road cutting near Chilenda Camp, 10° 35' 20"S, 33° 48' 41"E, 2000, Koekemoer 1704 (PRE); on road surface close to Juniper Forest, 10° 45' 06"S, 33° 53' 15"E, 2000, Koekemoer 1895 (PRE).

**Fossombronia sp.**

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**JUNGERMANNIACEAE**

**Jungermannia sp.**
*Malawi*. Nyika National Park, between Chelinda Bridge and Dembo River crossing, near bridge, 10° 32' 09"S, 33° 51' 17"E, 2000, Koekemoer 1763 (PRE).

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**LUNULARIACEAE**

**Lunularia cruciata** (L.) Dumort. ex Lindb.
*Malawi*. Nyika National Park, South Circular Route, steep bank of kloof, 10° 39' 35"S, 33° 49' 02"E, 2000, Koekemoer 1817 (PRE); Juniper Forest, along forest walk to huge junipers, 10° 45' 06"S, 33° 53' 15"E, 2000, Koekemoer 1898 (PRE).
Marchantiaceae – genus unknown


Pallavicinia lyelli (Hook.) Carruth.

Malawi. Nyika National Park, South Circular Route, 10° 39' 54''S, 33° 45' 06''E, 2000, Koekemoer 1833 (PRE).

Malawi. Nyika National Park, South Circular Route to Chelinda Bridge, 10° 39' 35''S, 33° 49' 02''E, 2000, Koekemoer 1813 (PRE).

Philonotis africana (Müll.Hal.) Rehmann ex Paris

Malawi. Nyika National Park, Chisanga Falls, forest floor on river-bank, 10° 53' 15''E, 2000, Koekemoer 1894 (PRE); Juniper Forest near Chelinda Bridge, 10° 35' 03''S, 33° 53' 15''E, 2000, Koekemoer 1874 (PRE); Juniper Forest near river crossing, 10° 32' 09''S, 33° 51' 17''E, 2000, Koekemoer 1762 (PRE).

Brachythecium salebrosum (Hoffm. ex F.Weber & D.Mohr) Schimp.

Malawi. Nyika National Park, Juniper Forest, along streambank, 10° 45' 06''S, 33° 53' 15''E, 2000, Koekemoer 1916 (PRE); South Circular Route to Chelinda Bridge, 10° 37' 40''S, 33° 48' 21''E, 2000, Koekemoer 1810 (PRE).

Brachythecium sp.

Malawi. Nyika National Park, South Circular Route between Kasaramba and Chelinda Camp, 10° 38' 09''S, 33° 52' 17''E, 2000, Koekemoer 1820 (PRE).

Riccia sp.


Bartramia sp.

Malawi. Nyika National Park, between Chelinda Bridge and Dembo River crossing, near bridge, 10° 32' 09''S, 33° 51' 17''E, 2000, Koekemoer 1762 (PRE).

Brachytheciaceae


cf. Brachytheciaceae

Malawi. Nyika National Park, forest patch W. of Mpopoti turnoff from road between Chelinda and Nganda, 10° 29' 18''S, 33° 49' 17''E, 2000, Koekemoer 1850 (PRE).

Bryaceae

Anomobryum julaceum (Schrad. ex P.Gaertn, B.Mey. & Scherb.) Schimp.

Malawi. Nyika National Park, Juniper Forest, downstream from the bridge, 10° 45' 06''S, 33° 53' 15''E, 2000, Koekemoer 1916 (PRE); South Circular Route to Chelinda Bridge, 10° 37' 40''S, 33° 48' 21''E, 2000, Koekemoer 1810 (PRE).

Anomobryum sp.

Malawi. Nyika National Park, South Circular Route to Chelinda Bridge, on bare rock in open patch in forest, 10° 39' 35''S, 33° 49' 02''E, 2000, Koekemoer 1814 (PRE).

Brachymeniaceae

Malawi. Nyika National Park, along road to Juniper Forest, 10° 45' 06''S, 33° 53' 15''E, 2000, Koekemoer 1894 (PRE).

Bryum andicola Hook.

Malawi. Nyika National Park, South Circular Route to Chelinda Bridge, on bare rock in open patch in forest, 10° 39' 35''S, 33° 49' 02''E, 2000, Koekemoer 1814 (PRE); Chisanga Falls, forest floor on river-bank, 10° 32' 15''S, 33° 41' 12''E, 2000, Koekemoer 1731 (PRE); Juniper Forest, downstream from the bridge, 10° 45' 06''S, 33° 53' 15''E, 2000, Koekemoer 1907 (PRE); Chisanga Falls, 10° 32' 15''S, 33° 41' 12''E, 2000, Koekemoer 1733 (PRE).

Bryum torquescens Bruch ex De Not.

Malawi. Nyika National Park, forest patch W. of Mpopoti turnoff from road between Chelinda and Nganda, 10° 29' 18''S, 33° 49' 17''E, 2000, Koekemoer 1848 (PRE).

Bryum sp.

Malawi. Nyika National Park, Chisanga Falls, 10° 32' 15''S, 33° 41' 12''E, 2000, Koekemoer 1733 (PRE); Chisanga Falls, forest floor on river-bank, 10° 32' 15''S, 33° 41' 12''E, 2000, Koekemoer 1730 (PRE); Juniper Forest, downstream from the bridge, 10° 45' 06''S, 33° 53' 15''E, 2000, Koekemoer 1908 (PRE); Chosi Viewpoint, amongst grass tufts, 10° 36' 46''S, 33° 45' 24''E, 2000, Koekemoer 1674 (PRE).

Rhodobryum cf. keniae

Malawi. Nyika National Park, in pine forest near Chelinda Camp site, on forest floor, 10° 35' 03''S, 33° 48' 03''E, 2000, Koekemoer 1698 (PRE); Chisanga Falls, below top waterfall, between rocks, 10° 32' 15''S, 33° 41' 12''E, 2000, Koekemoer 1729 (PRE).

Rhodobryum sp.

Malawi. Nyika National Park, Juniper Forest, downstream from the bridge, 10° 45' 06''S, 33° 53' 15''E, 2000, Koekemoer 1914 (PRE).
DICRANACEAE

Campylopus sp.
Malawi. Nyika National Park, Chisanga Falls, below top waterfall, 10° 32' 15''S, 33° 41' 12''E, 2000, Koekemoer 1728 (PRE); South Circular Route at Chelinda Bridge, 10° 40' 15''S, 33° 51' 21''E, 2000, Koekemoer 1790 (PRE); Juniper Forest, downstream from the bridge, 10° 45' 06''S, 33° 53' 15''E, 2000, Koekemoer 1905 (PRE).

Dioranella sp.

cf. Metzleria sp.
Malawi. Nyika National Park, South Circular Route to Chelinda Bridge, 10° 39' 35''S, 33° 49' 02''E, 2000, Koekemoer 1812 (PRE).

DITRICHACEAE

Ditrichum sp.
Malawi. Nyika National Park, South Circular Route at Chelinda Bridge, 10° 40' 15''S, 33° 51' 21''E, 2000, Koekemoer 1787 (PRE).

Pleuridium sp.

ENTODONTACEAE

cf. Entodonaceae
Malawi. Nyika National Park, Juniper Forest, along path to large junipers, 10° 45' 06''S, 33° 53' 15''E, 2000, Koekemoer 1896 (PRE).

Erythrodontium sp.
Malawi. Nyika National Park, Juniper Forest, downstream from the bridge, 10° 45' 06''S, 33° 53' 15''E, 2000, Koekemoer 1906 (PRE).

FISSIDENTACEAE

Fissidens asplenoides Hedw.
Malawi. Nyika National Park, between Chelinda Bridge and Dembo River crossing, near bridge, 10° 32' 09''S, 33° 51' 17''E, 2000, Koekemoer 1759 (PRE).

Fissidens ovatus Brid.
Malawi. Nyika National Park, Juniper Forest, downstream from the bridge, 10° 45' 06''S, 33° 53' 15''E, 2000, Koekemoer 1909 (PRE).

Fissidens near bryoides
Malawi. Nyika National Park, forest patch W. of Mpopoti turnoff from road between Chelinda and Nganda, 10° 29' 18''S, 33° 49' 17''E, 2000, Koekemoer 1848 (PRE).

Fissidens sp.
Malawi. Nyika National Park, South Circular Route, 10° 39' 54''S, 33° 45' 06''E, 2000, Koekemoer 1836 (PRE); South Circular Route at Chelinda Bridge, 10° 40' 15''S, 33° 51' 21''E, 2000, Koekemoer 1791 (PRE).

FUNARIACEAE

Funaria hygrometrica Hedw.
Malawi. Nyika National Park, Nganda Hill, 10° 26' S, 33° 50'E, Phiri 3664;

GIGASPERMACEEAE

Gigaspermum repens (Hook.) Lindb.
Malawi. Nyika National Park, Chosi Viewpoint, amongst grass tufts, 10° 46' 46''S, 33° 45' 24''E, 2000, Koekemoer 1674 (PRE); Chosi Viewpoint, amongst grass tufts, 10° 36' 46''S, 33° 45' 24''E, 2000, Koekemoer 1675 (PRE); South Circular Route to Chelinda Bridge, 10° 37' 40''S, 33° 48' 21''E, 2000, Koekemoer 1810 (PRE).

HEDWIGIACEAE

Braunia secunda (Hook.) Bruch & Schimp.
Malawi. Nyika National Park, Juniper Forest, downstream from the bridge, 10° 45' 06''S, 33° 53' 15''E, 2000, Koekemoer 1906 (PRE).

HYNPCAEAE

Hypnaceae – genus unknown
Malawi. Nyika National Park, in pine forest near Chelinda Camp site, on forest floor, 10° 35' 03''S, 33° 48' 03''E, 2000, Koekemoer 1701 (PRE); South Circular Route, 10° 39' 35''S, 33° 49' 02''E, 2000, Koekemoer 1818 (PRE); between Kasaramba and Chelinda Camp, on fallen tree trunk, 10° 38' 09''S, 33° 52' 17''E, 2000, Koekemoer 1823 (PRE); South Circular Route, 10° 39' 54''S, 33° 45' 06''E, 2000, Koekemoer 1835 (PRE); Juniper Forest, along forest walk to huge junipers, 10° 45' 06''S, 33° 53' 15''E, 2000, Koekemoer 1897 (PRE).

cf. Hypnaceae
Malawi. Nyika National Park, Juniper Forest, 10° 45' 06''S, 33° 53' 15''E, 2000, Koekemoer 1890 (PRE); Juniper Forest near river crossing, 10° 45' 06''S, 33° 53' 15''E, 2000, Koekemoer 1901 (PRE).
**LEUCOBRYACEAE**

*Leucobryum* sp.  
Malawi. Nyika National Park, Chisanga Falls, close to upper falls, 10°32'00"S, 33°41'12"E, 2000, Koekemoer 1736 (PRE).

**METEORIACEAE**

*Meteoriaceae (Aerobryopsis?)*  
Malawi. Nyika National Park, in pine forest near Chelinda Camp site, on forest floor, 10°35'03"S, 33°48'03"E, 2000, Koekemoer 1700 (PRE).

**MNIACEAE**

*Plagiomnium rhynchophorum* (Hook.) T.J.Kop. var. *reidii* (Dixon) T.J.Kop.  
Malawi. Nyika National Park, forest patch W. of Mpopoti turnoff from road between Chelinda and Nganda, 10°29'18"S, 33°49'17"E, 2000, Koekemoer 1847 (PRE); South Circular Route between Kasaramba and Chelinda Camp, 10°38'09"S, 33°52'17"E, 2000, Koekemoer 1821 (PRE).  
*Pohlia* sp.  
Malawi. Nyika National Park, South Circular Route at Chelinda Bridge, 10°40'15"S, 33°51'21"E, 2000, Koekemoer 1897 (PRE); South Circular Route at Chelinda Bridge, 10°40'15"S, 33°51'21"E, 2000, Koekemoer 1791 (PRE).

**ORTHOTRICHACEAE**

*Macromitrium* sp.  
Malawi. Nyika National Park, Chisanga Falls, close to waterfall, 10°32'15"S, 33°41'12"E, 2000, Koekemoer 1732 (PRE).

**PILOTIRCHACEAE**

*Cyclodictyon* sp.  
Malawi. Nyika National Park, South Circular Route, 10°39'35"S, 33°49'02"E, 2000, Koekemoer 1816 (PRE); South Circular Route, 10°39'54"S, 33°45'06"E, 2000, Koekemoer 1832 (PRE); South Circular Route, 10°39'54"S, 33°45'06"E, 2000, Koekemoer 1834 (PRE).

**PLAGIOTHECIACEAE**

*Plagiothecium* sp.  
Malawi. Nyika National Park, Juniper Forest, along forest walk to huge junipers, 10°45'06"S, 33°53'15"E, 2000, Koekemoer 1897 (PRE).  
*cf. Plagiotheciaceae*  

**POLYTRICHACEAE**

*Pogonatum* cf. *penichaetiale*  
Malawi. Nyika National Park, road cutting near Chelinda Bridge, 10°35'20"S, 33°48'41"E, 2000, Koekemoer 1702 (PRE); South Circular Route at Chelinda Bridge, 10°40'15"S, 33°51'21"E, 2000, Koekemoer 1787 (PRE).  
*Pogonatum* sp.  
*Polytrichum commune* Hedw. ♦  
Malawi. Nyika National Park, South Circular Route at Chelinda Bridge, streamside, 10°40'15"S, 33°51'21"E, 2000, Koekemoer 1782 (PRE).  
*Polytrichum subpilosum* P.Beauv.  

**POTTIACEAE**

*Leptodontium* near *viticulosoides*  
Malawi. Nyika National Park, Juniper Forest, downstream from the bridge, 10°45'06"S, 33°53'15"E, 2000, Koekemoer 1911 (PRE).  
*Leptodontium* sp.  
Malawi. Nyika National Park, Juniper Forest, downstream from the bridge, 10°45'06"S, 33°53'15"E, 2000, Koekemoer 1906 (PRE); Juniper Forest, downstream from the bridge, 10°45'06"S, 33°53'15"E, (1996) Koekemoer 1905 (PRE).  
*Tortella* cf. *xanthocarpa*  

**PTERIGYNANDRACEAE**

*Trachyphyllum* sp.  
**RACOPILACEAE**

**Racopilum capense** Müll.Hal. ex Broth.
Malawi. Nyika National Park, Juniper Forest, downstream from the bridge, 10° 45' 06"S, 33° 53' 15"E, 2000, Koekemoer 1913 (PRE).

**SEMATOPHYLLACEAE**

**Sematophyllum subpinnatum** (Brid.) E.Britton
Malawi. Nyika National Park, South Circular Route at Chelinda Bridge, 10° 40' 15"S, 33° 51' 21"E, 2000, Koekemoer 1789 (PRE).

**SPHAGNACEAE**

**Sphagnum africanum** Welw. & Duby
Malawi. Nyika National Park, Lake Kaulime, 10° 34'S, 33° 45'E, 2000, Phiri 3703 (UZL).

**SPLACHNACEAE**

**Tayloria orthodonta** (P.Beauv.) Wijk & Margad.
Malawi. Nyika National Park, in pine forest near Chelinda Camp site, on forest floor, 10° 35' 03"S, 33° 48' 03"E, 2000, Koekemoer 1699 (PRE).

**THUIDIACEAE**

**Thuidium sp.**
Malawi. Nyika National Park, Juniper Forest, along forest walk to huge junipers, 10° 45' 06"S, 33° 53' 15"E, 2000, Koekemoer 1897 (PRE).

**UNIDENTIFIED LEAFY LIVERWORTS**

Malawi. Nyika National Park, Chisanga Falls, close to upper falls, 10° 32' 15"S, 33° 41' 12"E, 2000, Koekemoer 1737 (PRE).

Malawi. Nyika National Park, between Chelinda Bridge and Dembo River crossing, near bridge, 10° 32' 09"S, 33° 51' 17"E, 2000, Koekemoer 1764 (PRE).


Malawi. Nyika National Park, South Circular Route at Chelinda Bridge, 10° 40' 15"S, 33° 51' 21"E, 2000, Koekemoer 1788 (PRE).


Malawi. Nyika National Park, South Circular Route between Kasaramba and Chelinda Camp, 10° 38' 09"S, 33° 52' 17"E, 2000, Koekemoer 1822 (PRE).


Malawi. Nyika National Park, forest patch W. of Mpopoti turnoff from road between Chelinda and Nganda, 10° 29' 18"S, 33° 49' 17"E, 2000, Koekemoer 1849 (PRE).

Malawi. Nyika National Park, Juniper Forest, downstream from the bridge, 10° 45' 06"S, 33° 53' 15"E, 2000, Koekemoer 1915 (PRE).

Malawi. Nyika National Park, South Circular Route between Kasaramba and Chelinda Camp, 10° 38' 09"S, 33° 52' 17"E, 2000, Koekemoer 1821 (PRE).

Malawi. Nyika National Park, South Circular Route to Chelinda Bridge, 10° 37' 40"S, 33° 48' 21"E, 2000, Koekemoer 1810 (PRE).

Malawi. Nyika National Park, road between Chelinda Camp and Kasaramba, 10° 38' 09"S, 33° 52' 17"E, 2000, Koekemoer 1819 (PRE).


Malawi. Nyika National Park, Jalawe Viewpoint, near the top, 10° 21' 41"S, 33° 47' 51"E, 2000, Koekemoer 1877 (PRE).
Asplenium aethiopicum (Burm.f.) Becherer
Terrestrial or lithophytic fern, rhizome creeping; frond 2-pinnate to 3-pinnate, ultimate segments lanceolate, acute to cuspidate; sori linear, to 8 mm long; a widespread fern of evergreen forests, rocky hills in grassland, and along streams in woodland; very variable in form according to habitat; 1,000–2,200 m. Throughout the moister parts of Africa.


Malawi. Nyika Plateau, Rufuri Stream, 1959, Robson 443 (K, SRGH); Dembo Bridge, 2000, Willis 20 (PRE).


Asplenium boltonii Hook. ex Schelpe
Terrestrial fern, rhizome erect with tufted fronds; fronds gemmiferous at base of apical pinna, pinnate, pinnae in up to 28 pairs, margins irregularly dentate; sori broadly elliptic, to 4 mm long; in montane forests; 1,800–2,200 m. South Africa through eastern Africa; also in Madagascar and Réunion. Rare on Nyika and only recorded from the two listed localities.


Asplenium dregeanum Kunze
Lithophytic or epiphytic fern, rhizome erect; frond to 390 x 60 mm, deeply 2-pinnatifid, ultimate segments narrowly oblong-obtuse; sori ca 2 mm long, elliptic; in montane forests; 1,950–2,150 m. South Africa and widespread in tropical Africa.


Malawi. Nyika Plateau, without precise locality, Dowsett-Lemaire 225 (K).

Zambia. Nyika Plateau, 9 km S.W. of Rest House, 1958, Robson & Angus 345 (K, LISC, SRGH); Manyenyere Forest, 2000, Phiri 3904 (PRE, UZL).

Asplenium erectum Bory ex Willd. var. erectum
Tufted terrestrial fern, fronds narrowly oblong, to 290 x 35 mm, pinnate, pinnae with basal lobe not free; sori 0.5–2 mm long, narrowly oblong; in deep shade of evergreen mist forest; 0–1,700 m. South Africa, Mozambique, and Malawi; also in Madagascar and the Mascarene islands. This is the first record of this fern for Malawi.


Asplenium erectum Bory ex Willd. var. usambarense (Hieron.) Schelpe
As for A. erectum var. erectum, but with the fronds linear and the basal lobes of the pinnate free; a terrestrial fern of deeply shaded forest floors in montane forest; 1,500–2,500 m. South Africa and through much of tropical Africa.


Malawi. Nyika Plateau, Kasaramba Peak, Simon, Williamson & Ball 1728 (K); Zovochipolo, 2000, Burrows & Burrows 6692 (MAL, NBG, UZL).


Asplenium friesianum C.Chr.
Terrestrial fern forming clumps, rhizome widely creeping; fronds to 900 x 260 mm, pinnate; sori oblong, to 4 mm long; in wet mist forest and scrub; 1,700–2,300 m. South Africa and widespread in tropical Africa. One of the three most common ground ferns of the eastern escarpment away from streams (Dowsett-Lemaire 1985), but not so far recorded from the Zambian Nyika.


Malawi. Nyika Plateau, without precise locality, 1946, Brass 17273 (K, SRGH); Mpopoti, 2000, Mwanyambo 359 (MAL).

Asplenium hypomelas Kuhn
Rhizome erect with tufted fronds; fronds large, to 1 m long, 0.5 m wide, deeply 4-pinnatifid; sori elliptic, on edge of ultimate lobes; a fern of very wet mist forest in ravines, almost invariably found growing on the lower trunks of the tree fern Cyathea maniniana; 1,830–2,300 m. Widespread in tropical Africa.


Asplenium linckii Kuhn
Terrestrial fern, rhizome creeping; fronds more or less tufted, to 330 x 270 mm, 3- to 4-pinnate, margins sharply serrate; sori linear, 3–4 mm long; in deeply shaded and moist forest floors; 1,500–2,000 m. Zimbabwe northwards through eastern Africa. Rare.


Asplenium lobatum Pappe & Raws. var. lobatum
Terrestrial fern, rhizome erect; fronds tufted, erect, not proliferous, to 350 x 120 mm, 2-pinnate to 3-pinnatifid, margins coarsely serrate; sori linear, to 4 mm long; on deeply shaded forest floors; 2,125–2,225 m. South Africa to Malawi; also in Madagascar. Rare, possibly represented on the Nyika by a single specimen.


Asplenium loxoscaphoides Baker ●
Rhizome erect; fronds tufted, to 450 mm long, deeply 2-pinnatifid to 3-pinnatifid; sori elliptic, single on the edge of the ultimate lobes; an epiphytic or terrestrial fern of montane forests and thickets; 2,100 m. Reasonably widespread in the moist forests of the Nyika; the only locality from the Flora zambesiaca area; otherwise confined to E. Africa. A. loxoscaphoides is regarded by some (R. Johns, pers. comm.) as merely a form of A. rutifolium, but we prefer to recognise it as a distinct species for now.


Malawi. Nyika Plateau, 6 km from Zambia Rest House on Chelinda Road, Simon, Williamson & Ball 1802 (BOL, SRGH); Juniper Forest Reserve, 2000, Burrows & Burrows 6935 (K, MAL, NBG, UZL).

Asplenium lunulatum Sw.
Terrestrial fern; rhizome erect to procumbent; fronds tufted, pinnate, 150–350 mm long, linear-lanceolate, gemmiferous at the apex on some fronds; sori linear to slightly curved, 2–3 mm long; in deep shade of montane forest; ca 2,300 m. Very rare and only known from this locality. The northernmost record of this mainly South African species. The taxonomy of this complex is still unsettled.


Malawi. Nyika Plateau, Mwenembele Forest, Dowsett-Lemaire 785 (K).

Asplenium mannii Hook.
Small epiphytic fern spreading by means of a long, widely creeping wire-like rhizome; fronds erect, 2-pinnatifid to pinnate basally, to pinnate, lanceolate; sori oval, 1.5–2 mm long, 1 per lobe margin; in moist evergreen forest, often common; 1,200–2,200 m. Widespread in tropical Africa; also Madagascar.


Zambia. Nyika Plateau, Kangampande Mountain (Chowo Forest), 1952, White 2710 (BM, K); Chowo Forest, 2000, Phiri 4023 (PRE, UZL).

Asplenium megalura Hieron. ●
Rhizome erect; fronds tufted, often pendulous in forest habitats, pinnate, to 450 x 120 mm, apical segment often tricuspidate; sori linear, to 8 mm long; an epiphyte of moist evergreen mist forest, fronds shrivelling in win-
**Asplenium erectum**
var. *erectum*
Del. Sandie Burrows

**Blechnum attenuatum**
var. *attenuatum*
Del. Sandie Burrows

**Cyathea manniana**
Del. Sandie Burrows

**Bliotiella natalensis**
Del. Sandie Burrows
ter; 1,370–2,200 m. N. Zambia, Malawi, and N. Mozambique northwards through tropical Africa. Fairly common on the Nyika.

**Source.** Schelpe (1970: 181).

**Malawi.** Nyika Plateau, Chukwula Waterfall, 1958, Robinson 3097 (SRGH); road to Chelinda Bridge, 2000, Burrows & Burrows 6887 (NBG).

**Zambia.** Nyika Plateau, Chowo Rocks, Simon, Williamson & Ball 1671 (K); Chowo Forest, 2000, Phiri 4021 (UZL).

**Asplenium monanthes L.**

Rhizome more or less erect; fronds tufted with black stipules, to 300 x 25 mm, linear, pinnate, pinnae oblong-dimidiate; sori 1, rarely 2, per pinna, narrowly oblong; a terrestrial fern of shaded forest floors, fairly widespread on the Nyika; 1,830–2,400 m. South Africa northwards, somewhat sporadically, through tropical Africa; also in S. America.

**Source.** Schelpe (1970: 175).

**Malawi.** Nyika Plateau, 1958, Robson 441 (K, LISC, SRGH).

**Asplenium protensum Schrad.**

Rhizome creeping with spaced fronds; fronds long, arching, proliferous near the tip and often rooting where the plantlets touch soil; fronds pinnate, finely hairy; sori linear to narrowly oblong, to 5 mm long; lithophytic on mossy rocks, often near streams in wet evergreen forest; 1,300–2,300 m. South Africa and widespread in tropical Africa.

**Source.** Schelpe (1970: 179).

**Malawi.** Nyika Plateau, Rufiri Stream, 1958, Robson & Angus 444 (K, LISC, SRGH); Zovochipolo Forest, 2000, Burrows & Burrows 6894 (MAL, NBG).

**Zambia.** Nyika Plateau, without precise locality, Robinson 3021 (K).

**Blechnum attenuatum (Sw.) Mett. var. attenuatum**

Rhizome creeping, less than 20 mm diameter, fronds arching, pinnate, the bases of the pinnae adnate to the rachis, pinnae narrowly lanceolate-attenuate; fronds dimorphic, the fertile fronds with the pinnae narrowly contracted, linear, with narrowly linear sori running the length of the pinna; lithophytic, epiphyte or (rarely) terrestrial, in forest or wet scrub, often along streams or on cliffs along drip-lines or next to waterfalls; 1,800–2,200 m. South Africa to Zambia and Kenya.

**Malawi.** Nyika Plateau, Nyanikhowa Forest, Dowsett-Lemaire 535 (MAL).

**Blechnum australis L.**

Small tufted fern, often in groups, rhizome creeping; fronds tufted, arching, to 470 x 125 mm, pinnate, pinnae narrowly oblong, apex mucronate, the acroscopic base often lobed; fertile fronds with linear pinnae, sori linear, extending most of the length of the pinnae; in riverine forest; 0–2,200 m.

**Blechnum tabulare**

Large tree fern with a stout blackish trunk 200–450 mm thick and to 5 m tall; leaves 3-pinnatifid to 3 pinnate, to 2 m long, sparsely hairy on both surfaces; sori 1, rarely 2, per pinna, margin lobed acroscopically; sorus 2 mm long, oblong, up to 5 mm per pinna; epiphytic in evergreen montane forest; 1,850–2,000 m on Nyika.

**Source.** Dowsett-Lemaire (1985: 373).

**Malawi.** Nyika Plateau, Zovochipolo, Dowsett-Lemaire 213 (K).

**Asplenium theciferum** (H.B.K.) Mett. var. concinnum (Schrad.) C.Chr.

Rhizome erect; fronds tufted, erect to arching, to 200 x 45 mm, deeply 2-pinnatifid with obliquely spathulate lobes; sori oblong, set at the ends of the lobes; an epiphyte in evergreen montane forest or swamp forest; 1,200–2,400 m. South Africa, Zimbabwe, Mozambique, Malawi, and Zambia.

**Source.** Korns (1979: 104).

**Malawi.** Nyika Plateau, Jalaive Viewpoint, 2000, Thera 3072 (MAL); without precise locality, Chapman 88 (BM).

**Asplenium sandersonii** Hook.

Rhizome more or less erect, fronds tufted, arching, with a proliferating bud on the end of a naked extension of the rachis, pinnate, pinnae oblong, margins lobed acroscopically; sori 2 mm long, oblong, up to 5 mm per pinna; epiphytic in evergreen montane forest; 1,850–2,000 m on Nyika.


**Asplenium smedsi Pic.Serm.**

Tufted fern with pinnate fronds; sori linear to elliptic; an occasional to locally frequent epiphytic fern in the Zovochipolo forests; 2,125–2,225 m.

Not collected elsewhere on the plateau or elsewhere from the *Flora zambesiaca* area; also in E. Africa.

**Source.** Dowsett-Lemaire (1985: 373).

**Malawi.** Nyika Plateau, Zovochipolo, Dowsett-Lemaire 213 (K).

**Asplenium zambesiaca**

Tufted fern on the end of a naked extension of the rachis, pinnate, pinnae oblong, margins lobed acroscopically; sori 2 mm long, oblong, up to 5 mm per pinna; epiphytic in evergreen montane forest; 1,850–2,000 m on Nyika.

**South Africa and sporadically in tropical Africa. Very rare on Nyika.**

**Malawi.** Nyika Plateau, without locality or collecting details (Dowsett-Lemaire 1985: 371).

**Asplenium theciferum**

Small tree fern with a short trunk ca 150 mm thick; fronds 2-pinnate with pinnules adnate to the costae, or 3-pinnatifid, stipae scales up to 20 mm long; sori round, set in 2 rows on either side of the costule; on shaded stream banks in forest and wet woodland; 600–1,500 m. Zimbabwe northwards to Angola, D.R.C., and Tanzania; also in Madagascar.

**Malawi.** Nyika Plateau, Lake Kaulime, 2000, Phiri 3728 (UZL); Chelinda Bridge, 2000, Thera 3034 (MAL).

**Zambia.** Nyika Plateau, without precise locality, Fanshawe 7279 (NDO).

**Cathaysia dregii** Kunze

Large tree fern with a stout blackish trunk 200–450 mm thick and to 5 m tall; leaves 3-pinnatifid to 3 pinnate, stipe scales up to 40 mm long; sori round, borne along each side of the costae; along stream banks in montane grassland, in full sun or light shade; 900–1,800 m. Throughout most of tropical Africa; also in Madagascar.

**Source.** Schelpe (1970: 74).

**Malawi.** Nyika Plateau, Mkwanda Mountain, Willis & Luhanga 176 (PRE).

**Zambia.** Nyika Plateau, 4 km S.W. of Rest House, 1958, Robson 316 (BM, K, LISC, SRGH).

**Cathaysia thomsonii** Hook.

Tall tree fern with a slender stem up to 7 m tall; fronds 3-pinnatifid, dark green above, pale to glaucous below, stipes set with short, sharp prickles; sori round, set close against the costules; in very wet areas in evergreen mist forest, often forming colonies by means of suckers; 1,400–2,300 m. Zimbabwe northwards most of the wetter parts of tropical Africa.

**Source.** Schelpe (1970: 74).

**Malawi.** Nyika Plateau, eastern foot of Nganda, 1972, Brunmitt, Munthali & Synge 83 (K).

**Zambia.** Nyika Plateau, 9 km S.W. of Rest House, 1958, Robson 344 (BM, K, LISC, MPR, NDO, SRGH).

**Cathaysia thomsonii** Baker

Small tree fern with a short trunk ca 150 mm thick; fronds 2-pinnate with pinnules adnate to the costae, or 3-pinnatifid, stipae scales up to 20 mm long; sori round, set in 2 rows on either side of the costule; on shaded stream banks in forest and wet woodland; 600–1,500 m. Zimbabwe northwards to Angola, D.R.C., and Tanzania.

**Source.** Dowsett-Lemaire (1985: 373).

**Malawi.** Nyika Plateau, without precise locality, Dowsett-Lemaire 793 (herbarium not stated); Kaulime Road, N. of Lake Kaulime, Willis 103 (PRE).

**Blotiella natalensis** (Hook.) Tryon

Large terrestrial fern, rhizome erect, 150–250 mm diameter; fronds tufted, 2-pinnatifid to 3-pinnatifid, to 2 m long, sparsely hairy on both surfaces; sori marginal in the sinuses between the ultimate lobes, indusiate; in montane...
dryopteridaceae

Forest, often near streams; 1,000–1,900 m. South Africa to D.R.C., Uganda, and Tanzania. The Nyika collection has no rhizome and therefore its identity is uncertain.


Pteridium aquilinum (L.) Kuhn var. aquilinum

Terrestrial fern with a slender subterranean creeping rhizome; fronds closely-spaced, pinnatifid to 4-pinnatifid; sori round, margins incised to deeply shaded streams in moist forest, sometimes near waterfalls; rare; 1,700–2,200 m. South Africa northwards along the Afromontane mountain chain to Kenya.

Malawi. Nyika Plateau, Chelinda Camp, 2000, Burrows & Burrows 6949 (MAL, NBG, PRE, SRGH, UZL); without precise locality, Pawek 11242 (MAL).


Diplozium zanzibaricum (Forssk.) Moore ex Woynar

Large terrestrial fern, rhizome erect; fronds tufted, stipes pale, densely set with stiff hair-like scales which stand out at right angles from the stipe, lamina broadly triangular, 4-pinnatifid to 4-pinnate, basal pinnae basiscopically-developed, margins serrate, costae with scattered ovate scales; sori round, 1 mm diameter, indusiate; in shaded forest clearings and forest margins in high-rainfall areas; 1,890–2,350 m. Zimbabwe northwards to Kenya.


Malawi. Nyika Plateau, without precise locality, 1946, Brass 17285 (K); Dembo Bridge, 2000, Willis 19 (PRE).

Zambia. Nyika Plateau, Kangampande Mountain (Chowo Forest), 1952, White 2725 (K).

Dryopteris kilimensis (Kuhn) Kurtz

Terrestrial fern, rhizome creeping, then ascending; fronds tufted, arching, broadly triangular, 4-pinnatifid to 4-pinnate, basal pinnae basiscopically-developed, serrate, costa with scattered ovate scales; sori round, to 1 mm diameter, indusiate; in shaded forest clearings and forest margins in high-rainfall areas; 1,890–2,350 m. Zimbabwe northwards to Kenya.


Malawi. Nyika Plateau, without precise locality, 1946, Brass 17285 (K); Dembo Bridge, 2000, Willis 19 (PRE).

Zambia. Nyika Plateau, Kangampande Mountain (Chowo Forest), 1952, White 2725 (K).

Megalastrium lanuginosum (Wildl. ex Kaulf.) Holttum

Ctenitis lanuginosa (Wildl. ex Kaulf.) Copel.

Robust terrestrial fern, rhizome erect, stouter, fronds arching, triangular, to 2 m long, 3- to 4-times divided, thinly hairy on both surfaces; sori round, to 2 mm diameter, indusium kidney-shaped; in deep shade of forest near streams; 100–1,900 m. South Africa to Kenya; also on Madagascar and Bioko. This is the first record for the Nyika Plateau and for Zambia.


Polystichum transvaalense N.C.Anthony

Polystichum setiferum (Forssk.) Moore ex Woynar

Terrestrial fern, rhizome erect, fronds tufted, shuttlecock-like, erect to arching, ca 350 x 140 mm, 2-pinnate to 3-pinnatifid, upper surface dark green, glossy, hairless, margins with hair-tipped serrations; sori round, 1–1.5 mm diameter, indusiate; in evergreen forest, usually along shaded streams; 2,225 m. South Africa to Cameroon, Kenya, and Sudan.


Malawi. Nyika, Zovochipolo, la Croix 4634 (PRE).


Dryopteris athamantica (Kunze) Kurtz

Terrestrial fern, rhizome shortly creeping; fronds tufted, erect, 3-pinnatifid to 3-pinnate, pinnae set at 45° or less to the rachis; sori round, 1–3 per lobes, indusiate; on deeply shaded forest floors, often near water; 1,100–1,250 m. South Africa to Tanzania and Zambia.


Dryopteris inaequalis (Schlechtld.) Kurtz

Terrestrial fern, rhizome prostrate, 8–35 mm thick; fronds tufted, arching, ovate to lanceolate, 3-pinnatifid to 4-pinnatifid, pinnae set at 70–80° from the rachis; sori round, set in 2 rows along the costa, indusiate; in shaded areas in forest, forest margins, stream banks, and moist woodland; 730–2,400 m. Throughout much of tropical Africa; also in Madagascar. A variable species, probably divisible into a number of smaller taxa.


Malawi. Nyika Plateau, Rufiri River, 5.6 km from Rest House, Robson 442 (K); Dembo Bridge, 2000, Willis 19 (PRE).

Zambia. Nyika Plateau, Kangampande Mountain (Chowo Forest), 1952, White 2725 (K).

Dryopteris squamiseta (Hook.) Kurtz

Terrestrial fern, rhizome erect; fronds tufted, stipes pale, densely set with stiff hair-like scales which stand out at right angles from the stipe, lamina 3-pinnate to 4-pinnatifid; sori round, characteristically confined to the ends of the lobes; on shaded stream banks and seepage zones in forest; 1,580–2,200 m. South Africa northwards to Cameroon, Kenya, and Sudan; also on Madagascar and the Mascarenes.


Polystichum transvaalense N.C.Anthony

Polystichum setiferum (Forssk.) Moore ex Woynar

Terrestrial fern, rhizome erect, fronds tufted, shuttlecock-like, erect to arching, ca 350 x 140 mm, 2-pinnate to 3-pinnatifid, upper surface dark green, glossy, hairless, margins with hair-tipped serrations; sori round, 1–1.5 mm diameter, indusiate; in evergreen forest, usually along shaded streams; 2,225 m. South Africa to Cameroon, Kenya, and Sudan.


Malawi. Nyika, Zovochipolo, la Croix 4634 (PRE).


Dryopteris zambesiacum Schelpe

Very similar to P. transvaalense, but with the fronds closely spaced, but not shuttlecock-like, and the pinnule margins serrate-crenate, not hair-tipped;
Pteridium aquilinum var. centrali-africanum
Del. Sandie Burrows

Arachniodes foliosa
Del. Sandie Burrows

Didymochlaena truncatula
Del. Sandie Burrows

Athyrium schimperi
Del. Sandie Burrows
Diplazium zanzibaricum
Del. Sandie Burrows

Dryopteris inaequalis
Del. Sandie Burrows

Megalastrum lanuginosum
Del. Sandie Burrows

Polystichum zambesiacum
Del. Sandie Burrows
in evergreen forest, sometimes along shaded streams or on forest margins; 1,800–2,250 m. Zimbabwe, Mozambique, Malawi, and Tanzania.

**Source.** Roux (1998).

**Malawi.** Nyika Plateau, without precise locality, 1946, Brass 17255 (K, PRE, SRGH).

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**Tectaria gemmifera** (Fée) Alston ✓

Terrestrial fern, rhizome erect; fronds tufted, arching, triangular, 2-pinnatifid to 3-pinnate on the strongly basiscopically developed basal pinnae, thinly hairy, bearing scattered gemmae on the rachis and costules of the upper surface; sori circular, 1–2 mm diameter, indusiate; in mid-altitude forests, forming extensive colonies; 1,170–2,200 m. South Africa northwards throughout tropical Africa; also on Madagascar and the Mascarenes.

**Source.** Kornas (1979: 106).

**Malawi.** Nyika Plateau, Mwenembwe Forest, Chapman s.n. (herbarium not recorded).

**Zambia.** Nyika Plateau, Manyenjere Forest, 2000, Phiri 4044 (UZL).

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**Equisetaceae**

**Equisetum ramosissimum** Desf. ✓

horsetail

Rhizome black, vertical (to 1.8 m deep) or horizontal, aerial stems erect, sparingly branched, conspicuously ribbed, apparently leafless, but with 10–20 scale-like leaves around the nodes; cones borne on the branch tips; a terrestrial grass-like plant of stream banks in woodland or grassland in light shade or full sun, on gravels, sands or mud; 630–1,350 m. Africa and Europe. Often overlooked because of its grass-like appearance.

**Source.** Mill (1979).

**Malawi.** Nyika Plateau, Vowwe River, 2000, Burrows & Burrows 6906 (MAL).

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**Gleicheniaceae**

**Gleichenia elongata** Baker ✓

Terrestrial fern, rhizome wiry, widely creeping; fronds widely spaced, erect, apparently paripinnate, branching dichotomously at the apex, ultimate segments broadly triangular/rounded, adnate to the costules; sori 1 per segment, exindusiate; along the banks of a small stream. Also on the high mountains of E. Africa, on forest margins and montane scrub. This is the only record of this species from the *Flora zambesiaca* region, not seen since 1952.

**Source.** Schelpe (1970: 48).

**Malawi.** Nyika Plateau, outside Nyika Juniper Reserve, 1952, Chapman 44 (BM).

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**Grammitidaceae**

**Grammitis rigescens** (Bory ex Willd.) Lellinger ✓

*Xiphopteris flabelliformis* (Poir.) Schelpe; *Melpomene flabelliformis* (Poir.) A.R.Sm. & R.C.Moran

Small epiphytic or lithophytic fern, rhizome shortly creeping; fronds erect, simple, 30–170 x 7–17 mm, deeply incised almost to the midrib, hairless; sori round, 1–4 per lobe, exindusiate; in moist mist forest at high altitudes, 2,200–2,400 m. South Africa (Drakensberg Mountains) northwards on many of the high mountains of tropical Africa; also on Madagascar and Réunion. Easily overlooked on account of its small size.

**Malawi.** Nyika Plateau, Mwenembwe Forest, Dowsett-Lemaire 833 (MAL).

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**Hymenophyllaceae**

**Crepidomanes melanotrichum** (Schltdl.) J.P.Roux ✓

*Trichomanes pyxidiferum* L. var. melanotrichum (Schltdl.) Schelpe; *Trichomanes melanotrichum* Schltdl.

Moss-like epiphytic or lithophytic fern, rhizome widely creeping, set with black hairs; fronds erect, ovate to lanceolate, 2–to 3-pinnatifid, 8–75 x 8–30 mm, hairless; sori set in a protruding conical structure; in moist, deeply shaded areas in forest, on rock-faces or tree boles; 1,450–2,200 m. Widespread throughout the moister parts of Africa; also on Madagascar.


**Malawi.** Nyika Plateau, Lake Kaulime, 2000, Burrows & Burrows 6863 (MAL), NGB, SRGH, UZL; without precise locality, Dowsett-Lemaire 45.

**Zambia.** Nyika Plateau, Kangampande Mountain (Chowo Forest), White 2728 (BM, K).

**Hymenophyllum kuhnii** C.Chr. ✓

*Hymenophyllum polyanthos* Sw. var. *kuhnii* (C.Chr.) Schelpe

Rhizome thread-like, creeping widely; stipe narrowly winged for most of its length; fronds pendulous, 30–600 x 15–70 mm, 3-pinnatifid, margins entire, glabrous throughout; soral valves entire; a common epiphytic moss-like fern of moist evergreen mist forest; 1,700–2,250 m. Zimbabwe northwards throughout the Afromontane regions of Africa.

**Malawi.** Nyika Plateau, Mwenembwe Forest, Dowsett-Lemaire 226 (MAL).

**Sphaerochionium capillare** (Desv.) Copel.

*Hymenophyllum capillare* Desv.

Rhizome thread-like, creeping widely; stipe not winged; fronds pendulous, 60–500 x 20–30 mm, 2–to 3-pinnatifid, margins entire, both surfaces densely set with stellate hairs, rachis not winged; sori terminal on ultimate lobes; on sheltered rock faces or tree fern boles, in wet evergreen mist forest, forming hanging mats; 1,700–2,140 m. South Africa northwards throughout the Afromontane regions of Africa; also on the Indian Ocean islands.

**Malawi.** Nyika Plateau, Mwenembwe Forest, Chapman 391 (MAL).

**Sphaerochionium splendidum** (Bosch.) Copel. ✓

*Hymenophyllum splendidum* Bosch.

Rhizome thread-like, widely-creeping; fronds pendulous, 80–400 x 17–32 mm, narrowly lanceolate to linear, set with numerous stellate hairs, rachis without a wing; sori terminal on the distal lobes of each pinna; on moist rock faces in wet evergreen mist forest; 1,900–2,500 m. Zimbabwe, Mozambique, and northwards through much of tropical Africa. Often confusingly found growing with *S. capillare* (above).

**Malawi.** Nyika Plateau, Mwenembwe Forest, Dowsett-Lemaire 227 (MAL).
Tectaria gemmifera
Del. Sandie Burrows

Gleichenia elongata
Del. Sandie Burrows

Equisetum ramosissimum
Del. Sandie Burrows

Grammitis rigescens
Del. Sandie Burrows

Gleichenia polypodioides
Crepidomanes melanotrichum
Del. Sandie Burrows

Sphaerocionium splendidum
Del. Sandie Burrows

Isoetes schweinfurthii
Del. Sandie Burrows
ISOETACEAE

 Isoetes schweinfurthii A.Braun
 Small grass-like herb, basal parts subtropical, with several erect, straight, tapering leaves arising from a small woody disc; leaves 100–300 mm long, megaspore and microspores in basal sporangia, causing a basal swelling; megaspores trilete on one side; in forest or rock outcrops; 0–2,800 m. South Africa to Malawi; also on Madagascar.

 Isoetes sp. A
 Similar to the above, but not matched to any known species, having smooth megaspores.
 Source. Malawi. Nyika National Park, Thazima Gate, Barrows & Burrows 6831 (K, MAL, MU, NBG, PRE).

 LOMARIOPSIDACEAE

 Elaphoglossum acrostichoides (Hook. & Grev.) Schelpe
 Lithophytic or epiphytic fern, rhizome creeping; sterile fronds simple, linear-elliptic, 30–350 x 10–36 mm, more or less glabrous; sporangia black to dark brown, covering all of frond under-surface (fertile fronds only); fertile frond with a longer stipe and smaller lamina; in forest or rock outcrops; 0–2,800 m. Southern and tropical Africa; also Madagascar. First records for the Nyika.

 Elaphoglossum aubertii (Desv.) Moore
 Terrestrial or lithophytic fern, rhizome shortly creeping; sterile fronds erect, linear to narrowly elliptic, 200–400 x 15–25 mm, stipe and both surfaces sparsely set with small brown scales, more so on the margins; fertile fronds like a spear-head, smaller than the sterile, sporangia covering the whole of the under-surface; on mossy boulders near streams in deep shade of evergreen mist forest; 1,370–2,250 m. South Africa to Cameroon and Kenya; also on Madagascar, the Comoros, and Mascarenes.
 Malawi. Nyika Plateau, Mwenemhwe Forest, Dowsett-Lemaire 784 (MAL).

 Elaphoglossum petiolatum (Sw.) Urb. subsp. salicifolium (Willd. ex Kaulf.) Alston
 Elaphoglossum petiolatum (Sw.) Urb. subsp. salicifolium (Willd. ex Kaulf.) Schelpe
 Lithophytic (rarely epiphytic) fern, rhizome shortly creeping; sterile fronds erect to arching, simple, narrowly elliptic, set with ciliate scales on both surfaces and the stipe; fertile fronds narrower and longer than the sterile, sporangia covering the whole of the lower surface; in moist riverine forest, often near waterfalls, in light shade: 1,040–2,000 m. Zimbabwe northwards throughout tropical Africa; also on Madagascar and the Indian Ocean islands.


 Elaphoglossum spatulatum (Bory) T.Moore
 Small lithophytic fern, rhizome short, horizontal; fronds clustered, 30–80 mm long, both surfaces and the stipe set with small brown entire scales; fertile lamina much smaller than the sterile, folded in half when young, lower surface covered with sporangia; on shaded rocks in or next to streams; 970–2,135 m. Both subspecies (subsp. spatulatum and subsp. ulugurense (Reimers) Schelpe) occur in Malawi; it is not known to which this collection belongs.
 Malawi. Nyika Plateau, without locality (northern end?) or collecting details (Patel 1999).

 LYCOPODIACEAE

 Huperzia dacyroides (Baker) Pic.Serm.
 Lycopodium dacyroides Baker
 Epiphyte (rarely lithophytic), robust, with a few pendulous stems to 1 m long or more; leaves linear lanceolate, to 20 x 2 mm, dark glossy green; fertile portion similar in appearance to the sterile; in moist montane forest (mist forest); 1,500–1,800 m. South Africa to Ethiopia; also on the Comoros.


 Huperzia gnidioides (L.f.) Rothm.
 Lycopodium gnidioides L.f.
 Stems erect with arching tips, or pendulous; stems to 500 mm long, dividing 4 to 5 times; leaves mid-green, glossy, to 10 x 2 mm; fertile portion apical, clearly differentiated, the sporophylls much smaller than the sterile leaves; epiphytic in montane forest or lithophytic on rocky outcrops in montane grassland; 1200–2000 m. South Africa to Malawi; also in the Indian Ocean islands and Madagascar.


 Huperzia ophioglossoides (Lam.) Rothm.
 Lycopodium ophioglossoides Lam.
 Epiphyte or lithophyte, stems pendulous or arching, branching repeatedly; leaves 10–20 mm long, narrowly lanceolate, often standing out from the stems; fertile portion different from the sterile stems, sporophylls smaller (1.5 mm long), ovate; in moist montane forest (mist forest); above 1,600 m. Sporadic throughout the highlands of tropical Africa; also on Madagascar and Mascarenes.

 Malawi. Nyika National Park, Thazima Gate, Barrows & Burrows 6812 (K, MAL, PRE, SRGH).

 No country given. Nyika Plateau, without precise locality, Dowsett-Lemaire 537.

 Huperzia verticillata (L.f.) Rothm.
 Lycopodium verticillatum L.f.
 Arching or pendulous lithophyte or epiphyte; stems branching repeatedly dichotomously, clad in fine needle-like leaves to 8 mm long; sporophylls similar to the sterile leaves; in moist forest in shade, 1,500–1,980 m. South Africa to Malawi and Cameroon; also in Madagascar, the Comoros, the Mascarenes, and S. America.

 Lycododiella cernua (L.) Pic.Serm.
 Lycododiella cernua L.
 Main stems horizontal, rooting, with main branches erect, stem-like, with numerous arching branches, each terminating in a ‘cone’ or fertile portion; leaves 3 x 3 mm; sporophylls ca 1.5 mm long; in continually moist stream banks in full sun, often over shallow shettrock near waterfalls; 800–2,000 m. Worldwide.


 Lycopodium carolinianum L. var. affine (Bory) Schelpe
 Moss-like plant, stems prostrate, rooting along their length; leaves 4–10 mm long, lanceolate; fertile stems rigidly erect, the sporophylls grouped into a terminal strobilus; in swampy ground swamp forest, 1,350–2,150 m. Tropical Africa and the Mascarene islands.

 Malawi. Nyika Plateau, Lake Kaulime, 1958, Robson & Fanshawe 634 (BM,
Elaphoglossum salicifolium
Del. Sandie Burrows

Huperzia gnidioides
Del. Sandie Burrows

Lycopodiella cernua
Del. Sandie Burrows

Lycopodium clavatum
Del. Sandie Burrows
**Marattia fraxinea** Sm. ♦

*Marattia fraxinea* Sm. ex J.F.Gmel. var. *salicifolia* (Schrad.) C.Chr.

Tree fern-like terrestrial fern, rhizome massive, with large fleshy scales; stipe with a distinct swollen base; fronds large, to 2 m long, 2-pinnate, glabrous, margins serrate; sporangia borne in elliptic synangiophyllia, splitting longitudinally, one synangium per vein; a fern of deeply shaded ravines and streams in forest 750–2,000 m. Southern and tropical Africa; also on Madagascar and the Mascarenes.

**Oleandraceae**

**Ophioglossum rubellum** Welw. ex A.Braun

Very small herb with annual leaves; leaves simple, 1–3 per plant, held ca 10° from the horizontal, petiole 1–20 mm long; lamina ovate to roundish, often with a reddish tinge; fertile spike 25–120 mm long, with 12–46 pairs of sporangia; in moist woodland, often in shallow soils over sheetrock. No quoted specimen; although this species is likely to occur on the Nyika, it still needs to be confirmed.

**Ophioglossum vulgatum** L. subsp. *africanum* Pocock ex J.E.Burrows var. *africanum*

Terrestrial herb with annual leaves; leaves erect, simple, more or less erect, petiole 30–220 mm long; lamina ovate to lanceolate, 25–90 mm long; fertile spike 65–180 mm long, with 15–32 pairs of sporangia; in montane grassland; often in shallow soils over sheetrock. No quoted specimen; although this species is likely to occur on the Nyika, it still needs to be confirmed.

**Arthropteris orientalis** (J.F.Gmel.) Posthumus ♦

Very similar to *A. monocarpa*, but with the stipe jointed in the upper half, and the frond margins lined with white dots (hydathodes); a common ground fern of miombo woodlands, fronds deciduous in winter; 800–2,150 m. Tropical Africa, Madagascar, and the Indian Ocean islands.

**Arthropteris monocarpa** (Cordem.) C.Chr.

Lithophytic or epiphytic fern with widely creeping rhizomes; stipes jointed near the base; fronds erect or arching, oblong-lanceolate, deeply 2-pinnatifid, glabrous except for sparse white hairs on the veins and costules below; sori roundish, indusiate, usually 1 per lobe; in moist forest; 1,800–2,350 m. Tropical Africa, Madagascar, and the Indian Ocean islands.

**Lycophodium clavatum** L. ♦

Lycophodium inflexum (P.Beauv.) Sw.

Lycopodium *piliferum* (P.Beauv.) Sw.

**Lycopodium inflexum** L. subsp. *xrhombus* (Cordem.) C.Chr.

Tree fern-like terrestrial fern, rhizome massive, with large fleshy scales; stipe with a distinct swollen base; fronds large, to 2 m long, 2-pinnate, glabrous, margins serrate; sporangia borne in elliptic synangiophyllia, splitting longitudinally, one synangium per vein; a fern of deeply shaded ravines and streams in forest 750–2,000 m. Southern and tropical Africa; also on Madagascar and the Mascarenes.
Marattia fraxinea
Del. Sandie Burrows

Arthropteris orientalis
Del. Sandie Burrows

Nephrolepis undulata
Del. Sandie Burrows

Oleandra distenta
Del. Sandie Burrows
**OSMUNDACEAE**

*Adiantum raddianum* Malawi. Terrestrial fern, rhizome short, lanceolate, glabrous; fronds spaced to 50 mm apart, simple, 55–350 mm long, narrowly elliptic, glabrous; sori arranged linearly, borne all over lower surface, partially evident through the scales; an epiphyte in moist montane forests; 1,200–2,350 m. Southern and tropical Africa, Madagascar, and the Indian Ocean islands.

**POLYPODIACEAE**

*Drynaria volkensii* Hieron. Rhizomes large, creeping, densely scaly; fronds dimorphic, the sterile fronds stiffly erect, papery, deeply-lobed, trapping leaves and humus; fertile fronds green arching, pinnate, pinnnae narrowly oblong-attenuate; sori small, round, set near and along the midrib of the pinnae; a large epiphyte forming masses in evergreen forest and on forest margins; 1,800–2,200 m. Widespread in tropical Africa, but confined to N. Malawi and N. Mozambique in the *Flora zambesiaca* area.

**PTERIDACEAE**

*Adiantum lunulatum* Burm.f. Terrestrial fern short with tufted fronds; fronds arching, pinnate, pinnnae alternate, fan-shaped, borne on straight wiry black stalks; sori marginal, discrete; in miombo woodlands, usually in ravines and around boulders; 600–1,500 m. Widespread throughout the tropics. This locality is probably outside the Nyika National Park boundary.

*Adiantum philippense* White 2708 (BM); Chowo Forest, 2000, Phiri 4026b (UZL). Terrestrial fern, rhizome shortly creeping; fronds crowded in tufts, with an almost circular lamina borne on a long blackish stipe, basal lobes often overlapping; sori numerous, almost continuous; on rocky river-bank in shade of riverine forest. A very rare fern on continental Africa, known only from the Madeira and the Canary Islands, while var. *Y.X.Lin is described from China. Very small annual fern to 20 mm tall; fronds 1–6, 2- to 3-pinnatifid, very

*pinnules obtriangular, 5–10 mm long, 4–12 mm wide, crenate-serrate; sori marginal, kidney-shaped; on moist earth banks in forested ravine; 2,100 m. Introduced and naturalised fern from S. America. First record for Nyika Plateau and Malawi (N.).

*Adiantum reniforme* L. var. *asarifolium* (Willd.) Cordem. Terrestrial fern, rhizome short creeping; fronds tufted, with an almost circular lamina borne on a long blackish stipe, basal lobes often overlapping; sori numerous, almost continuous; on rocky river-bank in shade of riverine forest. A very rare fern on continental Africa, known only from probably five localities (D.R.C., Kenya, Tanzania, and Malawi); also on Madagascar, Réunion, and Mauritius. The variety *reniforme* is recorded from Madeira and the Canary Islands, while var. *sinense* Y.X. Lin is described from China. Very small annual fern to 20 mm tall; fronds 1–6, 2- to 3-pinnatifid, very

*pinnules obtriangular, 5–10 mm long, 4–12 mm wide, crenate-serrate; sori marginal, kidney-shaped; on moist earth banks in forested ravine; 2,100 m. Introduced and naturalised fern from S. America. First record for Nyika Plateau and Malawi (N.).

*Anogramme leptophylla* (L.) Link Very small annual fern to 20 mm tall; fronds 1–6, 2- to 3-pinnatifid, very

*Pleopeltis macrocarpa* (Bory ex Willd.) Kauff. Rhizome widely creeping; fronds widely-spaced, simple, to 200 mm long, lanceolate, glabrous, but the lower surface set with numerous small round peltate scales; sori round, 4–8 mm diameter, in two rows on either side of the midrib, exindusiate; an epiphytic fern of moist woodlands and forests, sometimes lithophytic; not deciduous; 1,000–2,300 m. South Africa and throughout tropical Africa; also in Madagascar, India, tropical America, and Hawaii.
Plants of the Nyika Plateau

Del. Sandie Burrows

Anogramme leptophylla
Del. Sandie Burrows

Ophioglossum convexum
Del. Sandie Burrows

Aspidotis schimperi
Del. Sandie Burrows

Osmunda regalis
Del. Sandie Burrows

Drynaria volkensii
Del. Sandie Burrows
thinly textured, glabrous; sori linear along the veins; in lee of boulders in grassland; 1,600–2,500 m. Throughout the tropics worldwide. Very easily mistaken for a fern sporeling and therefore probably often overlooked. This is the first confirmed record for Malawi.

**Malawi.** Nyika National Park, Nganda Hill, 2000, Burrows & Burrows 6850 (MAL, NBG, SRGH, UZL).

**Aspidotis schimperi** (Kunze) Pic.Serm.  
Terrestrial fern, rhizome creeping; fronds tufted, stipe dark brown, lamina triangular to pentagonal, finely-dissected (deeply 4-pinnatifid), basal pinnae strongly developed basally; sori small, more or less round, borne in the sinuses of the marginal teeth; in miombo or other woodland among rocks; 900–1,800 m. Zimbabwe to Ethiopia and Nigeria.

**Malawi.** Nyika National Park, Thazima Gate, 2000, Burrows & Burrows 6820 (MAL, NBG, PRE, UZL); Juniper Forest Reserve, 2000, Burrows & Burrows 6925 (MAL, PRE, UZL).

**Zambia.** Nyika Plateau, Kaperekezi Road, 2000, Phiri 3852 (UZL).

**Cheilanthes farinosa** (Forssk.) Kaulf.  
Terrestrial fern, rhizome shortly creeping, fronds erect, with black stipes, lanceolate, 2-pinnatifid, under-surface characteristically covered with a white or yellowish powder; sori marginal, discrete; in moist sites, often in the spray of waterfalls; 1,400–3,000 m or more. Zimbabwe to Ethiopia and W. Africa; also in Arabia.

**Malawi.** Nyika Plateau, Chisanga Falls, 2000, Burrows & Burrows 6765 (MAL, NBG, UZL).

**Cheilanthes inaequalis** (Kunze) Mett. var. inaequalis  
Terrestrial fern, rhizome shortly creeping; fronds tufted, erect, hairy throughout, lanceolate to triangular-oblong, pinnate, the pinnae narrowly linear to entire, lower surface with densely matted hairs; sori marginal, discrete; around rocks in woodland and on rock outcrops in grassland; 1,440–2,220 m. South Africa northwards throughout tropical Africa.

**Source.** Korns (1979: 50).

**Malawi.** Nyika Plateau, Chelinda River Bridge, Pawke 2163 (K).

**Zambia.** Nyika Plateau, Kangampande Mountain (Chowo Forest), 1952, White 2801 (BM, K).

**Cheilanthes multifida** (Sw.) Sw. var. lacerata N.C. Anthony & Schelpe  
Terrestrial fern, rhizome shortly creeping; fronds tufted, erect, narrowly triangular, finely divided, 2- to 3-pinnate; sori marginal, separate (discrete), indusia margins lacerate or jagged; around boulder bases, in rock crevices in woodland or grassland, and on forest margins; 2,162 m. South Africa to Ethiopia and Sudan; also on Madagascar and St Helena.

**Source.** Korns (1979: 51).

**Malawi.** Nyika Plateau, Chelinda River Bridge, Pawke 2162 (K); Chelinda Bridge area, 2000, Williams 46 (PRE).

**Zambia.** Nyika Plateau, Kangampande Mountain (Chowo Forest), 1952, White 2802 (BM, K).

**Cheilanthes quadripinnata** (Forssk.) Kuhn  
*Pellaea quadripinnata* (Forssk.) Prantl  
Terrestrial fern, rhizome shortly creeping; fronds tufted, triangular to pentagonal, 3- to 5-pinnate, margins of sterile pinnules finely toothed; sori marginal, continuous; in forest margins and montane grasslands, often among rocks; 1,700–2,050 m. Widespread in the Afromontane uplands of Africa; also in Madagascar, the Comoros, and Yemen.

**Source.** Schelpe (1970: 133).

**Malawi.** Nyika Plateau, Nganda Hill, 1962, Tyer 836 (SRGH).

**Conio grammes africana** Hieron.  
Terrestrial fern, rhizome creeping; fronds spaced 10–40 mm apart, pinnate, the basal pinnae basically again pinnate, pinnae margins serrate; sori linear along the veins, exindusiate; in forest near streams, occurring with *Entandrophragma excelsum* and *Chrysophyllum gomorranum*. From Malawi to Liberia and Ethiopia. Very rare in the *Flora zambesiaca* area; the only other collections are from the Misuku Hills and Mtungwa Forest on the Viphya, Mzimba District.

**Source.** Dowsett-Lemaire (1985: 318).

**Malawi.** Nyika Plateau, Zovochipolo, Dowsett-Lemaire 286 (K).

**Pellaea pectiniformis** Baker  
Terrestrial fern, rhizome shortly creeping; fronds tufted, pinnate, the pinnae narrowly linear, arranged like a comb, hairless; sori and indusium marginal, continuous; around rocks (commonly on quartzites) in woodland or grassland; 900–1,350 m. South Africa to Angola, Gabon, D.R.C., and Tanzania; also in the Comoros.

**Source.** Schelpe (1970: 129).

**Malawi.** Nyika Plateau, Mwanda Mountain, 1963, Lemon 1034 (SRGH); without locality, 2000, Thera 3096 (MAL).

**Zambia.** Nyika Plateau, near Kaperekezi Road, 2000, Phiri 3855 (UZL).

**Pityrogramma aurantiaca** (Hieron.) C.Chr.  
Rhizome creeping; fronds closely spaced, 2-pinnate to 4-pinnatifid, hairless above, lower surface with a yellow or orange powder; sori linear, along the veins, exindusiate; a very rare terrestrial fern, forming tussocks in high-altitude marshes; 2,340 m. Malawi (Nyika and Mt. Mulanje), Tanzania, Kenya, Uganda, D.R.C., Burundi, and Rwanda. Known only from this single collection on the Nyika.

**Source.** Schelpe (1970: 107).


**Pteris catoptera** Kunze var. catoptera  
Terrestrial fern, rhizome erect or shortly creeping; fronds erect, oblong-ovate, deeply 2-pinnatifid, the basal pair of pinnae bearing 1–2 bisaccic sub-pinnae, small spines on upper surface borne along the costae and costules; sori marginal, linear, continuous; a fairly widespread terrestrial fern of shaded forest floors, not normally near water; 1,970–2,400 m. Throughout eastern Africa from South Africa to Ethiopia and Yemen, and westwards to Guinea.


**Malawi.** Nyika Plateau, without precise locality, Dowsett-Lemaire 37 (K).

**Zambia.** Nyika Plateau, Kangampande Mountain (Chowo Forest), 1952, White 2713 (BM, K).

**Pteris cretica** L.  
Terrestrial fern, rhizome shortly creeping; fronds tufted, dimorphic, pinnate, the basal pinnae pair bearing a bisaccic pinna, sterile pinnae narrowly lanceolate, serrate, fertile fronds larger, pinnae narrowly linear; sori and indusia marginal, continuous; forest margins, stream banks in forest, shaded earth banks in moist mist forest or scrub; 1,200–2,150 m. Widespread in Africa; also in the Mediterranean region, Asia, and Madagascar.

**Malawi.** Nyika Plateau, without precise locality, E. Chapman 208 (BM, MAL); Nganda Hill, 2000, Burrows & Burrows 6856 (MAL).

**Zambia.** Nyika Plateau, without precise locality, 1959, Robinson 3020 (K, SRGH).

**Pteris dentata** Forssk.  
Terrestrial fern, rhizome erect or creeping; fronds tufted, broadly ovate, pinnatifid to almost 3-pinnatifid, the basal pinnae pair bearing a bisaccic pinna, margins of sterile fronds serrate-dentate; sori and indusia marginal, linear, continuous; occasional in forest; 1,160–2,400 m. Throughout sub-Saharan Africa; also in Arabia, Greece, Madagascar, the Mascarene islands, St Helena, and Ascension. Recorded by Dowsett-Lemaire (1985) from Zovochipolo and the High Plateau (2250–2450 m).


**Malawi.** Nyika Plateau, without precise locality, Dowsett-Lemaire 209 (K).

**Pteris friesii** Hieron.  
*Pteris catoptera* Kunze var. friesii (Hieron.) Verdc.  
Terrestrial fern, rhizome erect or shortly creeping; fronds erect, oblong-ovate, deeply 2-pinnatifid, the basal pair of pinnae bearing 1–2 bisaccic sub-pinnae, small spines on upper surface borne on the costae only; sori marginal, linear, continuous; in undergrowth of forest, scrub, and swamp forest, 1,200–2,200 m. Widespread in tropical Africa. Mainly on western Nyika.
Plants of the Nyika Plateau

Loxogramme abyssinica
Del. Sandie Burrows

Pleopeltis macrocarpa
Del. Sandie Burrows

Pyrrosia stolzii
Del. Sandie Burrows

Adiantum reniforme var. asarifolium
Del. Sandie Burrows

Adiantum lunulatum

Adiantum poiretii

Cheilanthes farinosa
Del. Sandie Burrows
Coniogramme africana
Del. Sandie Burrows

Pellaea pectiniformis
Del. Sandie Burrows

Pityrogramma aurantiaca
Del. Sandie Burrows

Pteris cretica
Del. Sandie Burrows

Pteris dentata
Del. Sandie Burrows
Anemia angolensis Alston
Terrestrial fern with prostrate rhizome; fronds somewhat dimorphic, the fertile fronds taller than the sterile, sterile lamina ovate or lanceolate, 2– to 3-pinnatifid, hairy; fertile fronds as for the sterile ones, but with a pair of erect specialised pinnae, much-contracted, bearing numerous sporangia; in undergrowth of dry woodland, 600–1,525 m. Zimbabwe, Mozambique, Malawi, Zambia, Angola, and D.R.C.

Mohria lepiger A. Braun
Terrestrial fern, rhizome short, horizontal; fronds tufted, erect, 2-pinnatifid to 2-pinnate, upper surface variously hairy, lower surface variously set with pale brown ovate scales; sori marginal, exindusiate; sometimes forming colonies, in rocky areas and around boulders in high rainfall miombo woodland; 1,370–1,890 m. Zimbabwe, Zambia, Malawi, Mozambique, Tanzania, Rwanda, Burundi, and D.R.C.

Mohria marginals Savigny
Terrestrial fern, stoloniferous; rhizome short, horizontal; fronds erect, tufted, pinnate, lower surface sparsely to densely set with hairs; sori marginal, exindusiate; in montane grassland, often in rocky areas, in full sun; 1,000–2,500 m. South Africa to Angola and Kenya; also on Madagascar. The most common species of Mohria in the Nyika.

Selaginella goudotiana Spring var. abyssinica (Spring)
Bizzarri
Selaginella elyroae Hieron.
Moss-like, with more or less erect, ovate to almost triangular ‘fronds’; leaves dimorphic, lateral leaves lanceolate, 1.75–2.5 x 0.5–1.75 mm, with a few fine teeth; strobilus terminal, sporophylls in two ranks; terrestrial or on mossy rocks, on forest margins, along shady streams or among shaded boulders in grassland or moist woodland; 1,200–2,100 m. Zimbabwe to South Africa and Zambia, D.R.C., and Tanzania; also on Madagascar and Réunion. Widespread in the Afromontane regions of eastern and central Africa. Three localities only are listed in Flora zambesiaca: south-central Malawi, northern Mozambique, and S.E. Zambia.

Selaginella kraussiana (Kunze) A. Braun
Sif, rather lax moss-like plant, much-branched, often rooting at branch junctions; leaves dimorphic, lateral leaves linear-elliptic, 3–4 x 0.75–1.5 mm, margins serrate; strobilus terminal on ultimate branches, sporophylls in two ranks; terrestrial on shaded and moist forest floors, often forming mats, sometimes weedy on shaded paths; 1,200–2,500 m. South Africa to Cameroon, D.R.C., Kenya, and Tanzania.

THELYPTERIDACEAE

Thelepterus bergiana (Schleichd.) Ching
Terrestrial fern, rhizome erect to reclining; fronds tufted, 1–2 basal pinnae reduced, veins not uniting below the sinuses between the ultimate pinnae lobes; sori round, indusium very small, sparsely hairy; along streams in montane forest or scrub, or in montane grassland; 2,000–2,300 m (lower in South Africa). Widespread in the Afromontane regions of eastern and central Africa; also on Madagascar and Réunion.


Selaginella njam-njamensis Hieron.
Moss-like, prostrate plant with a short branching system; leaves all of one kind, lanceolate to triangular-ligulate, margins ciliate; strobilus apical, sporophylls in 4 ranks; a plant of rocky places; 900–910 m. Scattered in Central Africa. Three localities only are listed in Flora zambesiaca: southern Malawi, northern Mozambique, and S.E. Zambia.

Thelepterus chaseana Schelpe
Terrestrial fern, rhizome creeping, fronds tufted, twice-divided with the basal 3–5 pairs of pinnae reduced and/or deflexed, one pair of veins uniting below the sinus between the ultimate pinnae lobes; sori round, indusium with long white hairs; in Raphia grove along stream in miombo woodland; 600–1,800 m. South Africa to Angola, D.R.C., and Kenya.

Anemia angolensis  
Del. Sandie Burrows

Vittaria guineensis  
var. orientalis  
Del. Sandie Burrows

Mohria vestita  
Del. Sandie Burrows

Selaginella kraussiana  
Del. Sandie Burrows

Selaginella njam-njamensis  
Del. Sandie Burrows

Thelypteris madagascariensis  
Del. Sandie Burrows

Thelypteris bergiana  
Del. Sandie Burrows
round, indusium hairy; in forest and thicket along streams; 800–2,050 m. Widespread in Africa; also in Yemen, Madagascar, southern Asia, Australia, and New Zealand; introduced into tropical America. Apparently rare on the Nyika.

Vittaria guineensis Desv. var. orientalis Hieron. 
Epiphytic or lithophytic fern, rhizome short, creeping; leaves tufted, slender, grass-like, pendulous, to 450 mm long, dark green, hairless; sporangia embedded in two narrow grooves running the length of the frond; on Nyika an epiphyte in moist forest; 1,420–2,200 m. Zimbabwe to Ethiopia.


Malawi. Nyika Plateau, Kasanimba Road, 16 km from Chelinda, Simon, Williamson & Ball 1708 (K); road to Chelinda Bridge, 2000, Burrows & Burrows 6886 (NBG, PRE, UZL).

GYMNOSPERMS

CUPRESSACEAE

Juniperus procera Hochst. ex Endl.  
African pencil cedar; Tonga: changalumwe
Tree to 40 m tall, rather cypress-like, bark flaking in long thin strips, cones fleshy, berry-like, blue-grey, smelling of gin when crushed. Widespread in the E. African mountains, but in the Flora zambesiaca area confined to the Nyika Plateau (mainly in the Juniper Forest Reserve) and a single specimen in E. Zimbabwe (Burrows 1995). A valuable timber tree, but like many other conifers, extremely susceptible to fire.


PINACEAE

*Pinus patula* Schltdl. & Cham.  
hang-leaf pine
Tall conifer to 25 m or more, leaves composed of three slender and long needles in a small bundle, always hanging vertically; cones woody, ca 100 mm long, the hard, woody scales splitting open to release a winged seed. A native of Central America, but extremely widely cultivated as a plantation species in southern Africa. There is an extensive block of these trees surrounding the chalets at Chelinda.


PODOCARPACEAE

Afrocarpus falcata (Thunb.) C.N.Page  
Podocarpus falcatus (Thunb.) R.Br. ex Mirb.; *Podocarpus gracilior* Pilger; *Afrocarpus gracilior* (Pilger) C.N.Page
yellow-wood
Large tree to 30 m, bark thinnish, greyish, flaking in chunky or rectangular plates, leaves narrowly lanceolate, sometimes slightly falcate, widest below the middle; fruit roundish, 15–20 mm diameter, yellowish when ripe, seed hard, woody, warty; in montane forest; Cape to Ethiopia (as the species is construed in its broad sense, but probably distinct from the E. African *P. gracilior*).


Podocarpus ensiculus Melville
Tree to 30 m tall, bark grey-brown, longitudinally flaking or fibrous, leaves often pendulous, widest below the middle, 60–150 mm long, 3–8 mm wide; fruit solitary, ovoid to ellipsoid, 24–33 mm long, greenish yellow with a leathery skin; in upland rain-forest; known only from Tanzania and northern Malawi. Closely related to the South African *P. benkelia*; sometimes regarded as a synonym of that species by some authors (e.g. White et al. 2001), but maintained as distinct here (Melville 1958, Chapman & White 1970).


Podocarpus milanjianus Rendle  
yellow-wood; Tumbuka: mweye
Tree to 33 m tall, bark brown-grey, flaking in thin hanging strips, leaves linear-oblong, widest about the centre of the leaf, 60–120 mm long, 6–10 mm wide; female cones (fruit) a red fleshy receptacle bearing 1–2 blue-green berries, 9–12 mm long; sometimes dominant in montane forest; 1,300–2,300 m. Malawi (?or Zimbabwe) through Zambia to E. Africa. A valuable timber species. Closely related to the South African *P. latifolius*; sometimes regarded as a synonym of that species by some authors (e.g. White et al. 2001), but maintained as distinct here (Melville 1958, Chapman & White 1970).

Juniperus procera
Del. Sandie Burrows

Afrocarpus falcata
Del. Sandie Burrows

Pinus patula
Del. Sandie Burrows

Podocarpus milanjianus
Del. Sandie Burrows
ACANTHACEAE

ACANTHOPALPE confertiflora (Lindau) C.B.Clarke

Soft-woody shrub or small tree 3–4 m high, sometimes with stilt roots; flowers white with purple streaks; gregarious in shrub layer in moist gullies of montane rainforest and montane forest. Malawi, E. D.R.C., Burundi, Tanzania, and N.E. Zambia.


Zambia. S.W. Nyika Plateau, Chowo Forest, 1,850–2,150 m, Dowsett-Lemaire 93 (K?).

ACANTHUS leueneis De Wild.  

Acanthus montanus auct., non (Nees) Anderson

Semi-scarce, sparsely branched shrub up to 4 m high; leaves irregularly lobed, margin spiny towards the base; flowers pale mauve, rarely white; in undergrowth of montane rainforest. Malawi, D.R.C., Uganda, and Tanzania.


No country given. Nyika plateau.

BLEPHARIS grandis C.B.Clarke

Normally erect perennial herb to 1 m tall; leaves and bracts spiny; large leaf pair in whorl usually 2–3 times longer than smaller pair; flowers blue, each with a single three lobed corolla lip, set in clusters among prickly bracts; in tall grassland or forest margins. This species, from N.E. Zambia, Tanzania, Malawi, and N. Mozambique, is similar to B. buckneri Lindau, which tends to have a more westerly distribution range.


Zambia. Nyika plateau, Lawton 906 (K).

BRILLANTAIASIA kirungae Lindaud

Brillantaisia subulugurica Burkill; Brillantaisia ugleri Lindua

Large shrub or small tree up to 4 m tall; leaves large, coarsely dentate; flowers large, dark blue; near streams and in moist undergrowth inside mid-altitude and montane rainforest. An Afromontane endemic from Sudan to Zimbabwe and Mozambique.


Malawi. S.W. Nyika, Zovochipolo, Dowsett-Lemaire 258 (K?).

DICIPLITERA maculata Nees

Diciplitera ingulata C.B.Clarke

Similar to Peristrophe paniculata. Stems without prickles, glabrous; leaves 64 x 25 mm, base cuneate, petiolo 6–19 mm long; bracts of inflorescence units linear or narrowly ovate, 8.5–12.7 x 1.6–2.1 mm, not widened upwards or ovate; calyx 5 mm long, minutely hairy; corolla pale to dark mauve, rarely purple; capsule 8–11 mm long; in savanna or dry wooded grassland; 340–1,500 (1,780) m. E. Africa, Zambia, Malawi, Mozambique, Zimbabwe, Botswana, and South Africa.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

DICOTYLEDONS

ACANTHACEAE

ACANTHOPALPE confertiflora (Lindau) C.B.Clarke  

Diciplitera confertiflora Lindau

DYSCHORISTE fischeri Lindau

A spreading or erect, glandular and densely minutely hairy herb or low shrub; leaves ovate to obovate, slightly wavy-edged; flowers in rather loose, stalked cymes, mauve to greenish-purple, corolla tube usually longer than 20 mm; in savanna or dry wooded grassland; 340–1,780 m. E. Africa, Zambia, Malawi, Mozambique, Zimbabwe, Botswana, and South Africa.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

DYSCHORISTE nyassica Gilli

Source. Although no collection details were provided by Patel (1999) and the authenticity of this record could not be confirmed, the proximity of the following collection suggests that its occurrence is plausible here: Chitipa, 21 km SW of Chisenga path to Musitu forest, 1,675 m, Brummitt 12004 (PRE). Uncertainty regarding the original use of the name in the Patel list was indicated by a question mark following the specific epithet.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

DYSCHORISTE verticillaris (T.Anders. ex Oliv.) C.B.Clarke  

Calophases verticillaris T.Anders. ex Oliv.

Many-stemmed perennial, 0.7 m tall, branches glabrous except at the tips; calyx very hairy, almost woolly; flowers lilac with purple markings. Tanzania, S.E. D.R.C., S. tropical Africa, and Malawi.


Hypoestes aristata (Vahl) Soland. ex Roem. & Schult. var.  

aristata

Hypoestes verticillaris (L.f.) Roem. & Schult.; Hypoestes aristata var. macrophylla Nees

Perennial herb or subwoody shrub 1.5 m tall with appressed short soft hairs on all parts; inflorescence appearing verticillate, bracts aristate, flowers 24–36 mm long, pale mauve or pinkish purple, the three-lobed upper lip with dark markings, lip in lower position lanceolate; capsule 13.6 mm long; in savanna and forest. Widespread in southern and eastern Africa.

Source. Brummitt (1973); PRE.

Malawi. Nyika National Park, forest 3 km E. of Nganda, 1972, Brummitt & Synge 95 (K, MAL, SRGH); 8 km N.N.W. of Lake Kaulime, camp near North Rukuru River, 2,020 m, Brummitt 10828 (PRE).

Hypoestes aristata (Vahl) Soland. ex Roem. & Schult. var.  

alba K.Balkwill

Perennial herb or subwoody shrub 1.5 m tall; bracts aristate; flowers 19–24 mm long, white, the three-lobed upper lip with magenta or purplish markings; lip in lower position narrowly elliptic; capsule 10–11 mm long. Confined to the Afromontane region. As this variety was, until now, assumed restricted to southern Africa, the possibility of this name being misapplied to H. forskaæli must be kept in mind (Balkwill, pers. comm.).

Source. Brummitt (1973); PRE.

Malawi. Nyika National Park, Juniper Forest, 2000, Burrows & Burrows 6940 (MAL, PRE); Pawek 11814 (MO, UC, K, PRE, SRGH, MAL).

Hypoestes forskaæli (Vahl) R.Br.

Hypoestes verticillaris auct. plur. non (L.f.) Roem. & Schult.  

Stoloniferous herb; bracts lanceolate; flowers 14–22 mm long, white, pink or light lilac, the three-lobed upper lip with dark purple markings, lip in lower position usually narrowly trullate or ovate; capsule 8–11 mm long; occurring in a wide range of coastal to montane savanna and forest types. Widespread and common throughout most of Africa; also in Arabia.


Malawi. Nyika National Park, Kawozoa, forest E. of summit, 1972, Brummitt 113 (K, MAL, SRGH).
Acanthopale confertiflora
Del. Sandie Burrows

Acanthus uleensis
Del. Sandie Burrows

Blepharis grandis
Del. Sandie Burrows

Brillantaisia kirungae
Del. Sandie Burrows
Dicliptera maculata
Del. Sandie Burrows

Dyschoriste verticillaris
Del. Sandie Burrows

Hypoestes aristata
Del. Sandie Burrows

Isoglossa strigulosa
Del. Sandie Burrows
Isoglossa subbrobilina C.B.Clarke or aff.

Trailing herb with ascending stems and ovate-elliptic tapering leaves, flowers glandular-hairy in terminal and lateral uninterrupted spike-like racemes, bracts spoon-shaped or oblate. It is not known whether Dowsett-Lemaire's plant has been described as a separate taxon since the publication of her report and, as such, no detail was available on how it differs from the above description. Known from the Nyika Plateau and the Misuku Hills, in montane forest undergrowth.


Isoglossa strigulosa C.B.Clarke

Ascending herb, 1–1.5 m tall; corolla expanded, white with dark red-purple marks; in montane forest undergrowth. Known only from the Nyika Plateau and the Misuku Hills.

Source. Brummitt (1973); PRE.


Justicia linearisipica C.B.Clarke

Herbaceous perennial herb from a woody root; leaves sessile, 2.5 mm x 6 mm, glabrescent; floral leaves scarcely 6 mm long, narrowly oblong or linear, sepals 4, flowers ca 8 mm long. Eastern and southern tropical Africa.

Source. UZL; PRE.

Malawi. Nyika National Park, without locality, 1958, Robson 193 (PRE); without locality, 2000, Mwanyambo 518 (MAL).

No country given. 1967, Richards 22451 (UZL).

Justicia mollugo C.B.Clarke

Minute scabrous hispid annual herb; leaves oblong, up to 19 mm long; flowers axillary, sessile, clustered, corolla scarcely 5 mm long; in ephemeral habitats. Eastern tropical Africa.


Justicia nuttii C.B.Clarke

Justicia goetzii Lindau; Justicia schliebenii Mildbr.

Small, pubescent herbaceous perennial with clustered stems up to 260 mm tall; leaves 20–37 mm x 15 mm; flowers ca 12 mm long, white with a few red markings on midlobe of lower lip; common in frequently burnt inflorescence glandular, flowers trumpet-shaped subequally 5-lobed, 30–35 mm long, white to pale blue or lilac with orange markings, or yellowish with purple guide lines within. Widespread in tropical Africa.

Malawi. Nyika National Park, hill E.S.E. of Dembo Bridge, 2000, Winter 4046 (MAL, PRE, SRGH, UZL); Mpopoti, 2000, Mwanyambo 553 (MAL); 2000, Thera 3056 (MAL).

Justicia phyllostachys C.B.Clarke

Slender hairy perennial herb up to 0.6 m tall; leaves up to 100 x 41 mm, petiole up to 37 mm long; flowers in terminal spikes, floral leaves ca 16 mm long, ovate or elliptic, sepals 5, flowers 10–19 mm long, varying from mauve-pink to red purple with purple nectar guides or with white markings on midlobe of lower lip; in scrub or forest margins. D.R.C., Tanzania, Angola, Zambia, Malawi, Mozambique, and Zimbabwe.


Zambia. Nyika Plateau, near Rest House on Chisanga Falls Road, 2000, Winter 4014 (UZL).

Justicia striata (Klotzsch) Bullock

Adhatoda striata Klotzsch; Justicia melampyrum S.Moore

Very variable, slender herb of open forest and woodland, supported by surrounding shrubs and grasses; leaves mostly elliptic-oblong, short-petioled, 38–52 mm long, but lower leaves can be broadly ovate with longer petals; flowers axillary, floral leaves usually round or ovalate, flowers usually white, also pale mauve or magenta, 8.5–10(–13) mm long. Widespread throughout tropical Africa. This name may have been misapplied to J. phyllostachys C.B.Clarke (above).


Lepidagathis sparsiceps C.B.Clarke

Procumbent perennial herb with linear leaves; flowers all at base of stems, heads woolly; on sparsely vegetated, gravelly slopes. Eastern Africa.


Mellera submutica C.B.Clarke

Onus submuticus (C.B.Clarke) Gilli; Pseudobarleria lindiaua Dewevre

Perennials with linear leaves; flowers all at base of stems, heads woolly; on sparsely vegetated, gravelly slopes. Eastern Africa.


Metarungia pubinervia (T.Anders.) Baden

Anisotes pubinervus (T.Anders.) Heine; Macrorungia pubinervia (T.Anders.) C.B.Clarke

Shrub or rarely small tree similar to Anisotes myssaeus, 2–5 m high, sometimes with aerial roots; leaves short-stalked, to 200 x 80 mm; spikes axillary, one-sided, 60 mm long, hanging, often borne on bare branches below the leaves; bracts pinkish, ovate to elliptic, flat, 10–14(19) mm long, with a hyaline margin; flowers red or maroon, rarely white, 30 mm long; lower lip lobed at tip only; in undergrowth of drier forests. Ethiopia to South Africa. Baden’s (1981b) assertion (based on a single character) that Macrorungia was not closely related to Anisotes is unconvincing.


Malawi. Nyika National Park, Kaysaula Forest, cf. Dowsett-Lemaire 188 (K!).

Zambia. Nyika Plateau, Kasoma Forest, Dowsett-Lemaire 259 (K!).

Mimulopsis solmsii Schweinf.

Mimulopsis violacea Lindau; Mimulopsis sesamoides S.Moore

Ascending, scrambling shrub up to 2.5 m tall, often covered with long, red-dish hairs; leaves ovate, to 150 mm, often doubly round- or sharp-toothed; inflorescence glandular, flowers trumpet-shaped subequally 5-lobed, 30–35 mm long, white to pale blue or lilac with orange markings, or yellowish with purple guide lines within. Widespread in tropical Africa.


Monechma varians C.B.Clarke

Stems simple, 300 mm from a woody rootstock; flowers white, similar to those of Justicia; seeds solitary in each cell, and smooth (2 per cell and rough in Justicia). Endemic to the Nyika Plateau.


Peristrophe aculeata (C.B.Clarke) R.K.Bruminnt

Dickertia aculeata C.B.Clarke

Similar to P. paniculata, but perennial, and with a 17–27 mm long corolla; in woodland. Northern Malawi. This record casts further doubt onto the occurrence of P. paniculata on the Nyika Plateau. The placental type is the only consistent character for distinguishing Peristrophe from Dickertia (Balkwill 1996a, 1996b).
Justicia striata
Del. Sandie Burrows

Mellera submutica
Del. Sandie Burrows

Lepidagathis sparsiceps
Del. Sandie Burrows
Mimulopsis solmsii
Del. Sandie Burrows

Metarungia pubinervia
Del. Sandie Burrows

Monechma varians
Del. Sandie Burrows

Peristrophe aculeata
Del. Sandie Burrows
ACANTHACEAE


Malawi. Nyika Plateau, 1,220–1,830 m, 1896, Whyte s.n. (K, lecto.), 1,830–2,135 m, Whyte s.n. (K).

Peristrophe paniculata (Forssk.) Brummitt
Dianthera biculculata Retz.; Justicia biculculata (Retz.) Vahl; Peristrophe diewerei De Wild. & Durand.

Usually unbranched erect annual herb to 2 m, stems 6-ridged; leaves shortly-stalked, 60–110 x 30–40 mm; flowers magenta, 10 mm long, in a large branched panicle, paired bracts very different in size; in open bush land and dry rocky soils up to 1,500 m. Namibia to India. As the dry habitat typical for this taxon is not represented in the Nyika National Park, there is a possibility that the name is misapplied here. The situation requires investigation to assess the occurrence of P. paniculata and the identity of P. diewerei. Similar to Dicliptera maculata.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Peristrophe pumila (Lindau) Gilli

Diciplerta pumila (Lindau) Dandy ex Brenn; Peristrophe usta C.B.Clark

Climbing perennial herb up to 3 m, petiole winged; leaves arrow-shaped

Thunbergia fuscata (T.Anders. ex Lindau); Thunbergia petersiana (Lindau) O.Kuntze

Climbing or suberect, hairy pyrophyte, with stems 100 mm tall from a woody rootstock; leaves elliptic, to 40 mm long; flowers in erect spikes, bracts with dense stalked glandular hairs, petals white, mauve-tipped or magenta; in short or open and wooded grassland, usually flowering before the leaves are fully developed, soon after fire. Sudan to Zimbabwe.


Phaulopsis imbricata (Forssk.) Sweet

Raellia imbricata Forssk.; Aetheilema imbricatum (Forssk.) Spreng.; Micranthus imbricatus (Forssk.) O.Kuntze

Glandular-hairy trailing herb with ascending stems and stalked leaves; leaves of a pair usually unequal, bases asymmetrical; flowers white with a bent tube, small, in clusters with overlapping, pale, ciliate bracts; in shade or semi-shade in woodland or forest margins. Widespread in eastern and southern Africa.


Thunbergia alata Bojer ex Sims

Thunbergia fascata T.Anders. ex Lindau; Valentiniana solubila Raf.

Climbing perennial herb up to 3 m, petiole winged; leaves arrow-shaped with five veins from the base; flowers yellow or orange, with a black or deep purple throat; bush land and thicket. Widespread in eastern and W. Africa; also on Mauritius.


Malawi. Nyika National Park, Vithiniza Hill slope, 2000, Mwanyambo 576 (MAL); Jalkawe Viewpoint, 2000, Thera 3074 (MAL); North Rukuru Valley, 2000, Winter 4116 (MAL, PRE); 8 km E. of Nganda, 1972, Brummitt, Munthali & Synge 125 (K, MAL, SRGH).

Thunbergia kirkiana T.Anders.

Low semi-procumbent perennial herb; leaf bases sometimes slightly winged, giving the leaf an arrow shape; flowers large, translucent white with a yellow throat; in miombo woodland, spring-flowering. D.R.C., Tanzania, Angola, Zambia, Malawi, Mozambique, and Zimbabwe.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Thunbergia lancifolia T.Anders.

Herbaceous perennial up to 600 mm tall, with erect annual stems from a woody rootstock; leaves narrowly elliptic; flowers ca 50 mm diameter, pale to dark blue or tinged with violet, throat yellow, corolla tube slightly inflated, calyx covered with minute glistening hairs; in open grassland, or along the edge of Brachystegia woodland, spring-flowering. From Ethiopia to Zimbabwe.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Thunbergia mollis Lindau

Stem with a rusty pubescence or glabrous; leaves ovate, cordate or hastate, 60 x 36 mm, stigose on both sides, petiole rusty pubescent, 25 mm long; bracteoles 5-nerved, the middle one forming a marked keel; corolla large, purple above, tube 38 mm long; habitat unknown. Distribution range outside of Malawi is unknown.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Thunbergia petersiana Lindau

Stem climbing, with scattered hairs; leaves cordate, long acuminate, 75 x 57 mm, pilose on both sides, petiole more than 50 mm long; bracteoles 3-nerved and 3-keeled, reticulated; corolla large, violet, tube 25 mm long. As this taxon was originally known from the lower Zambezi River basin in Mozambique, presumably in a different habitat, there is some doubt as to whether the Nyika taxon is the same.


No country given. Nyika Plateau, cf. Dowsett-Lemaire 263 (K?).

Excluded species

Anisotes nyassae Baden

Found in the Karonga district of Malawi, S. Tanzania, and N.E. Zambia. Dowsett-Lemaire’s record appears to be a sight record, based on material in bud, which ‘appeared similar to A. nyassae collected in the nearby forests of the N. Viphya.’ Since she recorded the similar Metarungia puberuena as well, it seems possible that both taxa could occur on the Nyika, but since there is no specimen to confirm its existence, it is excluded here.


Blepharis buchneri Lindau

Large leaf pair in whorls more than (3–)5 times longer than smaller pair. Smaller pair rhomboid-triangular, 3–7-veined from the base, rarely pinnately veined. The correct application of this name is doubted, as B. buchneri is not recorded for Malawi in the recent revision, and as this name has often been used erroneously for what is actually B. grandis.


No country given. Verboom s.n. (UZL).

Dyschoriste albiﬂora Lindau

The authenticity of this record could not be confirmed. Known only from Tanzania.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Justicia kirkiana T.Anders.

Justicia fasciata Lindau

Slender erect annual herb; leaves narrowly lanceolate, up to 62 x 5 mm; flowers yellow, with a dark stripe on each lobe of the lower lip, bracts and calyx with long, cottony hairs. Known only from sandy savanna at low altitudes (Flora of southern Africa; PRE specimens from other localities). A doubtful record perhaps confused with J. flavia (Vahl) Vahl.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Justicia petiolaris (Nees) T.Anders. subsp. bowiei (C.B.Clarke) Immelman

Justicia mutica (C.B.Clarke) Immelman

This species is known only from the Eastern Cape Province of South Africa. Confusion with J. linearispica, a species found on Nyika Plateau and from the same section, is suspected.

Phaulopsis imbricata
Del. Sandie Burrows

Thunbergia alata
Del. Sandie Burrows

Alangium chinense
Del. Sandie Burrows
**ALANGIACEAE**

*Alangium chinense* (Lour.) Harms —

Tree 9–30 m tall, leaves simple, base asymmetric, flowers white to yellow, sweetly scented; in lowland and upland forest, next to streams; up to 2,000 m in this area. Widespread in central Africa, extending through tropical Asia to Japan and Indonesia. A very rare tree in the *Flora zambesiaca* area; in Malawi known only from two other areas (Misuku Hills and Usumara on the Viphya).


Malawi. Nyika Plateau, Kasyaula Forest, Dowsett-Lemaire 335 (FHO).

**AMARANTHACEAE**

*Ozoroa insignis* Delile —

Perennial shrublet with annual stems arising from a large woody rootstock, leaves 3-foliate, leaflets elliptic, discolorous, hairy or not, veins prominent below; flowers in a slender terminal spike, minute and enclosed in a bract. Zambia, Malawi, and Tanzania. This is the first record for the Nyika Plateau.


Malawi. Nyika Plateau, 2,180 m, 1975, Pawek 9968 (K, MAL, MO, SRGH, UC).

**ANACARDIACEAE**

*Rhus longipes* Engl. var. *longipes* —

Shrub or small tree to 8 m, or scandent, leaves 3-foliate, leaflets elliptic or obovate, hairy when young, hairless with age, veins obscure above when young, but prominent below when older; in forests, thickets and woodlands. Zimbabwe to W. Africa and Kenya.


*Rhus ochracea* Meikle var. *ochracea* —

*Rhus squamulosa* sensu White (1962), non Meikle

Suffrutex or shrub to 2 m, from a large woody rootstock, leaves 3-foliate, leaflets elliptic to obovate, leathery, sparsely to densely hairy on both sides, discolorous, yellowish green to russety below; fruit small, to 4 mm in diameter, round, shiny; in miombo woodland, in grasslands among rocks, on termite mounds. Zambia, Malawi, and Tanzania. This is the first record for the Nyika Plateau.


*Rhus pyroides* Burch. var. *pyroides* —

*Rhus vulgaris* Meikle

Shrub or tree to 9 m tall, leaves 3-foliate, leaflets ovate to obovate, apex rounded or obtuse, base tapering, lateral and tertiary nerves sunken above, prominently raised below, dark green above, paler and silvery hairy below; fruit red or brownish red, round, ca 5 cm diameter; on termite mounds and rocky hills, along stream banks, and on forest margins. South Africa to Ethiopia.


Malawi. Nyika Plateau, N. of Mpanda Summit, Lewis 104 (FHO); North Rukuru Valley, 2000, Winter 4121 (MAL).
Achyranthes aspera var. pubescens
Del. Sandie Burrows

Amaranthus hybridus subsp. cruentus
Del. Sandie Burrows

Cyathula cylindrica
Del. Sandie Burrows

Lannea edulis
Del. Sandie Burrows
Ozoroa insignis subsp. reticulata
Del. Sandie Burrows

Rhus longipes var. longipes
Del. Sandie Burrows

Annona senegalensis
Del. Sandie Burrows

Anisophylea boehmii
Del. Sandie Burrows

Annona senegalensis
Del. Sandie Burrows
ANISOPHYLLACEAE

Anisophyllea boehmii Engl.

Anisophyllea pomifera Engl. & Brehm

Tumbuka: mangondo; Tonga: mfungo; Ngoni: mahota

Small evergreen tree to 10 m, young branchlets crimson, leaves simple, ovate to broadly elliptic, leathery dark green, midrib yellowish; flowers small on long slender spikes; fruit a round to ellipsoid drupe, ca 35 x 20 mm, plum-coloured, edible; in miombo woodland on sandy or rocky soils; 600–1,600 m. Malawi, Zambia, Tanzania, and D.R.C. Fruit much relished; the roots are used in Zambia as a snakebite remedy.


Annona senegalensis Pers.

wild custard-apple; Chichewa: mpoza, mneche, ulembe; Tumbuka: mdopa, munyele, mulolo; Yao: chiuta, mponjela, mposa

Small, often spreading tree 1.5–8 m tall; leaves alternate, 60–185 x 30–115 mm, venation sunken above, prominent below; fruit single, 15–30 mm long, segmented, yellowish, edible; in various types of woodland or wooded grassland; 0–1,900 m. Widespread throughout tropical Africa.

Malawi. Nyika National Park, without locality or collector (Mill 1979).

Artabotrys monteiroae Oliv.

red hook-berry; Chichewa: kana; Yao: ntandaumbiri, ntandandumbili

Shrub or liane 1.2–6 m tall, bearing small hooks on the branches; leaves alternate, oblong to ovate, 30–140 mm long, glossy, hairless above, finely hairy below; fruit in few-fruited clusters, small, red when ripe; in evergreen forest, riverine forest, woodland, and rocky outcrops; up to 2,200 m. South Africa to Uganda and D.R.C.


Artabotrys stolzii Diels

Yao: ehisakalawe

Large woody climber to 15 m tall, very similar to A. monteiroae; in mist forest and evergreen forest: 1,500–2,100 m. Confinned to the Nyika in Malawi and S. Tanzania. Regarded as a synonym of A. monteiroae by White et al. (2001).


Friesodielsia obovata (Benth.) Verdc.

northern dwaba-berry; Chichewa: mchinga, kombe, mufulafula (fruits); Yao: makatama, mkotamu

Shrub to small tree 1–5 m tall; leaves alternate, oblong-obovate, 60–140 x 35–95 mm, finely hairy or hairless, often glaucous below; fruit a cluster of 3–6 carpels, each 1- to 4-seeded, pinkish to orange-yellow; in open woodland, thicket, and along rivers, often on granitic soils. Mainly a species of the Flora zambesiaca region.


Malawi. Nyika Plateau, Mwenembwe, 1903, McClounie 148 (K).
Afrocarum imbricatum
Del. Sandie Burrows

Agrocharis incognita
Del. Sandie Burrows

Alepidea peduncularis
Del. Sandie Burrows

Centella asiatica
Del. Sandie Burrows
Afrocarum imbricatum (Schniz) Rauschert

*Bauhinia imbricata* (Schniz) H.Wolff; *Carun imbricatum* Schniz

Herb to 1 m high; leaves glabrous, pinnate, leaflets in 16–32(40) pairs, overlapping, sharply toothed; bracts commonly trisect or pinnate above; flowers cream-coloured; in wetlands, grassland, and woodland. Zambia to Angola, C.A.R., and Tanzania. A monotopic genus endemic to highlands of the central African plateau. African relatives include *Benda*, *Oenanta*, and *Sium*.


Agrocharis incognita (Norman) Heyw. & Jury


Annual herbs (or short-lived perennial with a slender rootstock) set with bristly, tubercle-based hairs; leaves 2–3–pinnate, pinnate with broadly oblong-elliptic segments, more rarely (when tripinnate) the segments narrowly elliptic; umbels compound, involucres present beneath main umbel, petals greenish to white or creamy white; fruit with glochidiate spines, secondary ribs spinose, primary ribs pilose; in montane grassland, forest margins and clearings, or in deep shade in damp places, and as a weed of agriculture, 900–3,000 m. Tropical eastern Africa to Sudan, D.R.C., Malawi, E. Zambia, and adjacent Mozambique. The relationship between *Agrocharis* and *Daucus* is being investigated.


Agrocharis melanantha Hochst.

*Agrocharis pedunculata* (Baker f.) Heyw. & Jury; *Causcis melanantha* (Hochst.) Herr; *Causcis longispata* H.Wolff; *Causcisis stolzii* H.Wolff.; *Gynophyge tansaniensis* Gilli

Perennial pyrophytic herb with a thickened rootstock, 100 mm tall, set with bristly, tubercle-based hairs; leaves 3- to 4-pinnate into linear to linear-oblong segments, often subverticillate in appearance; umbels compound, with distinct and often long rays; involucres present beneath main umbel, petals greenish to yellowish or blackish purple; fruit with glochidiate spines, secondary ribs spinose, primary ribs pilose; in moist, short, montane grassland subject to frequent burning. Widespread in eastern Africa.

*Source.* Brummitt (1973); Patel (1999).


Alepidea peduncularis A.Rich.

*Alepidea gracila* Dümmer; *Alepidea longifolia* E.Mey. ex Dümmer; *Alepidea propinqua* Dümmer; *Alepidea suynmertoni* Dümmer

Slender to robust herb to 1.2 m tall with a basal rosette of leaves; basal leaf margins barely to conspicuously ciliate; flowers in a large panicle of condensed simple umbels, involucral bracts prominent, white; in montane grassland and open miombo woodland, South Africa to Ethiopia. The huge variation in this aggregate species is not well understood and suspiciously simplified.


Centella asiatica (L.) Urb.

*Centella bupleurfolia* (A.Rich.) Adamson; *Centella coriacea* Nannf.

Low creeping perennial herb, stems rooting at nodes; leaves reniform; margins regularly crenate all round; umbels simple, axillary, petals greenish to purplish red; fruit strongly laterally compressed; often in moist places, grassland along rivers, among rocks, forest clearings. Pantropical, extending into some subtropical regions.


*Cyclospermum leptophyllum* (Pers.) Sprague

*Apium leptophyllum* (Pers.) Bentham.

Weak, glabrous annual herb; leaves tripinnate into filiform segments; petals minute, white; fruit almost round, laterally compressed, 1.25–1.75 mm long, with strongly protuberant, broad, pale primary ribs; a weed of cultivated and disturbed ground, sometimes in damp places, occasionally even in very shallow water. Probably Central American in origin, now widespread as a weed in the tropical regions of the world.


Diplolophium buchananii (Benth. ex Oliv.) Norman

*Phystoschia buchananii* Benth. ex. Oliv.

A very robust perennial herb 1–2 m high, often glaucous, sometimes sub shrubby; leaf sheaths well-developed, leaf segments elliptic to suborbund; involucres and involucel very conspicuous, petals greenish white to creamy yellow; fruit strongly dorsally compressed, densely bristly pubescent; in moist places in rocky montane grassland and in *Brachystegia* woodland. Malawi and N. Mozambique.


Frommia ceratophylloides H.Wolff

Perennial herb to 1 m tall; basal leaves forming a rosette above a scaly or fibrous collar formed by the decaying sheaths of previous years’ leaves; leaves pinnate, long and slender with each pinna very finely divided into very thin segments; flowers in much-branched inflorescences, petals yellow; fruit ovoid, 2–3 mm long, smooth and black, similar to that of *Pimpinella*; in thin soils associated with rock outcrops in grassland. A monotopic genus endemic to N.E. Zambia, N. Malawi, and S.W. Tanzania.


Heracleum abyssinicum (Boiss.) Norman


Perennial or biennial herb to 1 m tall, stems solid, terete or ridged, often purplish at base, from woody or somewhat fleshy rootstock; leaves simply pinnate, to 300 x 70 mm; leaflets ovate, to 2–3 mm long, smooth and black, similar to that of *Pimpinella*; in thin soils associated with rock outcrops in grassland. From Ethiopia to Malawi.


Heteromorpha arborescens (Spreng.) Cham. & Schldtl. var. abyssinica (A.Rich.) H.Wolff


Small tree 4–12 m tall, bark peeling (bark-like) in transverse bands to expose smooth, bronze underbark between consecutive persistent encircling leaf scars; leaves shortly and softly pilose usually only on midrib above; umbel rays ca 25 mm long, flowers greenish yellow; fruit halves hetero-

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62 Plants of the Nyika Plateau

Cyclospermum leptophyllum
Del. Sandie Burrows

Diplolophium buchananii
Del. Sandie Burrows

Heracleum abyssinicum
Del. Sandie Burrows

Frommia ceratophyloides
Del. Sandie Burrows
morphic, one with four ribs (two conspicuous); in montane and riverine woodland, forest margins, and in secondary growth. South Africa (Cape) to Ethiopia and Yemen; also in Angola.

**Source.** Brummitt (1973); Winter & Van Wyk (1996).


Zambian Rest House, 2000, Winter 4016 (PRE, UZL).

**Heteromorpha involucrata** Comrath

Suffrutex or woody shrub to 1.8 m tall; leaves short-petiolate and trifoliolate, with broad-based hairs predominantly on nerves below; terminal umbel often much larger than later umbels, rays up to 100 mm; petals cream-coloured to greenish yellow; in montane grassland, also open miombo or Protea woodland, particularly toward the plateau margins, 1,800–2,600 m. S. Tanzania to northern South Africa.

**Malawi.** Nyika National Park, near Thazima Gate, 2000, Burrows sub Winter 4051 (MAL, SRGH, PRE, UZL); Vitinthiza Hill slope, 2000, Salubeni & Mwanyambo 6811 (MAL); Lake Kalumile, 2000, Willis & Luhanga 106 (MAL).

Nyika Plateau, N. of Zambian Rest House, ca 1 km E. of Sonkwe stream, 2000, Winter 4018 (MAL, SRGH, PRE, UZL, LMA, UNIN, DSM).

**Heteromorpha kassneri** H.Wolff

Slender virgate perennial herb to 3 m tall, characteristically overtopping the surrounding vegetation; stems frequently bowed over with the weight of the fruiting umbels; leaves mostly confined to near base of stem, 2-pinnate (ternate-pinnate) with linear leaflets, leaflets with two veins parallel to the midvein; flowers pale yellowish cream, on long, thin, drooping pedicels; fruit strongly laterally compressed; among grass in wet to somewhat damp places. Widespread in tropical Africa. It may be worth considering *Lefebvrea microcarpa* as a subspecies of *L. grantii*. It is identical in all respects, but with smaller fruit up to 8 mm long, leaves very narrowly ovate to linear and a diffuse inflorescence, and seems to occupy a drier and warmer habitat at lower altitudes (1,250–1,750 m) in Zambia, Malawi, and southern Tanzania.

**Source.** Cannon (1978); Patel (1999).

Nyika Plateau, 1896, Whyte s.n. (B, holo.; BM, photo).

**Peucedanum articulatum** C.C.Towns.

Perennial herb 0.5–0.65 m tall; leaves with hollow petioles and pronounced sheaths, ultimate leaf divisions filiform to narrowly linear; flowers white; fruit dorsally compressed with lateral wings, stylopodium exceeding the wings; in moist grassland, presumably temporarily waterlogged. Endemic to the Nyika Plateau.

**Source.** Townsend (1987).

Nyika National Park, Chosi Hill, 2000, Winter 3988 (MAL, SRGH, PRE, UZL, LMA); 2000, Kasakula 199 (MAL, LMA, SRGH); 8 km E. of Chelinda on Kasaramba Road, 2,303 m, Pawek 11203 (K, holo.; UC, MO, SRGH, MAL, PRE, iso.); above Chelinda Bridge, 2,409 m, Droup 308 (K, RNG).

Zambia. Nyika Plateau, Chowo Rock, ca 2,195 m, Droup 314 (K, RNG).

**Peucedanum calessiensis** Norman

Erect perennial herb with stout, gnarled, woody rootstock, 0.9–2 m tall, stems pithy, angular, and sulcate-sтрат; lower leaves 190–700 x 80–180 mm, lower leaf segments broadly linear to narrowly oblone, upper leaves with the leaflets (especially the terminal) long and narrow, regularly sharply serrate, somewhat scabrid on midrib below, margins glabrous flowering petals yellow to yellow-green; fruit dorsally compressed with lateral wings, obovate, shallowly truncate or notched at the base, the 2 vittae on the commissural face somewhat concealed by overlying tissue, 1,500–1,700 m. S. Tanzania, D.R.C., E. Zambia, Zimbabwe, Malawi, and Mozambique. Can be confused with *P. nyassicum*, as well as *Lefebvrea longipedicellata*.

**Source.** Mill (1979).

Nyika Plateau, Richards 10402 (K, SRGH); N. of Zambian Rest House, ca 1 km E. of Sonkwe stream, 2000, Winter 4021 (MAL, PRE).

**Peucedanum eylesii** Norman

Erect perennial herb with stout, gnarled, woody rootstock, 0.9–2 m tall, stems pithy, angular, and sulcate-sтрат; lower leaves 190–700 x 80–180 mm, lower leaf segments broadly linear to narrowly oblone, upper leaves with the leaflets (especially the terminal) long and narrow, regularly sharply serrate, somewhat scabrid on midrib below, margins glabrous flowering petals yellow to yellow-green; fruit dorsally compressed with lateral wings, obovate, shallowly truncate or notched at the base, the 2 vittae on the commissural face somewhat concealed by overlying tissue, 1,500–1,700 m. S. Tanzania, D.R.C., E. Zambia, Zimbabwe, Malawi, and Mozambique. Can be confused with *P. nyassicum*, as well as *Lefebvrea longipedicellata*.

**Source.** Mill (1979).

Zambia. Nyika Plateau, Richards 10402 (K, SRGH); N. of Zambian Rest House, ca 1 km E. of Sonkwe stream, 2000, Winter 4021 (MAL, PRE).

**Lefebvrea abyssinica** A.Rich.

*Lefebvrea stubbmannii* Engl.; *Peucedanum lefebvria* Drude

Slender virgate perennial herb to 3 m tall, characteristically overtopping the surrounding vegetation; stems frequently bowed over with the weight of the fruiting umbels; leaves mostly confined to near base of stem, 2-pinnate (ternate-pinnate) with linear leaflets, leaflets with two veins parallel to the midvein; flowers pale yellowish cream, on long, thin, drooping pedicels; fruit strongly laterally compressed; among grass in wet to somewhat damp situations at edges of lakes, swamps, and marshes, as well as disturbed places. Widespread in tropical Africa. *H. stilborthioides* Lam. is expected to occur here, and the two species may have been confused previously.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

**Lefebvrea cylindrica** var. *granitii* (Brake) Engler

*Peucedanum eylesii* var. *granitii* Brake

Erect perennial herb similar to *P. eylesii*, 0.9–3 m tall, stem fistular, angular, and sulcate-sтрат; lower leaves 190–700 x 80–180 mm, lower leaf segments broadly linear to narrowly oblone, upper leaves with the leaflets (especially the terminal) long and narrow, regularly sharply serrate, somewhat scabrid on midrib below, margins glabrous flowering petals yellow to yellow-green; fruit dorsally compressed with lateral wings, obovate, shallowly truncate or notched at the base, the 2 vittae on the commissural face somewhat concealed by overlying tissue, 1,500–1,700 m. S. Tanzania, D.R.C., E. Zambia, Zimbabwe, Malawi, and Mozambique. Can be confused with *P. nyassicum*, as well as *Lefebvrea longipedicellata*.

**Source.** Mill (1979).

Zambia. Nyika Plateau, Richards 10402 (K, SRGH); N. of Zambian Rest House, ca 1 km E. of Sonkwe stream, 2000, Winter 4021 (MAL, PRE).

**Peucedanum linderi** Norman

Erect perennial herb with stout, gnarled, woody rootstock, 0.9–2 m tall, stems pithy, angular, and sulcate-sтрат; lower leaves 190–700 x 80–180 mm, lower leaf segments broadly linear to narrowly oblone, upper leaves with the leaflets (especially the terminal) long and narrow, regularly sharply serrate, somewhat scabrid on midrib below, margins glabrous flowering petals yellow to yellow-green; fruit dorsally compressed with lateral wings, obovate, shallowly truncate or notched at the base, the 2 vittae on the commissural face somewhat concealed by overlying tissue, 1,500–1,700 m. S. Tanzania, D.R.C., E. Zambia, Zimbabwe, Malawi, and Mozambique. Can be confused with *P. nyassicum*, as well as *Lefebvrea longipedicellata*.

**Source.** Mill (1979).


**Lefebvrea grantii** (Hiern) Droop

*Peucedanum abderaricum* Chiov.

Erect perennial herb similar to *P. eylesii*, 0.9–3 m tall, stem fistular, angular, and sulcate-sтрат; lower leaves 190–700 x 80–180 mm, lower leaf segments broadly linear to narrowly oblone, upper leaves with the leaflets (especially the terminal) long and narrow, regularly sharply serrate, somewhat scabrid on midrib below, margins glabrous flowering petals yellow to yellow-green; fruit dorsally compressed with lateral wings, obovate, shallowly truncate or notched at the base, the 2 vittae on the commissural face somewhat concealed by overlying tissue, 1,500–1,700 m. S. Tanzania, D.R.C., E. Zambia, Zimbabwe, Malawi, and Mozambique. Can be confused with *P. nyassicum*, as well as *Lefebvrea longipedicellata*.

**Source.** Cannon (1978); Mill (1979).

Malawi. Nyika National Park, 5 km S. of Chelinda, De Kruif 1325 (PRE, LMA, SRGH, holo.); Mpomi Hill, 2000, Salubeni & Mwanyambo 6768 (MAL); Mwanda, between road and ridge, 2000, Winter 4178 (MAL).
Hydrocotyle mannii
Del. Sandie Burrows

Heteromorpha arborescens
Del. Victoria Goaman

Lefebvrea abyssinica
Del. Sandie Burrows

Peucedanum articulatum
Del. Sandie Burrows
Ubudinandi, 2000, Salubeni & Mwanyambo 6816 (MAL); Chisanga Falls Malawi.

footpath, 2000, Winter 4012 (MAL, PRE, LULI; Che Belinda Stream, 7.500’, Pawek 7829 (UC, SRGH, PRE), wetland along stream, Pawek 10295 (UC, SRGH, PRE, K, MO, MAL).

Physotrichia heracleoides H. Wolff Perennial with a tough taproot, ca 0.3–0.9 m tall; lobes of lower leaves not separated into pinnate or, if so, then the pinnate not deciduous along the leaf-rachis; involucre and involucel very conspicuous, petals creamy-greenish yellow, calyx teeth well-defined, ovary and young fruit not visibly ribbed, terete; fruit strongly dorsally compressed, with vesicular papillae; in rough, rather dry grassland, 1,500–2,100 m. From Burundi, S.W. Tanzania, and southern D.R.C. to Zambia and the Nyika Plateau.

Physotrichia muriculata (Hiern) Droop & C.C.Towns. Perennial herb 0.5–1.5 m tall, with a woody or fleshy taproot, stems ribbed or grooved, muricate; leaves pinnate, with the pinnae broadly deciduous along the leaf-rachis, roughly hairy, to 250 x 180 mm; umbels compound, to 100 mm across; involucr and involucel very conspicuous, flow- ers yellowish, sometimes flushed purplish, calyx teeth well-defined; ovary and young fruit deeply succulate and ribbed; fruit strongly dorsally compressed, with a papillate-muriculate surface; in montane grassland or wooded grassland up to 2,100 m. From Angola, through northern Zambia and southern D.R.C., to the Nyika Plateau and S. and W. Tanzania.

Pimpinella buchananii H.Wolff subsp. buchananii var. buchananii Pimpinella stolzii H.Wolff; Pimpinella buchananii var. triradiata Norman; Pimpinella zerzae Gilli Slender to robust biennial or perennial herb, 0.35–1.5 m high; leaves vari- ably pinnate, only rarely simple or trifoliate; inflorescence much branched and rebranched, umbel rays (2)4–8(12); involucre and involucels absent, bracts (from first flowering branch and upward) with reduced lamina shorter than firm sheath; flowers white to creamy, pedicels glabrous or with a few scattered hairs, involucels absent; fruit with dense silky, bristly or vesicular hairs, not much longer than broad; in Brachystegia–Uapaca woodland and in shallow boggies soil overlying laterite by streams, up to 1,500 m. Angola, Zambia, Zimbabwe, Malawi, S. and W. Tanzania, and N. Mozambique.

Pimpinella caffra (Eckl. & Zeyh.) D.Dietr. subsp. conopodioides C.C.Towns. Pimpinella stedens sensu Cannon, non (Eckl. & Zeyh.) D.Dietr., pro parte Slender herb 0.2–0.8 m tall, rhizome with thick side roots; leaves long-petiolate, lowermost leaf may be undivided, orbicular and deeply dentate, leaflets with long petiolules; inflorescence simple or with few branches; umbels 1–3 umbels, rays many, petals creamy white; in wetlands along streams in grassland. This species is apparently endemic to wetlands on the Nyika Plateau. Its relationship needs to be clarified with plants from Zimbabwe.
Physotrichia heracleoides
Del. Sandie Burrows

Pimpinella ledermannii
Del. Christine Grey-Wilson

Sanicula elata
Del. Sandie Burrows

Steganotaenia araliacea
Del. Sandie Burrows
to South Africa in the *P. caffra/istadensis* complex that occur in wetland habitats, for example, *P. hydrophila* H.Wolff, particularly concerning the rhizomatous habit and long petioles.

**Source.** Cannon (1978).

**Malawi.** Nyika Mountains, 1932, Sanderson 58 (BM, holo.); Nyika National Park, wetland at Zovorchipolo forest margin, 2000, Winter 4136 (MAL); tributary E. of Dembo Bridge, 2000, Winter 4041 (MAL, PRE, SRGH).

**Sanicula elata** D.Don

*Sanicula europaea* L. var. *elata* (D.Don) Boiss.; *Sanicula europaea* L. var. *partita* (Kuntze) Hiroe

Stoloniferous herb up to 0.8 m; leaves long-stalked, rosetted, palmate, 40–80 mm wide, leaf segments 3–7, margin serrate with a tooth arista or mucro 1 mm long; umbels apparently simple; fruit 3–4 mm long, covered with hooked bristles; in evergreen forest. Widespread in Old World tropics and subtropics.

**Source.** Brummitt (1973).

**Malawi.** Nyika National Park, 8 km E. of Nganda, 1972, Synge 442 (K, MAL); Nyika Road, km 56.3, Chapman 181 (BM).

**Zambia.** Nyika Plateau, upper slopes of Kangampande (Chowo Rocks), White 2760 (K).

**Excluded species**

**Heteromorpha arborescens** (Spreng.) Cham. & Schltdl. var. *montana* P.J.D. Winter

The type locality of this variety is from Viphya (Vernal Pool Dome); also collected at Chikangawa (Viphya) and therefore probably also occurs on the Nyika although no specimens thus determined have been found there to date. Expected on the eastern slopes, in steep, open, precipitous habitats.


**Lefebvrea longipedicellata** Engl.

*Peucedanum longipedicellatum* (Engl.) Drude; *Lefebvrea brevipes* H.Wolff; *Lefebvrea nageleana* H.Wolff

Distributed from tropical E. Africa to D.R.C., Zambia, Angola, southern Malawi, and Mozambique. The gap in the known distribution range seems to reflect missing data or misidentification of Nyika specimens rather than a true disjunction, as the Nyika National Park includes habitats which seem suitable for occupation by this species, and it is recorded from as close as Chisenga (Misuku Hills). It seems as if there may be difficulty distinguishing it from *Peucedanum eylesii* when mature fruit is not available, as both have more or less triplinerved pinnae. The number and length of pedicels may prove useful to distinguish them. Only a thorough comparison of specimens of both taxa can confirm this. If these species can be recognised in the vegetative state, this needs to be reflected in the literature, at least in the form of a diagnosis.

**Species that are still expected, but have apparently not yet been collected on the Nyika Plateau**

**Acokanthera laevigata** Kupicha

Shrub or tree to 12 m tall, all parts with milky sap, leaves leathery, flowers in axillary clusters, white; in mid-stratum of montane forest; in *Juniperus* forest, on Nhlonjera Hill, and at Mbuiziandi. N. Malawi and Tanzania.

**Source.** *Flora zambesiaca* 7(2): 406 (1985); White et al. (2001).

**Malawi.** Nyika National Park, in the Juniper Forest, 2,160 m, 1976, Pawek 11818 (K).

**Anclyobotrys petersona** (Klotzsch) Pierre

*Landolphia petersona* (Klotzsch) Dyer

Scandent shrub or woody climber with a milky latex; leaves opposite, 40–110 mm long; flowers white or cream-white, corolla tube 6–14 mm long, lobes 11–24 mm long; on rocky hillside in mixed woodland at low altitudes. South Africa to Tanzania and Kenya; also on Madagascar. Probably not a constituent of the Plateau flora.


**Asclepias amabilis** N.E.Br.

*Gomphocarpus amabilis* (N.E.Br.) Bullock

Slender erect single-stemmed tuberous herb with white latex; flowers in few-flowered umbels; in damp peaty soil in montane grassland; 2,250 m. Malawi, Zambia, and Tanzania.

**Malawi.** Nyika Plateau, Lake Kaulime, 2,250 m, 1959, Richards 42 (K).

**Asclepias pygmaea** N.E.Br.

*Trachycalymma pygmaea* sensu Bullock, in part

Slender erect tuberous herb with white latex; leaves linear; flowers in white or purplish umbels; in burnt montane grassland; 2,200–2,500 m. Malawi and S. Tanzania.

**Source.** Goyder (2001).

**Malawi.** Nyika Plateau, Chelinda CDC Camp, 2,200 m, 1958, Robson & Angus 424 (K).

**Asclepias randii** S.Moore

Ascending or erect tuberous herb with white latex, linear leaves and erect
Aspidoglossum breve
Del. Sandie Burrows

Carvalhoa campanulata
Del. Sandie Burrows

Ceropegia schliebenii
Del. Sandie Burrows

Cryptolepis oblongifolia
Del. Sandie Burrows
stellite flowers; in burnt montane grassland; 2,200–2,500 m. Also in Angola, Zambia, Zimbabwe, Mozambique, and southern Tanzania.

**Malawi.** Nyika Plateau, top of ridge off road to Chelinda, 7,500’, 1967, Richards 2253 (K).

**Asclepias sp.** [= Richards 57 [K]]

Ascending or erect tuberous herb with white latex, oblong leaves and erect stellate flowers; in burnt montane grassland; 200–2,250 m. Also found in southern Tanzania and the Mbala region of northern Zambia.

**Malawi.** Nyika Plateau, near Chelinda CDC Camp, 2,200 m, 1958, Robson & Angus 373 (K).

**Asclepias sp.** [= Richards 6689 [K]]

Ascending or erect tuberous herb with white latex, linear-lanceolate leaves and dull green or pinkish flowers; in burnt montane grassland; 2,200–2,500 m. Also in S. Tanzania on the Mbeya, Kitulo, and Poroto mountains.

**Malawi.** Nyika Plateau, 30 km along road to Kasaramba Viewpoint, 1966, Pawek 745 (MAL).

**Aspidoglossum angustissimum** (K.Schum.) Bullock

*Aspidoglossum sebetyi* [N.E.Br.; Bullock; *Schizoglossum angustissimum* K.Schum.; *Schizoglossum elatum* K.Schum.; *Schizoglossum ledermannii* Schltr.; *Schizoglossum sebetyi* N.E.Br.; *Schizoglossum zernyi* Markgr.] Slender erect single-stemmed tuberous herb to 1.5 m with white latex; clusters of brownish pubescent flowers; in montane grassland with *Protea*; 2,000 m. Widespread in central and eastern parts of tropical Africa.

**Source.** Patel (1999); synonymy from Kupicha (1994).

**Malawi.** Nyika Plateau, N.E. of Nganda, Patel, Ludlow & David 3116 (K, MAL).

**Aspidoglossum breve** Kupicha

Slender erect single-stemmed tuberous herb to 300 mm tall with white latex and clusters of brownish flowers; in montane grassland; 2,000–2,600 m. Restricted to the Nyika Plateau of northern Malawi and the Kitulo Plateau in southern Tanzania.

**Source.** Kupicha (1994).

**Carvalhoa campanulata** K.Schum.

*Carvalhoa macrophylla* K.Schum.

Shrub or small tree to 5 m tall, leaves opposite, thin, with milky latex; flowers in loose heads on a long stalk from leaf axils, cream to pale yellow with red streaks in throat; fruit of paired dehiscing carpels; in understorey of tropical forest; 1,700–2,250 m. Widespread in eastern and southern Africa from Sudan to South Africa and Namibia.

**Source.** Kupicha (1994).

**Malawi.** Nyika Plateau, 30 km along road to Kasaramba Viewpoint, 1966, Pawek 745 (MAL).

**Ceropegia claviloba** Werderm.

Slender twiner to 1.5 m from a globose tuber, latex clear, flowers tubular with lobes united at tip, small, white with black markings; in evergreen woodland; 900–1,500 m. Also in Tanzania, Mozambique, Zambia, Zimbabwe, and Malawi.

**Malawi.** Nyika Plateau, Chelinda Bridge, Brummitt, Polhill & Banda 16148 (K, MAL); 6.2 km from Lake Kaulume on Zungwara Road, 2000, Burrows & Burrows 6880 (Bullfelskloof Herbarium).

**Ceropegia sp.** [= Goyder, Paton & Tawakali 3579]

Slender erect herb with clear latex and a globose tuber, flower with narrow cylindrical tube and united lobes, yellowish with red streaks; in shallow soil over rock slabs; 1,750 m. Known only from the Nyika.

**Malawi.** Nyika Plateau, escarpment below Jalawe Viewpoint, 1992, Goyder, Paton & Tawakali 3579 (BR, K, MAL, PRE).

**Cynanchum praecox** Schltr. ex S.Moore

*Cynanchum pygmaeum* Schltr.

Plant leafless at time of flowering, just an umbel of brownish yellow flowers; in burnt montane grassland; 2,000–2,300 m. Distribution scattered irregularly over W. and E. tropical Africa.

**Source.** Liede (1996); Brummitt (1973).

**Malawi.** Nyika National Park, Nganda, 1972, Synge 370 (K, MAL).

**Cynanchum rungweense** Bullock

Vine climbing to 12 m with white latex; leaves heart-shaped, glaucous below with red veins; on forest fringes; 2,000–2,400 m. Northern Malawi, Zambia, and southern Tanzania.

**Source.** White et al. (2001).

**Malawi.** Nyika Plateau, central plateau, Dowsett-Lemaire 236 (K).

**Glossostelma carsonii** (N.E.Br.) Bullock


Erect single-stemmed tuberous herb with white latex, linear fleshy leaves and large, yellow-green flowers frequently marked with purple; in montane grassland and *Brachystegia* woodland; 1,700–2,250 m. From Rwanda to Angola and Mozambique.

**Source.** Goyder (1995); Mill (1979).

**Malawi.** Nyika Plateau, 5 km S.W. of Rest House, 2,150 m, 1958, Robson & Angus 2068 (K).

**Zambia.** Nyika Plateau, 2 km S.W. of Chowo Forest, 1992, Goyder, Paton & Tawakali 3538 (K, NDO).

**Glossostelma nyikense** Goyder

Low single-stemmed tuberous herb with white latex, linear fleshy leaves and small, yellow flowers; burnt montane grassland; 2,100–2,250 m. Endemic to the Nyika Plateau—known from just 6 collections.

**Source.** Goyder (1995).

**Malawi.** Nyika Plateau, near Chelinda CDC Camp, 2,200 m, 1958, Robson & Angus 452 (K, LISC, PRE, SRGH).**

**Zambia.** Nyika Plateau, Williamson 1009 (SRGH).

**Gomphocarpus praticola** (S.Moore) Goyder & Nicholas

*Asclepias friesii* Schltr.; *Asclepias katangensis* S.Moore; *Asclepias moorei* De Wild.; *Asclepias praticola* S.Moore

Stout herb with 1–3 stems, with white latex, fleshy glaucous leaves and large, green and purple flowers; in *Brachystegia or Uapaca* woodland; 1,700–2,000 m. Northern Malawi and southern Tanzania to Angola.

**Source.** Goyder & Nicholas (2001).

**Malawi.** Nyika Plateau, track to Rukuru River Falls, 1,800 m, 1959, Richards 10529 (K).
Cynanchum rungweense
Del. Sandie Burrows

Glossostelma carsonii
Del. Sandie Burrows

Gomphocarpus swynnertonii
Del. Sandie Burrows

Landolphia buchananii
Del. Sandie Burrows
Margaretta rosea subsp. bidens
Del. Sandie Burrows

Pachycarpus lineolatus
Del. Sandie Burrows

Pentarrhinum abyssinicum subsp. angolense
Del. Sandie Burrows

Periploca linearifolia
Del. Sandie Burrows
Gomphocarpus swynnerontii (S.Moore) Goyder & Nicholas

Asclepias nuykana Schltr.; Asclepias swynnerontii S.Moore

Multi-stemmed herb with white latex, glaucous leaves, and small, greenish yellow flowers; in burnt montane grassland; 2,000–2,250 m. Southern Tanzania, Malawi, Mozambique, and Zambia westwards to Angola.


Landolphia buchananii (Hall. f.) Stapf

Large liane up to 25 m, often with tendrils, leaves opposite, all parts with milky sap, flowers white, in terminal clusters; fruit round, to 100 mm in diameter; in montane evergreen and riverine forest. Zimbabwe to D.R.C. and Tanzania. Fruit much loved by monkeys; stems used for making roofs of houses.


Margaretta rosea Oliv. subsp. bidens Bullock


Erect tuberous herb with white latex and flowers with a petaloid corona; in montane grassland and Chilandzera Forest. Malawi.


Malawi. Nyika Plateau, Mwenemwende, 1903, McClounie 63 (K).

Pachycarpus goetzii (K.Schum.) Bullock

Schizoglossum goetzii K.Schum.; Schizoglossum simulans N.E.Br.

Robust erect tuberous herb with white latex, lanceolate leaves, and nodding white or cream flowers; in Brachystegia–Uapaca woodland; 1,500–2,000 m. Also known from Kenya, Tanzania, the Shaba region of D.R.C., Zambia, N.W. Zambia, and Nigeria.


Malawi. Nyika Plateau, 15 km N. of M1, 1977, Pawek 12420 (K).

Pachycarpus lineolatus (Decne.) Bullock

Asclepias broumana S.Moore; Asclepias conspica N.E.Br.; Asclepias infllexa S.Moore; Asclepias schweinfurthii N.E.Br.; Gomphocarpus lineolatus Decne.; Pachycarpus mildbraedii Bullock; Pachycarpus schweinfurthii (N.E.Br.) Bullock

Robust erect tuberous herb with white latex, broad leaves, and nodding white or pink flowers; in Brachystegia or Uapaca woodland; 1,600–1,800 m. Widespread in tropical Africa.


Pachycarpus spurius (N.E.Br.) Bullock


Robust erect tuberous herb to ca 1 m with white latex, broad leaves, and nodding cream or pink flowers; in montane grassland or on open disturbed woodland; 1,500–2,000 m. Also recorded from southern Tanzania and the Shaba plateaux of D.R.C.


Pentarrhinum abyssinicum Decne. subsp. angolense (N.E.Br.) Liede & Nicholas

Pentarrhinum abyssinicum Decne. var. angolense N.E.Br.

Twiner with heart-shaped leaves; climbing over vegetation at forest margins; 1,700–2,000 m. Scattered distribution from Cameroon, Uganda, and Kenya to Namibia, Zambia, and Tanzania.


Periploca linearifolia Quart.-Dill. & A.Rich.

Periploca linearis Hochst.

Woody twiner with white latex, linear leaves, and bearded white flowers; scrambling over margins of wet forest; 1,900–2,400 m. Widespread on E. African mountains from Ethiopia to Malawi.


Malawi. Nyika National Park, 8 km E. of Nganda, 1972, Brummitt, Munthali & Snyge 147 (K, MAL).


Raphionacme longituba E.A.Bruce

Tuberous plant with more or less decumbent stems, latex milky; leaves opposite; fruit a pair of comparatively large horn-like pods; geophyte in shallow soils overlying sheetrock in montane grassland. Zimbabwe, Zambia, Malawi, and Tanzania.


Rauvolfia caffra Sonder

Briefly deciduous tree to 30 m tall, leaves clustered towards branch ends, flowers white or yellowish in stalked clusters, fruit round or lobed, red when ripe; in rainforest and riverine forest. Widespread throughout tropical Africa.


Rauvolfia mannii Stapf

Rauvolfia rosea K.Schum.

Understorey shrub or small tree to 4 m tall; leaves in whorls of 3–6, flowers white or yellowish in stalked clusters, fruit of 1 or 2 ovoid or obovoid carpels, red when ripe; in wet situations in rainforest. From the Viphya Mountains of Malawi northwards throughout tropical Africa.


Riocreuxia chrysochroma (Huber) A.R.Sm.

Ceropegia chrysochroma Huber

Herbaceous vine with clear latex and heart-shaped leaves; flowers orange within, lobes not united at tips; in scrub or forest patches; 2,000–2,400 m. Known only from the Nyika Plateau and the adjacent Kitulo and Kyangere ranges in southern Tanzania.

Source. White et al. (2000).


Riocreuxia profusa N.E.Br.

Ceropegia burchellii (K.Schum.) Huber subsp. profusa (N.E.Br.) Huber; Riocreuxia torulosa Schltr.

Herbaceous vine with clear latex and heart-shaped leaves, flowers pale orange or yellow, tubular, with slender lobes united at tips; on margins of montane forest; 1,900–2,400 m. Tanzania, Malawi, Zambia, and Angola.


Zambia. Nyika Plateau, forest patch near Rest House, Dowsett-Lemaire 97 (K).

Secamone alpina Schult.

Periploca secamone L.; Secamone thunbergii E.Mey.

Slender woody twiner with white latex, leathery leaves, and minute velvety white flowers; on forest margins; 2,000–2,400 m. Widespread over E. African mountains and coastal forests in South Africa.


Malawi. Nyika National Park, without locality or collector (Mill 1979).


Stathmostelma fornicatum (N.E.Br.) Bullock subsp. fornicatum

Asclepias fornicata N.E.Br.

Erect single-stemmed tuberous herb with white latex, linear leaves, and green or yellow flowers; in seasonally waterlogged grassland; 2,400 m. Found at lower altitude elsewhere in Malawi, Zambia, Zimbabwe, Botswana, and Angola.

Malawi. Nyika Plateau, 1903, McClounie 81 (K).

**Tabernaemontana stapfiana** Britten 🌿

**Tabernaemontana johnstonii** (Stapf) Pichon; *Conopharyngia stapfiana* (Britten) Stapf.

Tree 5–25 m tall, leaves opposite, 120–400 x 30–140 mm, narrowly elliptic, glabrous; flowers white, large, sweetly scented; fruit in pairs or single, large, 100–200 mm across, green or yellowish dots; in montane forest, 700–2,500 m. Zimbabwe and Mozambique to D.R.C. and Kenya.


**Tecaczea conferta** N.E.Br. 🌿

Tecaczea floribunda K.Schum.; Tecaczea galactagoga Bullock

Robust woody twiner with white latex; scrambling over forest margins; 2,000–2,200 m. Widely distributed in tropical Africa from Ethiopia to Malawi.

Malawi. Nyika Plateau, Zovochipolo Forest patches, Dowsett-Lemaire 251 (K).


**Trachycalymma buchwaldii** (Schltr. & K.Schum.) Goyder 🌿


Short, erect, single-stemed, tuberous herb with white latex and nodding purple flowers; in montane grassland or Brachystegia woodland, generally on steep rocky hillsides; 900–2,400 m. Also found in Tanzania, Burundi, and D.R.C.


**Trachycalymma cristatum** (Decne.) Bullock


Short, erect, single-stemed, tuberous herb with white latex and nodding white or pink flowers; montane grassland or open woodland; 2,000–2,600 m. Widespread in tropical sub-Saharan Africa from Nigeria to Angola and Zimbabwe.


Zambia. Nyika Plateau, Rest House, 2,100m, 1959, Richards 10410 (K).

**Trachycalymma foliosum** (K.Schum.) Goyder

Asclepias foliosa (K.Schum.) Hiern; Asclepias lepida S.Moore; Asclepias minuta A.Chev.; Asclepias modesta N.E.Br.; Gomphocarpus foliosus K.Schum; Trachycalymma pulchellum sensu Bullock, in part.

Erect, single-stemed, tuberous herb with white latex and nodding white flowers; Brachystegia woodland; 1,100–2,000 m. Widespread in savanna regions of S. tropical Africa and W. Africa.


Malawi. Nyika, 1 mile in Nyika Road [from Rumpfii?, 4,900’, 1969, Pawek 3249 (K).

**Tylophora anomala** N.E.Br.

Slender woody twiner with watery latex, large leathery ovate-lanceolate leaves and zig-zag inflorescences with green flowers in clusters; forest margins; 1,500–2,000 m. Kenya, Tanzania, Zambia, Malawi, and Mozambique.


**Tylophora erubescens** (Liede & Meve) Liede ⚫

Tylophoropsis erubescens Liede & Meve

Slender twiner with clear latex, leaves ovate ca 10 mm long; flowers delicate maroon; in wet montane forest; 1,800–2,300 m. Also known from S. Tanzania.


**Xysmalobium undulatum** (L.) Alt.f. 🌿

Asclepias undulata L.; Xysmalobium ensifolium Burch. ex Sc.-Elliot; Xysmalobium angolense Sc.-Elliot

Stout erect herb with white latex, triangular leaves, and hairy, reddish purple flowers, fruit covered in hairy prickles; in damp hollows in montane grassland; 2,000–2,250 m. Widespread in sub-Saharan Africa.


Excluded species

This species does not occur in the area. The record may come from a misidentified specimen of *Asclepias randii* at K, MO, and SRGH labelled *S. cf. teubelii*, or is *S. fornicatum*.

Malawi. Nyika National Park, without locality or collecting details (Pate 1999).

**Landophila kirkii** Dyer

Straggling shrub or liane to 18 m tall. This record is doubtful. Dowsett-Lemaire (1985) did not find it in her comprehensive survey of the Nyika forests. Both White et al. (2001) and *Flora zambesiaca* (1985) do not record this species from N. Malawi. Since Patel quoted no specimen and we have seen no specimens, it is excluded.

Malawi. Nyika National Park, without locality or collecting details (Pate 1999).

**Gomphocarpus glaucophyllus** Schltr.

This is almost certainly *G. praticola*.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

**Stathmostelma welwitschii** Britt. & Rendle

Asclepias welwitschii (Britt. & Rendle) Britt. & Rendle; Stathmostelma chironoides K.Schum. ex De Wild. & T.Durand; Stathmostelma laurinsum Deweere

This is almost certainly *T. foliosum*.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

**Ilex mitis** (L.) Radlk. 🌿

Cape holly; *Chichewa*: katenji; Yao: katenji, mulisanyundo

Evergreen tree to 20 m, leaves simple, margins almost entire with a few minute teeth near the apex, fruit (female trees only) a small red berry; along streams and rivers in evergreen forest and riverine vegetation. From South Africa (Western Cape) to Ethiopia and Guinea.

Malawi. Nyika National Park, Lake Kaulume, 1958, Robson 277 (BM, K, LSC, PRE, SRGH); Dembo Bridge, 2000, Thera 3009 (MAL); near Chelinda Compound, 1959, Adlard 312 (FHO, SRGH).

AQUIFOLIACEAE
**Stathmostelma fornicatum subsp. fornicatum**
Del. Sandie Burrows

**Tacazzea conferta**
Del. Sandie Burrows

**Tabernaemontana stapfiana**
Del. Sandie Burrows

**Trachycalymma buchwaldii**
Del. Sandie Burrows
Tylophora erubescens
Del. Sandie Burrows

Xysmalobium undulatum
Del. Sandie Burrows

Ilex mitis
Del. Sandie Burrows

Cussonia arborea
Del. Sandie Burrows

Cussonia spicata

Plants of the Nyika Plateau
**ARALIACEAE**

*Cussonia arborea* Hochst. ex A.Rich.  
*Cussonia kirkii* Seem.

Octopus cabbage tree; *Chichewa*: m’bwahwa; *Tumbuka*: chipombora;  
Yao: chandimbo

Small to medium deciduous tree to 11 m tall; leaves digitate, leaflets sessile, simple, obovate, glabrous, margins variously toothed; flowers and fruit in 10–12 long sinusous spikes in open woodland or wooded grassland. Very widely spread in tropical Africa.

*Malawi*. Nyika National Park, without locality or collector (Mill 1979).

*Cussonia spicata* Thunb.  

Cabbage tree; Yao: chandimbo

Tree to 20 m tall, often with a small, dense, rounded crown, stem fluted in old specimens; leaves digitate, leaflets lobed apically, with the stalks distinctly winged upwards, dark green, hairless, margins irregular; fruiting inflorescence of several thickened erect ‘fingers’; in forest, open woodland, wooded grassland, and riverine forest; up to 2,500 m. South Africa to E. Africa.


**Polyscias fulva** (Hiern) Harms  
*Polyscias malosana* Harms [Type: Malawi, Malosa Mountain, Whyte s.n. (K)].

Vigorous, erect or semi-procumbent semi-succulent herb, 1.5 m high, rootstocks along streams in forest or woodlands. Widespread throughout tropical Africa from Zimbabwe northwards. A fast-growing pioneer species, often with the crown conspicuous above the forest canopy.

*Source*. Baker (1999); Brummitt (1973); Hilliard (1977); King & Robinson 1985: 21).

**ASTERACEAE**

*Acmella caulirhiza* Del.  

*Spilanthes africana* DC.; *Spilanthes caulirhiza* (Del.) DC.

Creeping and ascending perennial or annual herb to 150 mm high or stems to 600 mm long, often rooting at the nodes; leaves narrowly to broadly ovate, 10–70 × 8–40 mm, base attenuate, margin dentate, petiole 1–15 mm long and narrowly winged; capitula hemispherical becoming conical, terminal, solitary on peduncles to 2–70 mm long; rays 10–15, yellow, 2.2–3.3 mm long, inconspicuous; in wet places by streams and in swamps, cultivated areas, and forest margins. Widespread in tropical and subtropical Africa and Madagascar.

*Source*. Wild (1967: 60); *F.T.E.A. Compositae* (3) (unpublished ms.).


**Adenostemma caffrum** DC. var. *asperum* Brenan  

*Adenostemma schimperi* A.Rich.

Vigorous, erect or semi-procumbent semi-succulent herb, 1.5 m high, rooting at nodes; leaves sessile or shortly petiolate, blade lanceolate to ovate-lanceolate, 40–125 × 13–48 mm, margins sub-entire to serrate, apex obtuse; inflorescence a loose terminal cyme; capitula few to several, 6–10 mm diameter; florets about 50, corolla 3–4 mm long, white; in damp places along streams in forest or woodlands. Widespread throughout tropical Africa.

*Source*. Patel (1999); Brummitt (1973); Hilliard (1977); King & Robinson (1987); *F.T.E.A. Compositae* (3) (unpublished ms.).

*Malawi*. Nyika National Park, 8 km E. of Nganda, 1972, Brummitt, Munthali & Synge 132 (K, MAL, SRGH); Wovwe River, 2000, Willis & Patel 155 (PRE).

**Ageratinastrum polyphyllum** (Baker) Mattf.  

*Ageratinastrum goetzeanum* (O.Hoffm.) Mattf.; *Ageratina goetzeana* O.Hoffm.; *Ageratinastrum polyphyllum* Baker

Erect tufted perennial herb to 1 m high with annual stems; stems many, densely leafy, densely pilose-tomentose and glandular; leaves sessile or sub-sessile, overlapping, alternate or spirally arranged, 2–45 × 4–12 mm, narrowly oblong-lanceolate to narrowly elliptic or ovate; capitula numerous corymbiform cyme; corollas purple; Malawi, Zambia, and Tanzania.


*Malawi*. Nyika Plateau, Nchenachena Spur, ca 2,000 m, 1946, Brass 17345 (BM, K, SRGH); Chelinda Bridge, 2000, Salubeni & Mwanyambo 6768 (MAL); Mbuzinandi, 2000, Salubeni & Mwanyambo 6827 (MAL).


*Anisopappus chinensis* (L.) Hook. & Arn. subsp. *buchwaldii* (O.Hoffm.) S.Ortiz, Paiva & Rodr.-Oubiña var. *buchwaldii*  

*Anisopappus africans* (Hook.f.) Olive & Hiern; *Anisopappus buchwaldii* (O.Hoffm.) Wild; *Anisopappus chinensis* (L.) Hook.f. & Arn. subsp. *buchwaldii* (O.Hoffm.) S.Ortiz, Paiva & Rodr.-Oubiña var. *macrocephala* (Humbert) S.Ortiz, Paiva & Rodr.-Oubiña

Perennial herb or shrublet, 0.4–1.5 m high, stems white-puberulous; leaves...
Plants of the Nyika Plateau

Polycias fulva
Del. Sandie Burrows

Schefflera myriantha
Del. Sandie Burrows

Acmella caulirhiza
Del. Sandie Burrows

Adenostemma caffrum var. asperum
Del. Sandie Burrows

Ageratinastrum polyphyllum
Del. Eleanor Catherine
Ageratum conyzoides
Del. Sandie Burrows

Anisopappus chinensis
subsp. buchwaldii var. buchwaldii
Del. Sandie Burrows

Artemisia afra
Aspilia pluriseta
Del. Sandie Burrows

Del. Sandie Burrows
ovate to deltoid, 10–60 x 3–55 mm, glabular, margins crenate; capitula 5–12 mm long; florets yellow, tube of outer florets 1.4–2.5 mm long, sparsely glandular, ray 6–10 mm long; disc florets 1.7–4.5 mm long; in submontane grassland or miombo woodland, often in damp or marshy sites and thicket margins. Widespread in tropical Africa.


### Malawi

**Malawi.** Nyika National Park, Chelinda Bridge, 2000, Salubeni & Mwanyambo 6770 (MAL); Dembo Bridge, 2000, Thera 3008 (MAL); Juniper Forest, 2000, Chikuni 507 (MAL); Southern Circular Route. Chelinda Bridge, 10° 40’15”S, 33° 51’ 21”E, 2000, Koekemoer 1780 (PRE); Wovwe River catchment area, 2000, Willis 166 (PRE).

**Anisopappus chinensis** (L.) Hook., & Arn. subsp. Buchwaldii (O.Hoffm.), S.Ortiz var. dentatus (DC.) S.Ortiz, Paiva & Rodr.-Oubiña

_Epalage dentata_ DC. var. _macrocephala_ Humbert

Annual herb, 0.1–1 m high, stems reddish or pale green, pubescent; leaves ovate or deltoid, 10–60 x 4–55 mm, pilose and glandular; capitula 4–7 mm long; florets yellow, ray 2.6–5.5 mm long and sparsely glandular below; achenes 0.8–1.1 mm long; pappus absent; grassland, miombo woodland, roadsides, weed of cultivation. Uganda and D.R.C. to Angola, Mozambique, and Zimbabwe.

**Source.** Patel (1999); Wild (1966); F.T.E.A. Compositae (3) (unpublished ms.); Patel & Overton (2002).

**Malawi.** Nyika Plateau, 1903, Mcclinouie 165 (K).

**Aspilia mossambicensis** (Oliv.) Wild

_Wedelia mossambicensis_ Oliv.; _Aspilia vernayii_ Brenan; _Aspilia natalensis_ sensu Wild

Perennial herb or shrub, 10 mm–2.5 m high, single or multi-stemmed, branches scabrid-pubescent, sometimes also glandular; leaves sessile or with short petiole; ovate, narrowly elliptic or lanceolate, 25–200 x 10–85 mm, 3-veined from base; capitula terminal and solitary or in few-headed lax racemes, stalks of individual capitula to 140 mm long; ray florets cream, yellow to orange, 7–17, with or without styles, ray 7–18.5 x 3–6.5 mm; in open woodland, ruderal sites, seasonal swamps, along rivers and lakes, forest margins, and wooded grassland; may be locally common. From Ethiopia through eastern Africa to South Africa.

**Source.** Patel (1999); Wild (1966); Hilliard (1977: 307); F.T.E.A. Compositae (3) (unpublished ms.); Patel & Overton (2002).

**Malawi.** Nyika National Park, between Viewpoint and Chisanga Falls, 10° 40’ 24’’E, 2000, Koekemoer 1693 (PRE).

### Aspilia kotschyi

(Hechst.) Oliv. var. kotschyi

_Dipterocleopa kotschyi_ Hechst.

Annual herb 0.3–1.8 m high; leaves (sub-) sessile, narrowly ovate to narrowly elliptic 30–160 (200) x 6–30(50) mm, base obtruncate or truncate; semiamplexiclad, margin subentire or slightly crenate, hispid on both surfaces; capitula axillary, solitary and subsessile among the upper leaves; ray florets dark red, purple or almost black, less often white, 2–5(11), without styles, ray almost circular, 6–9 mm long; achenes obovoid, 5–6 mm long; pappus a lacerated cupule to 1 mm long and usually with 2 setae; in moist grassland, waste land, a weed of cultivation. Widespread in Central Africa.

**Source.** Patel (1999); Wild (1966); F.T.E.A. Compositae (3) (unpublished ms.); Patel & Overton (2002).

**Malawi.** Nyika Plateau, 1903, McClouie 165 (K).

**Aspilia natalensis** (Sond.) Wild

_Wedelia natalensis_ Sond.

Straggling, branching, rhizomatous perennial herb, to 0.5 m high; leaves opposite, sessile or subsessile, to 120 x 30 mm; capitula solitary, up to 40 mm across the expanded rays; outer involucral bracts herbaceous; inner involucral bracts papyraceous; rays and disc yellow; flowering throughout the year. Widely distributed from D.R.C. and Tanzania through Zambia, Zimbabwe, and Mozambique to KwaZulu-Natal.

**Source.** Hilliard (1977: 306).

**Malawi.** Nyika National Park, without locality or collecting details (Mill 1979); sight record: Mpoppoti Peak, Salubeni, 2001.

### Artemisia afra

(Jacq.) ex Willd. ♦

_Artemisia afra_ Willd. var. _friesiorum_ Kuntze

_Wedelia friesiorum_ Kuntze

_Wedelia friesiorum_ L.; _Aspilia friesiorum_ N.E.Br.; _Aspilia natalensis_ N.E.Br.; _Aspilia kotschyi_ Kuntze

Perennial herb or shrub, multi-branched, usually trailing with distal petalic bracts, 0.3–1 m high; leaves (sub-) sessile, ovate or narrowly ovate, 20–50(80) x 8–20(35) mm; capitula terminal, solitary or up to 3 together; ray florets yellow or orange-yellow, 9–16, without styles, ray 10–15 mm long; in grassland, woodland, a pioneer of cultivation and ruderal sites, may be locally common. Uganda and Kenya southwards to South Africa.


**Malawi.** Nyika National Park, Jalawe Viewpoint, 10° 21’ 44”S, 33° 47’ 49”E, 2000, Koekemoer 1872 (PRE); Fingira Rock, 2000, Willis & Luhanga 254 (PRE).

**Aster harveyanus** Kuntze subsp. niakensis W.Lippert

Perennial, 0.3–0.6 m high; leaves lanceolate, 50–100 x 7–15 mm, 3- to 5- nerved; peduncles 150–300 mm long; capitula radiate; rays 15–20 x 2–4 mm; disc florets 5–6 mm long; achenes densely hispid and glandular; pappus 6–7 mm long; in high mountain grassland and miombo. Zambia, Malawi, and Zimbabwe.

**Source.** Lippert (1973).

**Malawi.** Nyika, 1 mile from Zambia Rest House, 1967, Pawek 1431 (SRGH).
Aster tansaniensis W.Lippert

Perennial with several annual shoots 0.1–0.75 m high; leaves sessile, narrowly ovate to lanceolate, 10–75 x 3–17 mm, glandular with 3–5 longitudinal veins; capitula solitary or up to 4–15 mm long; ray florets 15–25, ray white to pale pink or mauve, 10–16 x 2–3 mm; inner florets yellow, 2–5 mm long; a pyrophyte in regularly burned grassland. Tanzania, D.R.C., Zambia, and Malawi.


Malawi. Nyika Plateau, Lake Kaulime, ca 2,150 m, 1958, Robson & Angus 329 (BM, K, LISC, SRGH, PRE).


Athrixia rosmarinifolia (Sch.Bip.) Oliv. & Hiern var. foliosa (S.Moore) Kroner

Perennial herb or subshrub 0.2–1.2 m high with one to several stems, stems grey-tomentose and glandular; leaves sessile, lanceolate or linear, white-tomentose beneath, araneose-puberulous and glandular above, but glabrescent; capitula 6–10 mm long, solitary or in few-headed cymes; involucre pale green with dark tips; ray florets mauve, pink or purple, 8–23, ray elliptic, 3.5–7.5 x 1.2–1.6 mm; disc florets yellow or orange-yellow, 16–94; in montane grassland. Malawi and Zimbabwe.


Malawi. Nyika National Park, W. foot of Nganda 1972, Brummitt, Munthali & Syngre 69 (MAL); along the road from Chelinda Camp to Chisanga Falls, 10° 36′ 46″S, 33° 35′ 24″E, 2000, Koekemoer 1705 (PRE).

Athrixia subsimplex Brenan

Perennial woody herb 0.3–0.5 m high, hardly branched; stems grey-tomentose, densely leafy; leaves linear, 5–40 x 1–2 mm, sparsely pubescent or glabrous above, white-tomentose beneath; capitula 8–12 mm long, solitary or in a few-headed cymes; involucre with dark tips; ray florets mauve, 14–30, ray elliptic, 7 x 1.3–2.5 mm; disc florets orange-yellow, 60–80; in montane grassland. Malawi and Tanzania.


Malawi. Nyika Plateau, 1946, Brass 17246 (K, MO); Chosi Viewpoint, 10° 36′ 55″S, 33° 45′ 00″E, 2000, Phiri 3357 (ULIZ); W of Vikartshika Hill, 2000, Salubeni & Mwanyambo 6757 (MAL); Jalawe Viewpoint, 10° 21′ 44″S, 33° 47′ 49″E, 2000, Koekemoer 1865 (PRE); Mpopoti Peak, 2000, Willis & Luhanga 100 (PRE).

Berkheya zeyheri (Sond. & Harv.) Oliv. & Hiern subsp. zeyheri

Crociodolites zeyheri (Sond. & Harv.) O.Kuntze; Strobaea zeyheri Sond. & Harv.; Berkheya insignis sensu Brenan.

A tufted perennial herb 0.1–0.9 m high; leaves sessile, 30–150 x 1–13 mm, linear or lanceolate, margins spinescent-denticulate, bristles 5–20 mm long; capitula radiate, solitary, terminal; rays yellow, mostly 15–20 x 1.5–4 mm; a pycnocyte of submontane and plateau grassland, miombo and Uapaca woodlands, in dambos, on rocky outcrops or in shallow stony soils. Malawi, Zambia, Zimbabwe, Mozambique, South Africa, and Swaziland.


No country given. 1967, Richards 22417 (UZL).

Bidens acuticaulis Sherff var. acuticaulis

Bidens panpulicera Sheriff; Bidens ciliata B.Wild.

Annual herb to 1 m high, stem simple or branched; leaves pinnate or bipinnatifid, to 130 x 60 mm, segments 3–5; capitula solitary, terminal, peduncle to 150 mm long; ray florets 5–8, yellow, 6–7 mm long, upper part paler, 5– 6-striate; disc florets yellow; in Brachystegia woodland and grassland. Tanzania, D.R.C., Angola, Zambia, Mozambique, and Malawi.


Malawi. Nyika National Park, Chisanga Falls and Kaperekezi Gate, 2000, Salubeni & Mwanyambo 6837 (MAL); path down to Chisanga Falls, 10° 32′ 9.5″S, 33° 40′ 9.4″E, 2000, Burrows & Burrows 6773 (PRE).

Bidens baumbii (O.Hoffm.) Sheriff

Coreopis baumbii O.Hoffm.; Coreopis scabrifolia Sheriff; Bidens ruandensis Sheriff.

Perennial herb, 0.6–1.3 m high, erect to decumbent, single-stemmed; leaves lanceolate to ovate 60–150 x 10–31 mm, simple or pinnately 3–7 lobed, surface hispid-ciliate, margins coarsely serrate-dentate with teeth calllose; capitula terminal, solitary or few in lax cymes; ray florets yellow, 6–8, neuter, ray 15–18 x 7–8 mm; disc florets yellow, to 6 mm long; in grassland or scrub. Tanzania, D.R.C., Rwanda, Burundi, Angola, Malawi, and Zambia.


Bidens bitemnata (Lour.) Merr. & Sheriff

Bidens cylindrica Sheriff; Bidens panpulicera Sheriff.

Annual herb, up to 1.5 m high; leaves once pinnate with (3)5–9 narrowly ovoid leaflets, basal pair deeply divided into two asymmetric lobes; pappus ams 3 or 4(5); flowers yellow. Flowering February to May; in forest margins, short grassland, stream- and river-banks, among rocks on mountain slopes, roadsides, and margins of cultivation. Tropical and subtropical parts of Africa, S.W. Asia, E. Asia, and Australia.


Malawi. Nyika National Park, Jalawe Viewpoint, 10° 21′ 44″S, 33° 47′ 49″E, 2000, Koekemoer 1869 (PRE); Juniper Forest, near bridge, 10° 40′ 56″S, 33° 53′ 15″E, 2000, Lees & Luhanga 212 (PRE).

Bidens crocea Welw. ex O.Hoffm.

Bidens crocea var. verrucifera S.Moore

Perennial herb, up to 1 m high; stems single or several from a woody rootstock; leaves pinnatifid with 3–5 linear segments or bipinnatifid, up to 150 mm long; capitula solitary, broadly campanulate, 10–15 x 4–8 mm; ray florets golden yellow, 8, neuter; rays linear-oblong with 9 dark orange stripes, to 25 x 5 mm; disc florets yellow; in miombo woodland and grass-
Plants of the Nyika Plateau

Aster tansaniensis
Del. Sandie Burrows

Berkheya zeyheri subsp. zeyheri
Del. Victoria Goaman

Bidens acuticaulis var. acuticaulis
Del. Sandie Burrows

Athrixia rosmarinifolia var. foliosa
Del. Sandie Burrows
land. Tanzania, D.R.C., Angola, Malawi, and Zambia.


**Bidens diversa** Sherff

*Bidens fulidosmis* Sherff

Annual herb, 0.3–0.5(1) m high; leaves pinnate to 10 mm long with a filiferous fach and 3–5 filiform segments to 50 mm long; capitula solitary, terminal, peduncle to 120 mm long; ray florets 8–15, yellow, 15–20 x 3–5 mm, striate; achenes black, narrowly ellipsoid, striate-sulcate and bristly, with 2 aristae 1 mm long; in woodland on rocky outcrops, gregarious elsewhere.

Tanzania, Angola, Zambia, Malawi, and Mozambique.


**Bidens kilimandscharica** (O.Hoffm.) Sherff

*Coryosopsis kilimandscharica* O.Hoffm.

Perennial herb, to 3 m high; leaves variable, up to 150 x 100 mm, upper leaves often simple and sessile, lower leaves pinnatipartite to bipinnatisect, pubescent on both surfaces; capitula solitary, 60–80 mm wide, several in compact corymbose cymes; ray florets 8–13, neuter, golden yellow, ray up to 40 x 11–15 mm, with 12 dark orange longitudinal striae; disc florets yellow, 2 mm long; on forest margins, woodland on rocky outcrops and mountain slopes. Uganda and Kenya to Angola, Malawi, and Mozambique.


**Bidens lineariloba** Oliv.

*Bidens lineariloba* Oliv. var. *deminuta* Sherff

Annual herb, 0.6–1.5 m high, much branched; leaves irregularly 2–pinnatipartite, 40–160 x 20–90 mm, segments linear or lanceolate; capitula in lax terminal cymes, radiate, peduncle to 80 mm long; ray florets 6–8, yellow, ray 20–30 x 6–12 mm, striate; disc florets yellow or brown; on rocky grassland on mountain slopes, also in disturbed areas. Kenya, Uganda, Tanzania, D.R.C., and Burundi.


Malawi. Nyika National Park, between Viewpoint and Chisanga Falls, 10° 160’S, 35° 41’E, 2000, Phiri 3620 (UZL); between Viewpoint and Chisanga Falls, 10° 32° 31’S, 33° 41’O 7’E, 2000, Koekemoer 1714 (PRE); Mwanda Mountain slope, 2000, Willis 189 (PRE).

**Bidens ochracea** (O.Hoffm.) Sherff

*Coryosopsis ochracea* O.Hoffm.; *Coreyssopsis cosmophylla* Sherff; *Corosopsis ochraceoides* Sherff

Perennial herb to 1.5 m high; leaves pinnatisect, 200(300) x 15–100(150) mm long, densely 2–3-pinnatisect, lobes yellow or brown; capitula terminal, solitary or in lax cymes; ray florets yellow or orange, ligule 6–20 mm long, 2–3-dentate or entire, with ca 10 darker longitudinal veins; in woodland and grassland; at times a ruderal weed of arable land. Ethiopia and Sudan southwards to Angola, Namibia, and South Africa.


Malawi. Nyika Plateau, 1903, McClannie 133 (K).

**Bidens pinnatifida** (O.Hoffm.) Wild

*Coryosopsis pinnatifida* O.Hoffm.; *Coreyssopsis obtusifolia* Sherff

Robust branching perennial up to 3 m high; leaves petiolate, petiole up to 50 mm long, lamina up to 190 x 190 mm, pinnatipartite; capitula (1)–3(5) crowded together on peduncles up to 30 mm long, up to 60 x 10 mm at anthesis; ray florets yellow, neuter, 6–12, ligule 25–30 x 5–7 mm; disc florets orange-yellow, to 8 mm long; in montane grassland with scattered shrubs, often along forest margins. Angola, Zambia, Malawi, Tanzania, and Mozambique.


**Bidens schimperi** Sch.Bip.

*Bidens schimperi* Sch.Bip. var. *leptocera* Sherff; *Bidens schimperi* Sch.Bip. var. *punctata* Sherff; *Bidens schimperi* Sch.Bip. var. *brachycera* Sherff; *Bidens schimperi* Sch.Bip. var. *leiocera* Sherff

Annual herb to 1.5 m high; leaves broadly ovate in outline, petiolate, lamina 25–200(300) x 15–100(150) mm long, deeply 2–3-pinnatisect, lobes yellow; capitulo erect or nodding, in lax corymbose cymes; ray florets 6–8, yellow or occasionally orange, ligule 6–20 mm long, 2–3-dentate or entire, with ca 10 darker longitudinal veins; in woodland and grassland; at times a ruderal weed of arable land. Ethiopia and Sudan southwards to Angola, Namibia, and South Africa.


Malawi. Nyika Plateau, 1903, McClannie 133 (K).

**Bidens steppia** (Steetz) Sherff

*Corosopsis steppia* Steetz

Annual herb 0.7–2 m high; leaves deltoid in outline, incised to bi- or tristipulate or pinnatifid, 25–350 x 20–260 mm, petiole absent or to 90 mm long; capitula terminal, solitary or in lax cymes; ray florets yellow or orange, 8–13, ray 25–35 x 5–12 mm, striate; in grassland, floodplain vegetation, bushed grassland, and woodland; weed of cultivation and roadsides. Cameroon and C.A.R. to Angola, Zambia, Malawi, Mozambique, and Zimbabwe.


Malawi. Nyika National Park, Jalawe Viewpoint, 2000, Thera 3106 (MAL); Blumea axillaris (Steetz) Sherff

Annual herb 0.7–2 m high; leaves pinnatifid, ovate in outline, with 3–7 segments, 40–180 x 20–70 mm, leaf segments 1.5–7 mm wide; capitula 1–3, peduncles to 150 mm long; ray florets or golden yellow, 8–9, neuter, with 10 dark orange stripes; disc florets pale cream-yellow; on stony hillsides and open tall grassland. Tanzania, Malawi, and Zambia.


*Bidens pilosa* L.

*Bidens sundacca* Blume; *Bidens lencantha* (L.) Wild.

Annual herb, up to 1.5 m high; leaves trifoliolate or pinnately 5-foliolate, leaflets narrowly ovate to ovate-oblong, margins crenate-serrate; pappus awns 2 or 3; flowers with rays creamy white or absent; disc yellow; road-side weed and noxious weed of cultivation. In most tropical and subtropical regions of the world; also extending into some temperate areas.


Malawi. Nyika National Park, Juniper Forest next to the bridge, 10° 45’ 06” S, 33° 53’ 15” E, 2000, Koekemoer 1886 (PRE).

**Bothriocline inyangana** N.E.Br.

*Erlangea rogersii* S.Moore; *Erlangea inyangana* (N.E.Br.) Burtt; *Bothriocline longipes* sensu Wild & G.V Pope

Erect bushy perennial herb or suffrutex 0.6–3 m high; leaves opposite, sometimes 3-3-lobed, 40–200 x 15–80 mm, elliptic to lanceolate; capitula small, numerous in corymbiform cymes; corollas mauve or purplish; in submontane, tall grassland, evergreen forest margins, stream banks at high

Plants of the Nyika Plateau

Blumea axillaris
Del. Sandie Burrows

Bothriocline longipes
Del. Eleanor Catherine

Brachythrix glomerata
Del. Eleanor Catherine

Carduus nyassanus
Del. Eleanor Catherine
alteus, and in long grass in high-rainfall wooded grassland. Malawi, Zambia, Mozambique, Tanzania, and D.R.C.


Bothriocline laxa N.E.Br.

Erlangea laxa (N.E.Br.) S.Moore Erect annual herb, 0.1–1.2 m high; leaves opposite, uppermost alternate, petiolate, lamina 30–130 x 10–55 mm, elliptic; capitula few to numerous, lax corymbiform cymes; corollas mauve or purplish; in miombo woodland, wooded grassland, submontane grassland, often as a weed of disturbed or cultivated ground and at roadsides. Zimbabwe, Malawi, Mozambique, Tanzania, D.R.C., Angola, and South Africa.


Bothriocline longipes (Oliv. & Hiern) N.E.Br. •

Bothriocline longipes (Oliv. & Hiern) Closely related to B. pawekiae

Bothriocline pectinata

Erlangea pectinata (Hutch. & Burtt) Wild & G.V.Pope; Bothriocline pectinata (Oliv. & Hiern) Wild & G.V.Pope Erect bushy suffrutex, with stems 1–2.5 m high from a woody rootstock; leaves opposite, petiole ca 40 mm long, lamina mostly 40–200 x 15–90 mm, lanceolate; capitula small, numerous, laxly corymbiform cyme; corollas mauve or purplish; in submontane tall grassland, usually on rocky outcrops and in evergreen forest margins at higher altitudes, in long grass in high-rainfall wooded grassland, often in riverine vegetation at lower altitudes. Malawi, Sudan, Rwanda, Burundi, Uganda, Kenya, Tanzania, D.R.C., and Angola.


Malawi. Nyika National Park, between Chelinda Bridge and Dumbo River Crossing, 10°32’38”S, 33°50’33”E, 2000, Koekemoer 1742 (PRE).

Zambia. Nyika National Park, ca 0.5 km S. of Zambian Government Rest House, 2,260 m, 1986, Philcox, Pope & Chisumpa 9958 (BR, K, NDO, SRGH).

Bothriocline pectinata (O.Hoffm.) Wild & G.V.Pope

Erlangea pectinata O.Hoffm. Erect soft perennial herb to 2 m high, stems leafy; leaves alternate, subsessile, mostly 80–260 x 12–60 mm, narrowly elliptic-oblancoelate; capitula small, numerous, becoming laxly arranged on divaricate branches; corollas pale lilac fading whitish; in submontane evergreen forest understorey, in clearings, and on forest margins. Malawi and Tanzania.


Bothriocline ripensis (Hutch.) Wild & G.V.Pope

Volkensia ripensis Hutch. Lax perennial herb to 1.5 m high or stems scrambling to 5 m long; leaves alternate, petioles to 10 mm long, lamina mostly 40–170 x 10–50 mm, narrowly to broadly cuneate; capitula small, numerous, laxly corymbiform cyme; corollas purplish mauve fading white; in swamp forest, gully forest, and submontane evergreen forest, usually beside streams. Malawi and Zambia; not known outside the Flora zambesiaca area.


Bothriocline trifoliata (De Wild. & Muschl.) Wild & G.V.Pope

Erlangea trifoliata De Wild. & Muschl.; Erlangea mooreana Alston; Bothriocline mooreana (Alston) Wild & G.V.Pope Erect perennial herb with annual stems 0.2–0.75(1) m high from small woody rootstock; leaves subsessile, patent, in whorls of three, 20–50 x 5–20 mm; capitula small, few to numerous, corymbiformly cyme; corollas purple; pappus of few very caducous barbellate setae 1–2 mm long; in submontane short grassland, Brachystegio and Uapaca woodland, and high-rainfall miombo. Malawi, Zambia, Tanzania, D.R.C., and Angola.


Malawi. Nyika Plateau, Chisanga Falls path from Nthatile Road, ca 1,900 m, 1982, Brummitt, Polhill & Banda 16180 (BR, C, K, LISC, MAL, MO, SRGH, WAG); ibid. 2000, Koekemoer 1715 (PRE); Fingira Rock, 2000, Willis & Luhanga 238 (PRE).

Brachychryx glomerata (Mattf.) C.Jeffrey •

Agaritanastrum glomeratum Mattf.; Brachychryx brevipapposa subsp. brevipapposa Wild & G.V.Pope Erect perennial suffrutex herb with annual stems, up to 1.7 m high; leaves subsessile, 50–140 x 20–70 mm, broadly elliptic to narrowly oblong-elliptic or lanceolate; capitula numerous, aggregated into corymbiform clusters; florets 40–120 per capitulum; corollas purple; in submontane grassland and with tall grasses at lower altitudes, in Brachystegia woodland, on hillsides, often on termite mounds. Zambia, Mozambique, Tanzania, and D.R.C.


Brachychryx maladiensis (Wild & G.V.Pope) G.V.Pope

Brachychryx brevipapposa subsp. maladiensis Wild & G.V.Pope Similar to B. glomerata, but the leaves narrowly oblong-elliptic, densely grey-felted on lower surface; phyllaries linear-lanceolate, subequal or outer phyllaries 5–7 mm long, mostly more than half as long as the involucre, their apices finely tapering, subulate; in submontane grassland and woodland. Known only from Nyika Plateau.


Malawi. About 50 km from Rumpu on Chisenga Road, Richards 14373 (K, holo., SRGH); Nyika Plateau, ca 6 km downstream from Lake Kaulume, 2,133 m, 1968, Sinon, Williamson & Ball 1754 (K, M, SRGH).

Brachychryx pawekiae Wild & G.V.Pope Erect perennial herb 0.2–0.4 m high; stems purple; leaves mostly 30–90 x 4–13 mm, decreasing in size to stem apex and base, narrowly oblong-elliptic; capitula few to many in lax capitulum clusters; florets ca 70 per capitulum; corollas purple; in submontane short grassland. Known only from Nyika Plateau, but apparently fairly common there.


Malawi. Nyika Plateau, Chelinda Bridge, Pawek 3385 (K, holo.); ca 2 km N. of Chosi Peak, 1986, Philcox, Pope & Chisumpa 10018 (BR, GA, LISC, MAL, MO, NDO, SRGH); Chosi Viewpoint, 10°36’46”S, 33°45’24”E, 2000, Koekemoer 1683 (PRE); Mpopedi Peak, 2000, Willis & Luhanga 75 (PRE); Nthakati Peak, 2000, Willis, Patel & Luhanga 136 (PRE).

Brachychryx sonchoides Wild & G.V.Pope

Erect perennial suffrutex herb with annual stems to 1.3 m high; leaves sessile, mostly 40–90 x 7–30 mm; capitula numerous, aggregate in dense subglobose; florets ca 20 per capitulum; corollas purple; in submontane grassland, evergreen forest margins, and stream bank vegetation. Known only from the Nyika Plateau.


Zambia. Nyika Plateau, Kangampande Mountain (Chowfo Forest), 2,133 m, 1952, White 2756 (FHO, K); without locality, 1962, Fanshawe 7320 (K, NDO).

Brachychryx stolzii (S.Moore) Wild & G.V.Pope

Muschleria stolzii S.Moore Closely related to B. pawekiae, but distinguished by its subscape habit with the largest leaves clustered on the lower stem, and by the outer pappus of free membranous scales. Reported in Flora zambesiaca as confined to...
Tanzania only; this record should therefore be regarded with caution since we have no confirmed specimen available.


**Carduus nyassanus** (S.Moore) R.E.Fr. *

Carduus nyassanus (S.Moore) R.E.Fr. var. maunderensis R.E.Fr.; Carduus leptacanthus Fresen. var. steindrichi Engl.; Carduus leptacanthus Fresen. var. nyassanus S.Moore

A spinose perennial herb to 1.5 m high; stems usually simple, densely leafy below, winged; basal leaves 100–330(500) mm x 20–65 mm, narrowly oblanceolate in outline, pinnately divided, margins coarsely dentate with teeth and apices strongly spine-tipped; capitula many, densely aggregated terminally; corollas white, reddish tinged or mauve, 10–13 mm long; on stream-sides and moist localities in montane grassland; flowering August–January. Central Africa northwards to Sudan, Nigeria, and Cameroon.

**Source.** UZL; Patel (1999); Flora zambesiaca 6(1): 51 (1992).

**Malawi.** Nyika Plateau, near Chelinda challets, 1960, Hilliard & Butt 4449 (K, NDO, SRGH); at 2°4'53"S, 33°48'25"E, 2000, Koekemoer 1797 (PRE); tributary of Wovwe River, 2000, Willis 159 (PRE).

**Zambia.** Nyika Plateau, without locality, 1962, Fanshawe 7316 (K, NDO, SRGH).

**Chrysanthemoides monilifera** (L.) Nordl. subsp. septentrionalis Nordl. *

Osteospermum moniliferum L.

Perennial herb, 0.1–0.3 m high, densely branched, branches hairy when young, but usually soon glabrescent; leaves obovate to elliptic, up to 60 mm long and 30 mm wide, denticulate with teeth to 1 mm long; capitula 5–7 mm long, solitary or few together; ray florets 7–10, 9–13 x 2–4 mm, yellow; disc florets about 20, 5–6 mm long, yellow; drupes reddish purple to black, elliptoid-obovoid, 5–7 x 2.5–4.5 mm; hillsides, grassland, montane forest margins. Kenya, Tanzania, Malawi, Mozambique, Zimbabwe, and South Africa.


**Malawi.** Nyika National Park, access road near Juniper Forest, 2000, Burrows & Burrows 6916 (MAL, PRE, UZL).

**Cineraria deltoidea** Sond. *

Cineraria grandiflora Vatke; Cineraria buchanani S.Moore

Perennial herb, 0.1–0.3 m high, erect or more usually scandent or trailing; leaves deltoid in outline, 10–70 x 10–93 mm, base subtruncate to deeply cordate or emarginate; capitula often in copious terminal cymes; ray florets 4–14, yellow, rays 4–14 x 1.5–3.5 mm; achenes dark-coloured, 2–3.5 mm long, outer compressed and slightly winged, inner 3-angled, shortly ciliate or glabrous; pappus 3–6 mm long; on forest margins; flowering in June. Ethiopia and Sudan southwards to South Africa.

**Source.** Hilliard (1977: 379); F.T.E.A. Compositae (3) (unpublished ms.).

**Malawi.** Nyika National Park, Southern Circular route at Chelinda bridge, 10°40′15″S, 33°48′25″E, 2000, Koekemoer 1778 (PRE); ibid., 2000, Koekemoer 1807 (PRE); road to Domwe, 2000, Winter 4088 (PRE).

**Cirsimium buchwaldii** O.Hoffm. *

thistle

Robust spiny, stiffly erect, rhizomatous perennial up to 2 m; sparingly branched above; capitula 3–10 in loose apical arrangement, ca 13–20 mm long, discoid; florets white to pinkish blue; basal leaves and rhizomes seldom represented on herbarium specimens; common in marshy situations in montane grassland. Malawi, Tanzania, Uganda, Rwanda, Kenya, and Sudan.


**Malawi.** Nyika National Park, E. foot of Ngandza, 1972, Brunmmitt & Sygve110 (K, MAL, SRGH); below Sangule Kopje, 7 km S.W. of Chelinda Camp, 2,255 m, 1970, Brunmmitt 10770 (K, SRGH); Luselo River, 2000, Salubeni & Mwanyambo 6803 (MAL).

**Conyza aegyptiaca** (L.) Aiton

Erigeron aegyptiacus L.; Conyza transvaalensis Brenek.

Annual or biennial herb 0.3–1.5 m high, slightly viscid and aromatic; leaves mostly cauleine, sessile, lanceolate to spatulate, 20–120 x 5–50 mm, cut to midrib in at least lower half; capitula 5–10 mm long in rather lax leafy corymbs or panicles, densely hairy and glandular; florets pale yellow or cream, marginal florets >100, tube 1.5–2.2 mm long; central florets few, tube 2.2–3 mm; a weed of cultivation and gardens, on margins of forests and bush clumps. Widespread in Africa, also in tropical Asia and Australia.

**Source.** Patel (1999); Retief & Hemain (1997: 300); Wild (1975: 51); F.T.E.A. Compositae (2): 496 (2002).

**Malawi.** Nyika Plateau, Chelinda Dam, 1967, Hilliard & Butt 4444 (E, K); between Chelinda Bridge and Dtembo River crossing, 10°32′09″S, 33°51′17″E, 2000, Koekemoer 1753 (PRE).

**Zambia.** Nyika, without locality, 1962, Fanshawe 7251 (K, M).

*Conyza albida* Willd. *

Erigeron sumatrensis Retz.; Erigeron floribundus (Kunth) Sch.Bip.; Conyza floribunda Kunth; Conyza sumatrensis (Retz.) E.Walker

The name *C. albida* is recognized in PRE (following Danin, South African Journal of Botany 56: 412–413 (1990), and Guedes and Jovet, Taxon 24: 393–394 (1975). However, the name is not recognized in F.T.E.A.. Compositae Part 2 although all the above synonyms are treated as synonyms of *C. bonariensis*. *C. albida* is regarded as intermediate between *C. bonariensis* and *C. canadensis*. It is an annual or biennial herb to 0.2–0.3 m high; leaves lanceolate to oblong-ovate, with long and short hairs; flowers tubular; receptacle aculeolate. It is a common, widespread weed along roadsides and in disturbed areas. Although this species has not yet been recorded for Malawi, the voucher specimen best matches the concept of *C. albida* in PRE.

**Source.** Danin (1990).

**Malawi.** Nyika Plateau, Juniper Forest Reserve in disturbed area of car park, 10° 45.05′S, 33° 53.12′E, 2000, Burrows & Burrows 6927 (PRE).

*Conyza bonariensis* (L.) Cronquist

Erigeron bonariensis L.; Erigeron sumatrensis Retz.; Conyza floribunda Kunth; Erigeron floribundus (Kunth) Sch.Bip.; Conyza sumatrensis (Retz.) E.Walker


**Malawi.** Nyika National Park, Southern Circular Route to Chelinda Bridge, 10°37′17″S, 33°48′15″E, 2000, Koekemoer 1799 (PRE).

**Conyza limosa** O.Hoffm.

Erigeron mildbraedii Musch.; Conyza mildbraedii (Musch.) Robyns

Erect herb 0.3–1.2 m high; basal leaves elliptic to oblong-oblanceolate, 120–450 x 15–80 mm, pseudopetiole 60–140 mm long; cauleine leaves lanceolate to panduriform, 15–120 x 5–25 mm, pseudopetiole to 60 mm long; capitula 6–10 mm long, few together in cymes which unite in a lax corymb; in open grassland, valleys, swampy areas, and in cultivated land. Kenya westwards to Nigeria and southwards to Angola and Zimbabwe.


**Malawi.** Nyika National Park, 5 km S. of Chelinda, 1983, De Kruif 1324 (PRE); Domwe, 2000, Winter 4101 (PRE).

**Zambia.** Nyika Plateau, 1959, Richards 10427 (K, LISC).

**Conyza pyrrhopappa** Sch.Bip. ex A.Rich.

Erigeron pyrrhopappus (A.Rich.) Sch.Bip.; Pluchea crenata Quezeh; Microglossa oblongifolia O.Hoffm.; Psiaidea benshermaniana S.Moore

Coarse, erect aromatic perennial herb or subshrub to 2 m high, densely hairy, rarely somewhat scabrid; leaves sessile or pseudopetiolate, elliptical or lanceolate, 20–90 x 3–30 mm; inflorescences in terminal clusters 40–190–230 mm wide; florets sweet-scented; marginal florets 30–40, pale yellow or white, ray linear to narrowly elliptic, 0.6–3.5 mm long; disc florets yellow, 5–17; a variable and widespread species of grassland and woodland.
Chrysanthemoides montiflora subsp. septentrionalis
Del. Sandie Burrows

Cineraria deltoidea
Del. Sandie Burrows

Cirsium buchwaldii
Del. Eleanor Catherine

Coryza albida
Del. Sandie Burrows
land in higher rainfall areas, often in moist localities. From Nigeria to Sudan and Egypt, and southwards to Angola, Zambia, and Malawi. 


**Malawi.** Nyika Plateau, 1903, Henderson s.n. (BM). 

**Conyza steudelii** Sch.Bip. ex A.Rich. 


Annual or biennial herb, 0.3–2 m high, stems erect or scendant, pubescent and glandular; leaves pale green, spatulate, 15–140 x 5–60 mm, with a winged pseudopetiole; capitula 3–7 mm long, up to 15 together to form a cymose panicle; florets white, cream or pale yellow; marginal florets >100, the tube 0.7–1.5 mm long; central florets 6–9, tube 2.1–2.7 mm long; a weed of cultivation, also in grassland, woodland, and forest margins. Yemen, Ethiopia, and Sudan to Cameroon, Zambia, and Malawi. 


**Zambia.** Nyika, without locality, 1962, Fanshawe 7281 (K). 

**Conyza stricta** Willd. 

_Conyza macrorrhiza_ A.Rich.; _Conyza vatkeana_ Oliv. & Hiern; _Conyza stricta_ Willd. var. _putatifida_ (D.Don) Kitam 

Erect annual or short-lived perennial herb, 0.3–1.1 m high; leaves oblanceolate to spatulate, 10–50 x 2–15 mm, scabrid and glandular on both surfaces; inflorescence of subglobose dense cymes ca 10–30 mm diameter; capitula 2–4 mm long; florets yellow; marginal florets 46–60; central florets 2–8, tube 1.4–2.2 mm long; a variable weed in montane grassland, often in rocky sites, a pioneer on roadsides and in disturbed land. Throughout tropical Africa from Somalia to Mozambique, also in Madagascar, India, Nepal, Arabia, and China. 

**Source.** Patel (1999); Wild (1975: 41); UZL; *F.T.E.A. Compositae* (2): 500 (2002).

**Malawi.** Nyika Plateau, Chelinda Bridge, 1977, Pawen 13187 (PRE); Southern Circular Route to Chelinda Bridge, 10° 37' 17''S, 33° 48' 15''E, 2000, Koekemoer 1800 (PRE). 

**Conyza subsessiposa** O.Hoffm. 

Herb from a perennial rootstock with a basal leaf rosette and a single stem 1–3 caudine leaves; basal leaves shiny, obovate, 15–60 x 10–30 mm, sparsely hispid on both surfaces; inflorescence of fairly dense cymes, terminal or axillary in the upper bracts, cymes 15–20 mm diameter, composed of many small florets pale yellow, marginals yellow or orange, central florets >20, tube 3.2–4.1 mm long; achenes 1.7–2.5 mm long, ribbed, sparsely hairy; pappus 5–10 mm long; in moist and evergreen forest margins. From Nigeria to Ethiopia and S. to Angola and Zimbabwe; also in Madagascar. 

**Source.** F.T.E.A. Compositae (3) (unpublished ms.).

**Malawi.** Nyika National Park, South Circular Route, 10° 39' 54''S, 33° 45' 06''E, 2000, Koekemoer 1839 (PRE). 

**Craspeditopsis crepidoidea** (Benth.) S.Moore. 

_Gynura crepidoidea_ Benth.; _Craspeditopsis diversifolium_ Hiern 

Annual erect herb up to 1.2 m high; leaves sessile, obovate, broadly elliptic, rhombic or ovate, entire or with 1–8 lobes at base, 50–260 x 20–100 mm, margins sinuate-serrate; capitula few to numerous in dense or lax terminal corymbs, discoid, drooping at anthesis; florets orange-red or brick-red, corolla 7–12 mm long; on forest margins, moist sites along rivers and lakes, a common weed of disturbed places and cultivation. W. Africa, Ethiopia and S. to South Africa; naturalised in large parts of tropical Asia and the Pacific. 

**Source.** Retief & Herman (1997: 302); *F.T.E.A. Compositae* (3) (unpublished ms.).

**Malawi.** Nyika National Park, without locality or collecting details (Mill 1979). 

**Craspeditopsis montuosus** (S.Moore) Milne-Redh. 

_Seneo montuosus_ S.Moore; _Craspeditopsis afrormontanum_ R.E.Fr. 

Annual or short-lived perennial herb or soft-wooded shrub, erect or sometimes semi-scandent, 0.2–2.4 m high; leaves sessile, ovate, lanceolate, elliptic or obovate, unlobed or 2–8-lobed, 53–410 x 15–220 mm; capitula numerous in congested terminal corymbs, discoid; florets yellow or sometimes orange, corolla 5.5–9.5 mm long; achenes 1.7–2.5 mm long, ribbed, sparsely hairy; pappus 5–10 mm long; in moist and evergreen forest margins. From Nigeria to Ethiopia and S. to Angola and Zimbabwe; also in Madagascar. 

**Source.** F.T.E.A. Compositae (3) (unpublished ms.).

**Malawi.** Nyika National Park, without locality or collecting details (Mill 1979). 

**Craspeditopsis picridifolia** (DC.) S.Moore. 


Perennial herb 0.3–1.2 m high or scrambling; leaves narrowly to broadly lanceolate, sessile or cuneate to attenuate into a usually auriculate petiolar base, margins coarsely toothed; capitula 1–5, terminal, lax, discoid; flowers bright golden-yellow or orange, corolla 7.2–11.5 mm long; in marshy places, swamps or swampy grassland, may be locally common or even mat-forming. Widespread throughout tropical Africa. 

**Source.** Mill (1979); Retief & Herman (1997: 302); *F.T.E.A. Compositae* (3) (unpublished ms.).

**Malawi.** Nyika National Park, Kaulime River N. of Lake Kaulime, 2000, Willis & Luhanga 123 (PRE). 

**Craspeditopsis rubens** (Jacq.) S.Moore var. _rubens_ 

_Seneo rubens_ Jacq.; _Seneo cernus_ L.f.; _Gynura cernus_ (L.f.) Benth.; _Gynura rubens_ (Jacq.) Muschl. 

Annual herb 0.2–1.5 m high, erect; leaves often narrowly and deeply 2- to 8-lobed; capitula 1–4, broadly cylindric, 9.5–13 mm long; disc florets blue, purple, mauve, magenta, pink or red; in grassland or swampy to muddy sites, usually in disturbed soil; a weed in disturbed areas. Widespread in the warmer parts of Africa from W. Africa to Ethiopia and South Africa (KwaZulu-Natal); also on Madagascar and Réunion. 

**Source.** Hilliard (1977); *F.T.E.A. Compositae* (3) (unpublished ms.).

**Malawi.** Nyika National Park, without localities or collecting details (Mill 1979; Patel 1999). 

**Craspeditopsis rubens** (Jacq.) S.Moore var. _sarcobasis_ (DC.) C.Jeffrey & Beentje. 

_Gynura sarcobasis_ DC.; _Craspeditopsis sarcobasis_ (DC.) S.Moore. 

Plants of the Nyika Plateau 89
Crassocephalum montuosum
Del. Sandie Burrows

Crepis newii subsp. newii
Del. Eleanor Catherine

Dewildemania stenophylla
Del. Sandie Burrows

Dichrocephala chrysanthemifolia var. chrysanthemifolia
Del. Sandie Burrows
Leaves usually rather broadly 2–8-lobed; capitula 1–12; involucre cylindri-
cal, 8–12 mm long; disc florets purple, mauve, magenta or pink, very rarely
blue.
Source. Patel (1999); Mill (1979); F.T.E.A. Compositae (3) (unpublished ms.).
Malawi. Nyika National Park, Chelinda Bridge, 2000, Salubeni &
Mqwanimia 6777 (MAL); between viewpoint and Chisanga Falls, 10° 32'
31'S, 33° 41' 02"E, 2000, Koekemoer 1726 (PRE); Southern Circular route
at Chelinda Bridge, 10° 40' 15'S, 33° 51' 21"E, 2000, Koekemoer 1779 (PRE).

Crasocephalum uvens (Henn) S.Moore
Senecio uvens Henn.; Senecio telmatophyllus O.Hoffm.; Senecio
kimbilensis Matfr.
Perennial herb with short rhizome, lower part of stem creeping, but be-
coming erect and 0.2–0.65 m high; leaves sessile, oblanceolate, 10–70 x 2–
12 mm, attenuate to an excurvate base; capitula solitary, long-stalked;
disc florets orange-yellow or orange, corolla7.5–11 mm long; achenes 3–
4 mm long, glabrous; pappus 6.5–10 mm long; in marshy or riverine grass-
Source. F.T.E.A. Compositae (3) (unpublished ms.).
Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Crasocephalum vitellinum (Benth.) S.Moore
Gynura vitellina Benth.; Gynura aurantiaca Benth.
Annual or perennial herb 0.3–1.5(–3.5) mm; leaves sessile, ovate to broadly
ovate, elliptic or obovate, 30–125 x 15–70 mm, margins sinuate-serrate;
capitula solitary or up to 3, discoid, long-stalked; disc florets orange or orange-
yellow; achenes 2 mm long, ribbed, shortly hairy; pappus 6–9 mm long; on
forest margins and clearings, grassland, and bush land, occasionally in
swamps. Kenya, Uganda, Tanzania, Nigeria, Cameroon, Bioko, D.R.C.,
Rwanda, Burundi, and Zambia.
Source. Brummitt (1973); Mill (1979); F.T.E.A. Compositae (3) (unpublished ms.).
Malawi. Nyika National Park, 8 km E. of Nganda, 1972, Brummitt, Munthali &
Syngue 159 (K, MAL, SRGH, LISC, EA); at 2nd trout dam on the way to
Chelinda Bridge, 10° 35' 46"S, 33° 48' 25"E, 2000, Koekemoer 1793 (PRE);
wall of trout dam near Chelinda Camp, 10° 35' 20"S, 33° 48' 41"E, 2000,
Koekemoer 1696 (PRE).

Crepis hypochaeridea (DC.) Thell.
An erect perennial herb up to 0.5 m high, flowering stalks one to several;
leaves numerous, mostly radical in a rosette, up to 100 x 15 mm; capitula
solitary; corollas yellow, ligules strap-shaped; pappus of barbellate setae; a
weedy an-
**Dicoma anomala subsp. anomala**  
Del. Sandie Burrows

**Eclipta prostrata**  
Del. Sandie Burrows

**Elephantopus scaber subsp. plurisetus**  
Del. Margaret Tebbs

**Erigeron karvinskianus**  
Del. Sandie Burrows

**Emilia integrifolia**  
Del. Sandie Burrows
**Dicoma sessiliflora** Harv.

Slender erect perennial to 1 m high from a woody rootstock; stems annual, usually solitary, with largest leaves somewhat clustered on the lower stem; leaves discolorous, sessile, 120–270 x (15–20)–60 mm; capitula few to numerous, spike-like, 1–2 sessile in upper leaf axils; involucres mostly 20–30 x 16–30 mm; phyllaries numerous, stiffly chartaceous, 6–30 mm long, long-pungent acuminate above; corollas yellowish, ca 10 mm long; in miombo and mixed deciduous woodland, as well as wooded grasslands.

**Source.** Brunnett (1973); Mill (1979); Patel & Overton (2002).

**Malawi.** Nyika Plateau, Mutha Hill, 2000, Thera 3110 (LMA); path between viewpoint and Chisanga Falls, Malawi.

**Emilia coccinea** (L.) L.  

**Verbena prostrata** L.; **Verbena alba** L.; **Eclipta alba** (L.) Hassk.

Erect or decumbent annual or biennial herb to 0.9 m high, sometimes sprawling or mat-forming; leaves shortly petiolate, leaves narrowly elliptic or elliptic, 20–120 x 3–30 mm, base tapering, margin serrate or serrate-crenate; capitula hemispheric, stalked, up to 12 mm diameter; ray florets inconspicuous, white, lamina ca 2 mm long; disc florets white; occurring naturally around pans and flood plains, preferring damp or swampy situations, often a weed of irrigation schemes. A cosmopolitan weed of the warmer regions of the world.

**Source.** Wild (1967: 59).

**Malawi.** Nyika, 1903, McClounie 55 (K).

**Elephantopus scaber** L. subsp. **plurisetus** (O.Hoffm.) Phillipson var. **plurisetus** O.Hoffm.  

**Elephantopus weletetschi** Hiern

Plants not robust, to 1.3 m high; basal leaves 70–620 x 15–100 mm, cauleine leaves smaller; capitula solitary, with largest leaves somewhat clustered on the lower stem; leaves discolorous, sessile, 70–400 x 30–160 mm, 3-veined from base; petiolate, membranous, ovate 15–40 mm, 3-veined from base; peti-ole to 15 mm long; capitula in few-headed cymes; ray florets white, 4–5 mm long, hairy; pappus 7–9 mm long; in grassland, burnt grassland, roadsides, cultivation. Malawi, Tanzania, D.R.C., and Zambia.

**Source.** F.T.E.A. Compositae (3) (unpublished ms.).

**Malawi.** Nyika National Park, without localities or collecting details (Mill 1979, Patel 1999).

**Emilia integrifolia** Baker  

**Erigeron karvinskianus** DC.

Perennial herb, 0.3–0.75 m long, procumbent and forming interlaced mats, with erect flowering branches; leaves alternate or in axillary fascicles, proximal leaves with 3–5 lobes, distal leaves elliptic, 5–40 x 3–16 mm, 3-nerved from the base; capitula 7–8 mm long, solitary or up to 5 in a lax panicle; ray florets 1-seriate, rays white above, pink beneath, 5–6 x 0.5–1 mm; disc florets yellowish, 2 mm; achenes 2.5–3.5 mm long, hairy; pappus of few caducous setae; discoid; florets yellow or orange; achenes 4–5.5 mm long, hairy; pappus 7.5–9 mm long; in grassland, burnt grassland, roadside, cultivation. Malawi, Tanzania, D.R.C., and Zambia.

**Source.** F.T.E.A. Compositae (3) (unpublished ms.).

**Malawi.** Nyika National Park, without localities or collecting details (Mill 1979, Patel 1999).

**Emilia homochroma** S.Moore  

**Erythrocephalum zambesianum** Oliv. & Hiern  

**Erythrocephalum zambesianum** var. **angustifolium** S.Moore; **Erythrocephalum massace** Wild

An erect suffrutex 0.12–0.8 m high, from a woody rootstock; stems annual, usually solitary; leaves discoloured, sessile, 70–220 x 15–75 mm, elliptic to lanceolate, margins sharply serrulate, upper surface green, thinly araneose; capitula usually solitary; ray florets deep-red, rays to 12 x 2.5 mm, pappus of few caducous setae; disc florets deep-red, 8–14 mm long; in miombo woodland and open grassland. Mozambique, Tanzania, and D.R.C.

**Source.** Mill (1979): Flora zambesiaca 6(1): 188 (1992); Patel (1999); Mill (1979); F.T.E.A. Compositae (3) (unpublished ms.).

**Malawi.** Nyika National Park, wall of trout dam near Chelinda Bridge, 10° 35’ 46” S, 33° 48’ 25” E, 2000, Koekemoer 1794 (PRE).

**Erythrocephalum americanum** Oliv. & Hiern  

An erect suffrutex 0.3–0.7 m high, from a woody rootstock; stems annual, usually solitary; leaves discoloured, sessile, 70–220 x 15–75 mm, elliptic to lanceolate, margins sharply serrulate, upper surface green, thinly araneose; capitula usually solitary; ray florets deep-red, rays to 12 x 2.5 mm, pappus of few caducous setae; disc florets deep-red, 8–14 mm long; in miombo woodland and open grassland. Mozambique, Tanzania, and D.R.C.


**Malawi.** Nyika National Park, path between viewpoint and Chisanga Falls, 10° 32’ 31” S, 33° 41’ 07” E, 2000, Koekemoer 1708 (PRE); Mwanda Moun-tain slope, 2000, Willis 182 (PRE).

**Felicia boehmii** O.Hoffm.  

**Felicia homochroma** S.Moore; **Felicia boehmii** O.Hoffm. subsp. **homochroma** (S.Moore) Grau

Erect annual herb, 0.1–0.75 m high; leaves opposite proximally, alternate distally, linear to lanceolate, 10–60 x 1–14 mm; capitula 5–12 mm long; involucral bracts thinly hairy; ray florets yellow to orange, ca 30, ray 4–13 x 0.7–3 mm; disc florets yellow to orange, tube 3–3.8 mm long; in grassland, woodland, on sandy or rocky soils. Malawi, Zambia, Nigeria, Cameroon, D.R.C., and Tanzania.


**Galinsoga parviflora** Cav.  

**Adventina parviflora** Raf.

Annual herb up to 0.1–0.75 m high, erect, spreading or decumbent; leaves petiolate, membranous, ovate 15–70 x 8–40 mm, 3-veined from base; petiole to 15 mm long; capitula in few-headed cymes; ray florets white, 4–5,
94 Plants of the Nyika Plateau

**Erythrocephalum zambesianum**
Del. Eleanor Catherine

**Felicia boehmii**
Del. Sandie Burrows

**Gazania krebsiana subsp. serrulata**
Del. Victoria Goaman

**Galinsoga parviflora**
Del. Sandie Burrows

**Gerbera viridifolia**
Del. Eleanor Catherine
ray broadly ovate, 0.8–1.2 mm long, 3-lobed; disc florets yellow; achenes 1.2–2 mm long, puberulous; pappus of about 15 ovate laciniate scales 1–1.5 mm long; a weed in gardens and waste places. Native to S. America. Source. F.T.E.A. Compositae (3) (unpublished ms.).

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Gazania krebsiana Less. subsp. serrulata (DC.) Roessler Gazania oxylopha DC.; Gazania linearifolia DC. Perennial herb to 0.2 m high; leaves pinnatifid or entire; flowers yellow or white with green, brown or purple veins below, disc florets yellow; in grassland and seasonal swamps (marshes or dambos) from low to high altitudes; flowering October to July. Widespread in central and southern Africa. Source. Patel (1999); Brummitt (1972); Mill (1979); Wild (1967: 12); F.T.E.A. Compositae (3) (unpublished ms.).


Gynura scandens O.Hoffm. Crassocephalum scandens (O.Hoffm.) H.;&; Crassocephalum ruizvorenzien S.Moore Climbing herb, 1.5–12 m long, slightly fleshy with unpleasant smell; leaves ovate or triangular, 25–120 x 15–80 mm, margin denticulate to dentate; capitula several to many in terminal corymb; florets orange or rarely yellow, 10–16 mm long; achenes 4.5 mm long, hairy in the grooves; pappus white, 8–11 mm long; on forest margins and in clearings, also in secondary forest and riverine forest. Kenya, Uganda, Tanzania, D.R.C., Rwanda, Burundi, Angola, Zambia, and Malawi. Source. F.T.E.A. Compositae (3) (unpublished ms.).


Haplocarpha scaposa Harv. Haplocarpha thunbergii DC.; Archotis scaposa (Harv.) O.Hoffm. A scapose perennial herb from a woody rootstock; leaves up to 12, rosulate, 50–200 x 15–60 mm, elliptic to oblanceolate, midrib composed of 5–7 distinct veins; upper surface finely pilose, lower surface densely white-felted; involucres 12–23 x 8–13 mm, broadly cupuliform; rays yellow, usually erect, 10–21 x 1.5–2.8 mm; a pyrophyte of submontane grassland, miombo and Acacia woodlands bordering dambos, or on floodplains, often in black clay soils, flowering soon after fires. Central and southern Africa. Source. Patel (1999); Mill (1979); Flora zambesiaca 6(1): 233 (1992).

Malawi. Nyika Plateau, Lake Kaulime, 2,150 m, 1958, Robson & Angus 322 (K).


Helichrysum abietinum O.Hoffm. Helichrysum thunbergii DC.; Archotis thunbergii (Harv.) O.Hoffm. Shrubby 0.3–1.8–(3) m high, much branched, branches densely leafy; leaves dark green above, silvery beneath, spreading, sessile, linear, 5–15 x 0.5–2 mm, margins revolute, sparsely pilose and glandular above, tomentellous and glandular beneath; capitula 3–5 mm long, in terminal compound corymb 20 mm diameter; involucral bracts silvery-green when fresh, drying pale brown with darker apex; florets yellow, 20–30, 1.7–2.3 mm long; in grassland and on river banks. Tanzania, D.R.C., Burundi, and Malawi. Source. F.T.E.A. Compositae (2): 417 (2002).

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Helichrysum brassii Brenan Perennial herb 0.3–0.4 m high; leaves oblongelliptic 15–30 x 3–8 mm, upper surface with short dense glandular indumentum showing 1–2 prominent veins; capitula terminal or 1–3 together; involucres 8–12 mm long; achenes oblong-ellipsoid, 0.5 x 0.3 mm; in open grassland and woodland. Malawi and Mozambique. Brenan (1954) describes three varieties of which he records two for Nyika: var. aggregatum and var. tenellum. For this treatment the varieties are not described separately. This species closely resembles H. sulphureo-fuscum. Source. Patel (1999); Brenan (1954: 472).

Malawi. Nyika National Park, Chosi Viewpoint, 2000, Mtwayambo 478 (MAL); ibid., 2000, Koekemoer 1678 (PRE); Southern Circular route to Chelinda Bridge. 10° 37' 40"S, 33° 48' 21"E; 2000, Koekemoer 1803 (PRE); Nyika Plateau, 1903, McClounie 154 (K).
*Guizotia scabra* subsp. *scabra*
Del. Sandie Burrows

*Gynura scandens*
Del. Sandie Burrows

*Haplocarpha scaposa*
Del. Eleanor Catherine

*Helichrysum kirkii* var. *petersii*
Del. Sandie Burrows
Helichrysum buchananii Engl.

Helichrysum kasseri S.Moore

Perennial herb 0.3–1 m high, with stems from a woody rootstock; leaves greyish green, sessile, oblong to lanceolate, 10–50 x 3–12 mm, base semiamplexical, margins slightly revolute, densely tomentose on both surfaces; capitula 9–12 mm long, solitary or in small groups; involucral bracts shiny golden yellow or brownish; florets yellow to orange, 1.7–2.2 mm long; in grassland and disturbed areas. Tanzania, D.R.C., Zambia, Malawi, Zimbabwe, and South Africa.


Helichrysum hilliardiae Wild

Perennial stoloniferous herb to 0.6 m high, stolons to 200 mm long; stems erect, 2–3, pilose; leaves to 60 x 15 mm, oblong to obovate; capitula to 10 mm diameter, congested terminally; female florets 33–53, hemaphrodite florets 200–500; achenes 0.25 mm long, cylindrical; pappus barbellate; in secondary forest, at stream sides, or in swampy ground. Endemic to Nyika Plateau.


Helichrysum kirkii Oliv. & Hiern var. kirkii

Helichrysum kirkii Oliv. & Hiern var. concolor Engl.; Helichrysum milaniense Britten; Helichrysum luteocephalum Baker; Helichrysum kirkii Oliv. & Hiern var. luteocephalum (Baker) Moeser; Helichrysum petersoni Oliv. & Hiern var. angustifolium Moeser

Perennial herb, 0.3–1.2 m high, one to several erect stems from a vertical woody rhizome, densely leafy; leaves linear, 10–40 x 1–4 mm, overlapping, thinly tomentose and glabrescent above, white-tomentose beneath; capitula 9–16 mm long, solitary or in few-headed cymes, involucral bracts golden yellow or rarely orange yellow; florets yellow or orange-yellow, 2.5–4 mm long; in montane grassland or bushed grassland, often in stony or eroded situations, may be locally common. Kenya, Tanzania, D.R.C., Zambia, Malawi, and Mozambique.


Helichrysum kirkii Oliv. & Hiern var. petersonii (Oliv. & Hiern) Beentje

Helichrysum petersonii Oliv. & Hiern; Helichrysum kundelungense S.Moore; Helichrysum petersonii Oliv. & Hiern var. subglabrae De Wild

Leaves aromatic, lanceolate, 10–50 x 2–10 mm, scabrid above, grey-pubescent or green and sparsely pubescent beneath; capitula in terminal corymbes; involucre pale golden yellow or straw-coloured; in montane grassland and miombo. Tanzania, D.R.C., Angola, Malawi, and Mozambique.


Helichrysum mechinianum Klatt var. ceras (S.Moore)

Beentje

Helichrysum ceras S.Moore; Helichrysum verbascifolium S.Moore; Helichrysum lepidorhizum Moeser; Helichrysum squamosifolium S.Moore

Perennial herb with woolly rootstock; flowering shoots 0.2–0.5 m high; radical leaves 1–2; cauline leaves 15–30 x 2–8 mm, villous to subglabrous above, tomentose beneath; capitula 5–8 mm long, in dense glochidiates united in a fairly dense terminal globose corymb 40–90 mm diameter; involucr brown or golden-yellow; sometimes with a reddish tinge; florets yellow, 6–14, 3–5 mm long; in burned areas in grassland or wooded grassland. Tanzania, D.R.C., Rwanda, Burundi, Zambia, Malawi, and Zimbabwe.


Malawi. Nyika Plateau, 1903, Henderson s.n. (BM).
Helichrysum meadowianum Klatt var. vernonioides (Wild) Beentje

*Helichrysum vernonioides* Wild.

Flowering shoots 0.15–0.3 m high, radical leaves several, glabrous or nearly so; sparsely glandular; cauline leaves similarly glabrous and glandular; capitula 5–8 mm long, in dense globose terminal cymes 2.5–6 mm in diameter; involucre brownish, with a reddish apex and margins; florets 1.5–30, 3–5 mm long, glandular, but not puberulous; in frequently-burnt submontane grasslands. Also in Zambia and Tanzania.


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**Helichrysum nitens** Oliv. & Heiri subsp. nitens

Perennial herb with rosette of large leaves and a solitary stem 0.2–0.8 m; leaves grey or whitish, sessile, those of rosette ovate to lanceolate, 40–150(–300) x 7–35 mm, densely tomentose on both surfaces, the indumentum sometimes peeling to show the glandular leaf surface; capitula 15–23 mm long in lax terminal cymes; involucre shiny yellow or tinged brown or bronze; florets yellow, 3.7–4.7 mm long; achenes cylindric, 0.9–1.3 mm long; in montane grassland, often among rocks. Tanzania, Angola, Malawi, Mozambique, and Zimbabwe.


Malawi. Nyika National Park, Chosi Point, 2000, Kasakula 194 (LMA, MAL, SRGH); ibid., 2000, Koekemoer 1686 (PRE); Chelinda Dam, 2000, Chapama 192 (MAL); Mpopoti Peak, 2000, Willis & Luhanja 97 (PRE).

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**Helichrysum nudifolium** (L.) Less. var. nudifolium

*Helichrysum leopodum* DC.; *Helichrysum gerberifolium* A.Rich.; *Helichrysum coriaceum* Harv.; *Helichrysum plantagineum* C.H. Wright; *Helichrysum nudifolium* (L.) Less. var. leopodum (DC.) Moeser

Perennial herb with annual stems from a perennial rootstock, 0.1–1.5 m high; rootstock crowned with old fibrous leaf bases; leaves thin to coriaceous, radical leaves elliptic to almost round, up to 50–150(–340) x 10–40(–80) mm, in a loose rosette, mucronate, coriaceous or white-yellow or minutely puberulous; cauline leaves sessile, broad-based and clasping, loosely tomentose; flowers 4–8 mm long, in large corymbose panicles; involucral bracts pale brown or lemon-yellow; in grassland, especially after a burn, often in stony or rocky sites, or on swampy ground, may form large patches. Ethiopia to Angola and South Africa.


Malawi. Nyika National Park, Chosi Viewpoint, 10° 36’ 46”S, 33° 45’ 24”E, 2000, Koekemoer 1667 (PRE); Southern Circular route to Chelinda Bridge, 10° 37’ 40”S, 33° 48’ 21”E, 2000, Koekemoer 1806 (PRE).

**No country given.** 1967, Richards 22477 (UZL).

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**Helichrysum nudifolium** (L.) Less. var. pilosellum (L.f.) Beentje

*Helichrysum pilosellum* (L.f.) Less.; *Helichrysum latifolium* (Thunb.) Less.

Perennial herb 0.15–0.6 m high; rootstock crowned with old fibrous leaf bases which are brown silky-wooly; stems several to many; leaves narrow to a clasping base, blade mucronate, long-pubescent with coarse hairs or scabrid above; involucre brown; florets yellow or orange, 20–60, tube 2.6–3.5 mm long; in regularly-burned grassland. Kenya, Uganda, Tanzania, D.R.C., Zambia, Malawi, Mozambique, Zimbabwe, and South Africa.

**Source.** Patel (1999); F.T.E.A. Compositae (2): 423 (2002); H. Beentje, pers. comm.

Malawi. Nyika National Park, 2 km N.W. of Lake Kaulime, 1970, Brummitt 11929 (K); Nyika Plateau, Majimbila Road, 1975, Pawek 10302 (K).

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**Helichrysum orodatissimum** (L.) Sweet

*Helichrysum rosmarinum* Mattt.; *Helichrysum engleri* O.Hoffm.

Decumbent and erect perennial herb or woody herb, 0.3–1.2 m high, sometimes scrambling to 2 m; stems glandular, thinly white- or grey-lanate, often winged; leaves smelling of curry, linear to lanceolate, 5–60 x 2–15 mm, greyish white woolly on lower surface, aromatic; heads in dense or loose flattened or rounded, terminal cymose clusters; capitula 3–5 mm long; flowers yellow, 2.2–2.4 mm long; outer involucral bracts pale brown, inner bright or pale canary-yellow; on grassy or rocky slopes, colonize bare areas e.g. roadsides, forest margins. Kenya, Uganda, Tanzania, D.R.C., Zimbabwe, Malawi, Mozambique, and South Africa.


**No country given.** 1962, Fanashwe 7372 (UZL).

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**Helichrysum patulifolium** Baker

*Helichrysum giorgii* De Wild.; *Helichrysum flammiceps* Brenan

Perennial herb or shrublet, 0.6–1.2 m high, with several stems from a woody rootstock; stems pale reddish brown, white-pubescent, with some glandular hairs, densely leafy; leaves linear, spreading or recurved, sessile, 5–28 x 1–3 mm, with glandular hairs above, white-tomentose beneath, margins revolute; capitula 7–11 mm long, many together in leafy corymb; involucral bracts shiny yellow or orange, margins often erose; florets yellow or orange, 2–3.5 mm long; in montane grassland, on steep slopes or ridge crests. Tanzania, D.R.C., Zambia, and Malawi.

**Source.** Patel (1999); Brummitt (1972); Mill (1979); F.T.E.A. Compositae (2): 428 (2002).

Malawi. Nyika Plateau, 1946, Brass 17218 (K, BM, MO, SRGH); W. foot of Ngunda, 1972, Brummitt, Munthali & Synge 42 (K, MAL, SRGH, LISC, EA); between Chelinda Camp and Dembero River crossing, 10° 31’ 54”S, 33° 50’ 47”E, 2000, Koekemoer 1770 (PRE).

**No country given.** 1967, Richards 22672 (UZL).

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**Helichrysum pawekiae** Wild

Perennial herb to 0.8 m high; leaves sessile, 90 x 15 mm, elliptic-oblong; capitula 3 mm diameter in dense terminal corymb; florets 15, 3 mm long; achenes 0.5 mm long; pappus numerous; in miombo woodland, montane grassland or forest edges. Apparently confined to northern Malawi. Closely related to *H. nudifolium* (L.) Less.

**Source.** Wild (1983: 195); H. Beentje, pers. comm.

Malawi. Nyika National Park, lower Monde R., 1972, Synge 282 (K); 0.5 miles S. of Chelinda, 1977, Phillips 2306 (K).

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**Helichrysum quartinianum** A.Rich.

*Helichrysum antunesii* Volk & O.Hoffm.

Perennial herb with several stems from a thick rootstock, 0.2–0.6 m high; leaves pale grey-green, sessile, elliptic to lanceolate, 20–110 x 4–20 mm, grey- or whitish-tomentose on both surfaces, 3–5-veined; capitula 8–11 mm long, in dense subglobose glomerules; involucral bracts shiny white or cream, radiating; florets yellow or orange, 47–90, 4.5–5.5 mm long; in grassland or wooded grassland, especially areas that is regularly burned. Widespread in tropical Africa.


Malawi. Nyika National Park, without locality or collecting details (Patek 1999).

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**Helichrysum setosum** Harv.

Perennial herb or shrub 0.2–1.5 m high, densely branched, viscid and aromatic; leaves sessile, lanceolate 20–75 x 5–20 mm, smaller upwards, both surfaces and margins glandular-setose, margins and midline above sometimes woolly; capitula 8–12(–14) mm long, depressed-globose, solitary at tips of long leafy branchlets corymbose arranged; involucral bracts golden yellow, spreading; florets yellow or orange, several hundred, 2.2–3.3 mm long; in montane grassland. Kenya, Uganda, Tanzania, D.R.C., Rwanda, Burundi, Zambia, and Zimbabwe.


Malawi. Nyika National Park, Dembero Bridge, 2000, Thera 3014 (MAL); without locality or collecting details (Mill 1979).

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**Helichrysum splendidum** (Thunb.) Less.

*Gnaphalium splendidum* Thunb.; *Helichrysum alyssonicum* (Sch.Bip.) A.Rich.; *Helichrysum hendersoanum* S.Moore

Plants of the Nyika Plateau
Woody virgate herb or shrublet 0.1–1.5 m high; leaves silvery-grey, sessile, linear to lanceolate, 10–30–(40) x 1–2–(6) mm, margins revolute, upper surface thickly or thinly greyish woolly or glabrous, lower greyish woolly; involucre bright canary-yellow; rarely orange; heads hemispherical, many in congested or open corymbose panicles; capitula 4–6 mm long; flowers yellow, 40–55–(105); 2.1–3 mm long; among rocks and in crevices at high altitudes, rocky places, on forest margins, in stream gullies, and on mountain tops. Tanzania, Sudan, Ethiopia, Malawi, Zambia, Zimbabwe, and South Africa.


Malawi. Nyika National Park, without localities or collecting details (Mill 1979, Patel 1999); Nyika Plateau, 1903, Henderson s.n. (BM) [type of H. hendersonae].

No country given. 1967, Richards 22441 (UZL).

**Helichrysum sulphuro-fuscum** Baker

Perennial herb with stems to 0.5 m high from a woody rootstock; leaves green above, whitish beneath, sessile, linear, rosette leaves 30–70 x 2–4 mm; capitula 11–20 mm long; involucre pale orange-yellow with blackish green or dark brown tips; florets yellow, 1.6–2.4 mm long; in montane grassland. Tanzania, D.R.C., Malawi, Mozambique, and Zimbabwe.


**Helichrysum tillandsiifolium** O.Hoffm. ●

*Helichrysum chamæthamnos* Matt.  Penn. perennial; stems becoming 1 m in diameter, flowering stems to 100–200 mm high; leaves silvery-grey beneath, sessile, linear, 10–35 x 1–3 mm; capitula 3.5–6 mm long, 10–20–(30) together in terminal corymbs; involucral bracts pale brown; florets yellow, 40–55, 2.3–3 mm long; achenes cylindrical, 0.5–0.9 mm long, glabrous; pappus white, 2.5–3.5 mm long, caducous in groups; on rocky outcrops in montane grassland. Tanzania, D.R.C., Rwanda, Burundi, and Malawi.


**Helichrysum tithonioides** Wild

Perennial herb to 0.3 m high; stems decumbent; leaves to 40 x 3 mm; capitula 15 mm diameter, solitary or 2–4 together, peduncles swollen; florets yellow, 2.8–3 mm long; cypsela brown, ellipsoid, 0.7 mm long, pilose; in marshy ground. Endemic to the Nyika Plateau. This species appears to be unique in that the acroclinally swollen peduncles are not found in any other species of the genus.


**Hiricipedium angustifolium** (O.Hoffm.) Roessl. ●

*Gazania angustifolia* O.Hoffm. Tufted perennial herb 0.03–0.3 m high, from a small rootstock; stems annual, 1–3, purplish, usually simple; main leaves basally crowded, 100–300 mm long, filiform-linear; upper surface sparsely scabrid to glabrous lower surface araceno-lanate; capitula solitary and terminal, involucre 5–10 mm diameter, connate (3) x 7–4 x 7 mm; rays 15–20 mm long, yellow, often brown or purplish outside; disc florets yellow, 4.5–5.5 mm long; a pyrophyte in burned, seasonally flooded grassland. Malawi, D.R.C., Tanzania, and Zambia.


**Hypericophyllum compositarum** Steetz ●

*Jaumea compositarum* (Steetz) Benth. & Hook.; *Jaumea johnstonii* Baker Erect perennial up to 1.2 (–2.4) m high; leaves sessile or nearly so, simple, opposite, 10–180 x 10–60 mm, margins entire or undulate; inflorescence cymose; capitula 3–21; florets bright orange-red or red, corolla 10–12 mm long; an infrequent plant of miombo woodland, usually on rocky granite outcrops or escarpments. Malawi, Zambia, Zimbabwe, Mozambique, and Tanzania.


**Inula glomerata** Oliv. & Hiern

*Inula clessensi* De Wild.; *Inula acerata* S.Moore

Robust perennial herb up to 1.5 m high; basal leaves in a rosette, 300–600 x 120–320 mm, petiolate, petiole to 220 mm long, leaves ovate, denticulate, tomentose; capitula 8–12 mm long, heterogamous, several in dense glomerules 20–40 mm in diameter, glomerules arranged in large leafy panicles; florets yellow, all tubular; in miombo woodland, wooded grassland, grassy mountainsides. Kenya to Angola and South Africa.


**Inula mannii** (Hook.f.) Oliv. & Hiern

*Vernonia mannii* Hook.f.; *Laggera heteromorpha* Vatke; *Vernonia nyiroitica* Baker

Perennial herb with basal leaf rosette; flowering branches one to several, 0.9–3 mm high; basal leaves ovate or elliptic, aromatic, 350–900 x 120–200 mm, short-petiolate, margins dentate, both surfaces tomentose; capitula 8–13 mm long, heterogamous, in dense terminal, leafy corymbs; florets dull red or purplish, 3.6–5.7 mm long, glabrous; achenes cylindric, 1.2–2 mm long, glabrous; pappus 3.4–5.5 mm long; in forest margins, montane scrubland. Kenya, Uganda, Tanzania, Cameroon, D.R.C., Rwanda, Ethiopia, and Malawi.


**Inula paniculata** (Klatt) Burt Davy ●


Perennial herb with basal leaf rosette, flowering stem 0.6–2.4 m high; basal leaves elliptic or oblanceolate, 300 mm x 70–125 mm, petiolate, petiole 50–100 mm long, margins coarsely dentate, both surfaces tomentose; capitula 5–9 mm long, heterogamous, in dense terminal corymbs or panicles; florets yellow, 3.4–4 mm long, glabrous; in grassland in marshy areas; flowering October to January. W. Africa to Ethiopia and southwards to South Africa.


**Inula shirensis** Oliv.

*Bojiera vestita* Baker; *Inula bakeriana* O.Hoffm.; *Erythrocephalum erectum* Klatt

Perennial herb with large basal leaves and a flowering stem 0.3–1.5 m high; basal leaves 150–450 x 70–260 mm, petiolate, petiole to 100 mm long, margins sinuate-crenate, pilose on both sides; capitula 22–40 mm long, heterogamous, solitary or up to 4 in a corymb; florets glandular, rays florets bright yellow, ray 8–14 x 1.5–2 mm; inner florets cylindric, 7.7–5.5 mm long; in miombo woodland and veld. Tanzania, D.R.C., Burundi, Zambia, Malawi, and Mozambique.


**Lactuca calophylla** C.Jeffrey

A subscape perennial herb to 0.75 m high; leaves 1–6 in a basal rosette; inflorescence up to 0.25 m long; capitula numerous; florets 4–6 per capitulum, corollas yellow; ligule 9–12 x 2.5–4 mm; achenes reddish brown, not beaked, 4.5–5.5 mm long; pappus numerous, barbellate; a pyrophyte, locally frequent in montane grassland and high-rainfall woodland. Malawi,
Acaulescent cushion-like perennial herb up to 1 m high, or a small caespitose acaulescent perennial herb rarely more than 0.7 m high; root crown very densely brown sericeous-lanate with hairs ca 20 mm long; leaves radical, appearing after flowering, ca 90–250 mm long, oblanceolate; capitula few to numerous, densely aggregate, to 100 mm diameter; corollas ca 16 mm long; rays yellow, sometimes becoming reddish-purple outside, ca 10 mm long; a pyrophyte of montane grassland, high-rainfall woodland or seasonally waterlogged grassland (dambos), flowering after fire. Widespread in tropical Africa.


Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Lactuca lasiorhiza (O.Hoffm.) C.Jeffrey

Sonchus lasiorhizus O.Hoffm.; Sonchus quercifolius Phillipson

An acaulescent perennial herb more rarely than 0.7 m high; root crown very densely brown sericeous-lanate with hairs ca 20 mm long; leaves radical, appearing after flowering, ca 90–250 mm long, oblanceolate; capitula few to numerous, densely aggregate; corollas ca 16 mm long; rays yellow, sometimes becoming reddish-purple outside, ca 10 mm long; a pyrophyte of montane grassland, high-rainfall woodland or seasonally waterlogged grassland (dambos), flowering after fire. Widespread in tropical Africa.


Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Lactuca paradoxa Sch.Bip.

A scandent diffuse short-lived perennial herb up to 2 m high with stems up to 5 m long; leaves imparipinnately compound, up to 145 x 80 mm, narrowly oblanceolate to spathulate, margins ciliate-dentate; capitula numerous, in panicles, densely aggregate, 20–25-flowered; leaves appearing after flowering, sessile, 10 x 25 mm; florets 5 per capitulum, ligule yellow, often purplish outside, to 6 x 1.5 mm; in montane evergreen forests and grassland, often as pioneer in disturbed areas. Known from southern Malawi and Mozambique northwards to W. Africa and Ethiopia. Not recorded for Nyika in Flora zambesiaca.


Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Lepidochloa dolichopappa (O.Hoffm.) S.Moore

Lepidochloa pensicola Thell.; Lactuca brevipes Phillips & C.A.Sm. Shrubs 0.3–0.6 m high from a perennial woody rootstock, semi-succulent; leaves sessile, narrowly oblanceolate to spathulate 15–30 mm long; capitula discoid, numerous, peduncles of individual capitula 12–70 mm long; florets 3–4, white or sometimes tinged lilac, exserted and exceeding the pappus at anthesis, anthers purple; in upland grassland where it may become common after burning. Tanzania, Zambia, and Malawi.

Source. F.T.E.A. Compositae (3) (unpublished ms.).

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Lagenaria crispata (Vahl.) Hepper & J.R.I.Wood

Coryza crispata Vahl.; Laggera alata sensu auct. non (D.Don) Oliv. Annual or perennial herb, 0.6–2.4 m, several stemmed, stems with entire or toothed wings to 5–15 mm wide, densely glandular, plants viscid and aromatic; leaves often tinged purple, sessile, oblong to obovate, 30–270 x 8–110 mm decreasing in size distally, margins serrate; capitula 8–12 mm long, in panicles; florets pink, mauve or purple, outer florets 5–7 mm long, anthers pink; in waste ground, roadsides, stream-sides, woodland, grassland. Throughout tropical Africa and tropical Asia.


Louanae nana (Baker) Chiov.

Lactuca nana Baker; Sonchus namus O.Hoffm. Acaulescent, cushion-like perennial herb; leaves 2–6, in rosettes, glabrous, up to 200 x 60 mm, sinuate-dentate to pinnately-lobed; capitula numerous, densely aggregate, 20–25-flowered; corollas yellow, 10–15 mm long, ligule becoming purplish-brown, 4–5 mm long; a pyrophyte of grassland and open miombo woodland; flowering August to November. Widespread in sub-Saharan Africa.


Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Loxanthera albinervia O.Hoffm.

Aspilia zambesiaca Baker; Aspilia eylesi S.Moore

Bushy perennial to 1 m high; branches square; leaves sessile or petiolate, to 120 x 40 mm, narrowly ovate to ovate or oblong to elliptic, scabrid; capitula orange or yellow, solitary at the end of long peduncles or in lax corymb; peduncles to 120 mm long; receptacular paleae mucronate or acute, ca 1.7 mm long; ray florets to 20, ligule 6–11 mm long, 3-dentate at the apex; disc florets to 5 mm long; in savanna woodlands and woodlands. Caprivi Strip, Zambia, Zimbabwe, Malawi, Mozambique, Angola, Tanzania, and South Africa.


Microglossa densiflora Hook.f.

Microglossa longiradiata Wild.

Scandent shrub 2–6 m long, or climber over trees to 7 m or more; leaves...
**Laggera brevipes**
Del. Sandie Burrows

**Launaea rarifolia var. rarifolia**
Del. Sandie Burrows

**Lopholaena dolichopappa**
Del. Sandie Burrows

**Melanthera albinervia**
Del. Sandie Burrows

**Microglossa pyrifolia**
Del. Sandie Burrows
clearing. Uganda, Kenya, Tanzania, Cameroon, Bioko, D.R.C., Rwanda, Burundi, Zambia, Malawi.


Zambia. Nyika Plateau, without locality, 1958, Robson & Angus 185 (BM, K, LISC, PRE, SRGH); ibid., 1958, Robson & Angus 350 (BM, K, LISC, PRE, SRGH, UZL); Chowo Forest, 1967, Richards 22537 (K).

Microglossa pyrifolia (Lam.) O.Kuntze

Conyza pyrifolia Lam.; Conyza volubilis Wall.; Microglossa volubilis DC.; Conyza beadeloi Oliv. & Hiern

Climber, scented shrub or small shrub to 6 m high; leaves ovate, 25–100 x 15–70 mm, slightly discolorous, petiolate, petiole 8–20 mm long; inflorescence of dense corymb or subcorymbose cyme 50–200 mm wide; capitula 4–5 x 3–5 mm, in cymes of up to 24 and inflorescences of up to 1200 capitula; ray florets white, cream or pale yellow, ca 32, tube 1.8–2.6 mm long, ray filiform, 0.9–1.4 x <0.2 mm; disc florets cream or pale yellow, 3–6; climber or shrub in forest or at forest edges, in abandoned cultivation, wooded grassland, and streamsides. Widespread in tropical Africa southwards to Angola and Mozambique; also in Madagascar and tropical Asia.


Nidorella auriculata DC.

Nidorella obovata DC.; Nidorella auriculata DC. subsp. polycephalæ (DC.) Wild

Perennial herb 0.9–1.5 m high, with a single stem or several stems from a thickened rootstock; leaves sessile, narrowly panduriform to lanceolate, 40–80 x 10–20 mm, pubescent; capitula 3–8 mm long, several to many in dense globose cymes; axes of inflorescence white-pubescent and glabular; ray florets ca 40, golden-yellow, tube 1.1–1.2 mm long; disc florets ca 15, golden-yellow, tube 1.4–1.7 mm long; in disturbed areas, grassy slopes, marshy places or forest margins; flowering July–June. Widespread in tropical and southern Africa.


Nidorella resedifolia DC.

Nidorella rapunculoides DC.; Nidorella pinnatiolobata DC.

Annual herb 0.3–1 m high; leaves pale green, narrowly obovate, 15–100 x 2–30 mm; capitula 2.5–5 mm long, united in lax corymbs or cymes; ray florets yellow, 40–58, ray 0.4–0.5 mm long and about as wide; disc florets yellow, 9–20, tube 1.3–1.5 mm long; achenes ellipsoid, 0.7–1.1 mm long, pubescent; pappus of 11–15 barbellate setae 1.5–2.0 mm long. Cultivated land and waste places such as roadsides. Kenya, Tanzania, D.R.C., Angola, Zambia, Malawi, Mozambique, Zimbabwe, Botswana, and South Africa.


No country given. 1967, Richards 22431 (UZL).

Nidorella spartioidei (O.Hoffm.) Cronquist

Conyza spartioidea O.Hoffm.; Nidorella madisona Baker

Erect perennial herb with numerous stems from a woody rootstock, 0.3–0.9 m high; leaves not aromatic, sessile, linear to narrowly ovate, 5–40 x 1–14 mm; inflorescence of dense subglobose cymes; capitula 3–5 mm long, 2–8 together in subcorymbose cymes; marginal florets yellow, 30–40, tube 1.4–1.7 mm long, 4–5-lobed; disc florets yellow, 22–40, tube 2.1–2.5 mm, pilosulous-plise outside; achenes ellipsoid, 0.8–1.2 mm long, pubescent; pappus of 15–25 barbellate to subplumose setae; in submontane grassland and regularly burnt woodland. Malawi, Zambia, and Angola northwards to Nigeria, Sudan, and Kenya.


Osteospermum monocephalum (Oliv. & Hiern) T.Norl.

Triptéria monocephala Oliv. & Hiern; Triptérie rhodesica R.F.C.; Triptéría guevariense Mart.

Perennial herb, 0.05–0.7 m high, stems 1–several from an underground stem; stems sticky; leaves distant, obovate, 20–70 x 2–30 mm, glandular-hairy; capitula 5–8 mm long, sweetly-scented at anthesis, nodding in fruit; ray florets 12–18, ray 12–24 x 3–5 mm, yellow to orange; disc florets numerous, up to 10 mm long, yellow; achenes 13–20 mm long, 3-angular, 3-winged, pale yellow turning crimson or purple; a pyrophyte in annually burned grassland on rocky hillsides. Malawi, Burundi, and Tanzania to Angola and Zimbabwe.


Osteospermum nyikensis T.Norl.

Sulphuricote perennial; stems ascending, to 2 m long, glandular-pubescent; leaves alternate, glandular-pubescent or nearly glabrous, to 60 x 20 mm, margins distinctly toothed, teeth to 5 mm long; capitula arranged in a corymbose inflorescence, fruit-bearing heads nodding; ray florets equal in number to the involucral bracts, ligule yellow, about 4–5 times as long as involucrum; disc florets yellow; cypselas hard, triangular-obovoid, 5–6 mm long, 3-winged, wings half-transparent, 1.1–1.5 mm wide; on rocky slopes with shrub and grass cover; ca 2,000 m. Endemic to the Nyika Plateau.


Malawi. Nyika National Park, Kwozya Hill, 1972, Brummitt & Syngne WC217 (K, holo, MAL, S, SRGH, isotypic); Nyika Plateau, 1896, Whyte 169 R.

Pentanema indicum (L.) Ling

Inula indica L.; Vicosa auriculata Cass.; Inula leptoclada Webb

Annual herb, 0.2–1.5 m high; leaves alternate or subopposite, sessile, narrowly lanceolate, 15–100 x 2–20 mm, margins crenate, glandular-broadly; capitula 5–8 mm long, in lax panicles; phyllaries glandular, becoming reflexed after achene dispersal; florets orange-yellow, tubular, tube 2.8–3.5 mm long; achenes narrowly ellipsoid, 1.1–2.2 mm long; pappus 2–3.5 mm long; a pioneer in drying swampy sites; also a crop weed. From Senegal to Ethiopia and southwards to the Zambezi River; also Pakistan, India, Sri Lanka, and Burma.


Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Pleiotaxis pulcherrima Steetz

Pleiotaxis latissipama S.Moore

An erect suffrutex, 0.2–0.8 m high; stems 1–several, annual; leaves discolorous, lanceolate, 60–240 x 20–70 mm, base sheathing the stem; capitula terminal, solitary or 2–4, 20–35 x 12–20 mm; florets numerous, bright red, to 25 mm long; phyllaries 4–24 mm long; achenes 7–11 mm long, hispid; pappus copious, barbellate, 7–17 mm long; in miombo woodland on rocky hillsides or on sandy soil, and in grassland. Zambia, Malawi, Mozambique, Angola, D.R.C., Rwanda, Burundi, and Tanzania.


*Pseudognaphalium luteo-album (L.) Hilliard & Butt*

Gnaphalium luteo-album L.; Gnaphalium oligandrum (DC.) Hilliard & B.L.Burtt

Decumbent or erect annual herb 0.4–1 m high, all parts whitish-woolly; lower leaves oblanceolate, 10–80 x 3–8 mm, decreasing in size and becoming lanceolate to linear upwards, not discolorous; inflorescences of dense glomerules in large corymbose panicle; capitula 3–5 mm long; outer female florets yellow; > 100, filamentoæus, 1.8–2.3 mm long; disc florets 30–30, 1.5–1.8 mm long; in montane grassland, sandy or clayey soils near streams and marshes, weed of cultivation. Widespread as a weed in the


tropics and subtropics.

**Source.** Mill (1979); Wild (1980: 75); Hilliard (1983: 26); F.T.E.A. Compositae (2: 399 (2002).

**Malawi.** Nyika Plateau, Lake Kaulime, 1958, Robson 319 (K, PRE, SRGH).

**Schistostephium artemisiifolium** Baker **Schistostephium bombile** De Wild.; **Schistostephium microcephalum** Baker

Perennial herb with annual shoots from a horizontal rootstock; shoots several, to 0.9 m high, pubescent; leaves grey-green, pinnatifid, broadly ovate in outline, 10–50 x 2–30 mm, pubescent on both surfaces; capitula 4–6 mm long, in terminal corymbs; florets yellow; outer florets few; tube 1 mm long; inner florets >50, tube 1.3–2 mm long; achenes dorsiventrally flattened, angled or winged, 1.5–6 x 0.8–0.9 mm. Miombo or wooded grassland. Flowering December to July. Tanzania, D.R.C., Zambia, Malawi, Mozambique, and Zimbabwe.

**Source.** Patel (1999); Brummitt (1973); Mill (1979); F.T.E.A. Compositae (2: 526 (2002).

**Malawi.** Nyika National Park, W. slopes of Nganda, 1972, Brummitt & Synge 62 (K, MAL, SRGH, LISC); Zungwara Circular Road, 2000, Thera 3068 (MAL); Jalawe Viewpoint, 10° 21' 41"S, 33° 47' 51"E, 2000, Koekemoer 1862 (PRE).

**Schistostephium mollissimum** Hutch.

**Schistostephium heptalobum** S.Moore (1911), non Oliv. & Hiern (1877)

Slender, lax subshrub to 1.2 m high, all parts thinly hairy; leaves sessile, up to 40 mm long, pinnatisect, lobes in 3 or 4 pairs; capitula small, subglabose, up to about 20 corymbose arranged; flowers bright yellow; on forest margins and in montane scrub. Extra-Malawian distribution uncertain.

**Source.** Mill (1979).

**Malawi.** Nyika National Park, 5 miles S.E. of Chelinda on Kasaramba Rd, 1976, Pasek 11202 (PRE); between Viewpoint and Chisanga Falls, 10° 32' 31"S, 33° 47' 02"E, 2000, Koekemoer 1712 (PRE).

**Senecio erubescens** Aiton

**Senecio sambinatus** Mattf.

Decumbent or erect perennial herb 0.3–0.6 m high, rosette-forming; basal leaves sessile, broadly obovate, 70–210 x 9–700 mm, densely glandular pilose, margins coarsely toothed to denticulate; capitula discoid, 3 to 5 in many in lax terminal corymb; disc florets purple, mauve or rarely yellow; achenes 3–3.7 mm long, hispid between ribs; pappus 6–8.5 mm long; in grassland, often in bogy sites; flowering September–June. Tanzania, D.R.C., Angola, Zambia, Malawi, Zimbabwe, Botswana, Swaziland, and South Africa.

**Source.** F.T.E.A. Compositae (3) (unpublished ms.).

**Malawi.** Nyika National Park, without localities or collecting details (Mill 1979, Patel 1999).

**Senecio hochstetteri** Sch.Bip.

**Senecio lugardiae** De Wild.

Perennial herb 0.25–1.2 m high, rhizomatous, rosette-forming, viscid, stems 1–several from the rosette; basal leaves sessile, narrowly to broadly ovate, 80–380 x 10–100 mm; flowers appearing with or after leaves; capitula discoid, 3 to many in lax terminal corymb; disc florets white, cream or pale yellow, corolla 5–10 mm long; achenes 2.3–3.5 mm long, ribbed, short-hairy; pappus white 3–8 mm long; in grassland, occasionally on forest margins or in wooded grassland. Widespread throughout tropical Africa.


**Malawi.** Nyika National Park, without localities or collecting details (Mill 1979, Patel 1999).

**Senecio inornatus** DC.

**Senecio igodes** Hiern.; **Senecio stolzii** Mattf.

Erect perennial herb 1–2 m high, stems winged in lower part; basal leaves sessile, elliptic-lanceolate, 200–730 x 15–100 mm, gradually attenuate basally, margins denticate; capitula radiate, numerous in a lax or congested terminal corymb; ray florets yellow, corolla tube 2.5–4 mm long, glandular-hairy; disc florets bright yellow, corolla 5–8 mm long; in upland grassland, on forest margins, often abundant near streams. Tanzania, D.R.C., Burundi, Angola, Zambia, Malawi, Zimbabwe, South Africa.

**Source.** Patel (1999); F.T.E.A. Compositae (3) (unpublished ms.).

**Malawi.** Nyika National Park, South Circular Route, 10° 39' 54"S, 33° 45' 06"E, 2000, Koekemoer 1841 (PRE).

**Senecio latifolius** DC.

**Senecio scleratus** Schwein.

Perennial herb to 1 m high; crown and lowest nodes woolly, wool hidden deep in leaf axils; leaves glabrous, uniform; heads radiate, rays 5; involucral bracts 7 or 8, (4–5.5–6.0–7.0) mm long; achenes glabrous; flowers bright yellow; in grassland or open woodland; flowering July–June. South Africa to Malawi and Angola.

**Source.** Hilliard (1977: 486).

**Malawi.** Nyika National Park, without locality or collecting details (Patel 1999).

**Senecio oxyriphius** DC.

**Senecio orbicularis** Sond. ex Harv.; **Senecio pelatus** DC.

Glabrous, sometimes glaucous, fleshy perennial herb, rootstock somewhat creeping, tuberous wood; flowering stems usually one, to 1 m high; leaves fleshy, up to 25–60 x 38–95 mm, petiole 25–80 mm long; capitula discoid, few to many, corymbose-paniculately arranged; disc florets pale to golden yellow; achenes 25–32 mm long; pappus 4.7–5 m long; in grassland to bushed grassland, often in rocky sites. South Africa, Zimbabwe, Malawi, Angola, Zambia, Mozambique, and Tanzania.

**Source.** Hilliard (1977: 473); F.T.E.A. Compositae (3) (unpublished ms.).

**Malawi.** Nyika National Park, without locality or collecting details (Mill 1979).

**Senecio pachyrhizus** O.Hoffm.

**Senecio dekadtianus** Volkens & O.Hoffm.; **Senecio adusta** S.Moore

Dwarf perennial herb with woody rootstock, multi-stemmed forming small cushions 50–160 mm high; leaves all basal, oblong to elliptic, 130–250 x 30–45 mm, long-attenuate into petiolar base, margins crenate-serrate, stem-leaves scale-like; capitula erect, discoid, terminal, usually solitary; disc florets white or cream, anthers fully exerted, corollas 15.5–20 mm long; pyrophytic in upland grassland, flowering about a month after fire, in large clumps or cushion-forming. Uganda, Tanzania, Cameroon, D.R.C., Angola, Zambia, and Malawi.

**Source.** Patel (1999); Brummitt (1973); Mill (1979); F.T.E.A. Compositae (3) (unpublished ms.).

**Malawi.** Nyika National Park, Sawi Valley, 1972, Synge 434 (K, MAL, SRGH).

**Senecio pergamantaceous** Baker

Perennial herb, 600–800 mm high, crown of rootstock woolly; stem leaves sessile, ovate to lanceolate, the median largest, 100–150 x 33–45 mm, margins entire; capitula radiate, numerous in lax corymb; involucre cylindrical, 5.5–6 mm long; ray florets 4–5, yellow, corolla tube 3.5 mm long, rays 8–13 x 2–2.5 mm, 4-veined; disc florets yellow, tube abruptly expanded above the middle; achenes 5 mm long, glabrous, ribbed; pappus 5 mm long, white; in secondary woodland or grassland with Protea. Tanzania, Zambia, and Malawi. This is taxon is essentially *S. semamplexifolius* with rays (F.T.E.A.).

**Source.** Mill (1979); F.T.E.A. Compositae (3) (unpublished ms.).

**Malawi.** Nyika National Park, South Circular Route, 10° 38' 23"S, 33° 45' 46"E, 2000, Koekemoer 1825 (PRE); between Chelinda Bridge and Dembo River crossing, 10° 32' 38"S, 33° 50' 33"E, 2000, Koekemoer 1747 (PRE).

**Senecio ruwenzoriensis** S.Moore

**Senecio idiomorphus** Fourcade; **Senecio pacrifolius** DC.

Perennial herb to 1 m high; leaves somewhat fleshy, glabrous, obovate to almost rhombic, 25–115 x 10–53 mm, with two prominent lateral veins from the base, margins entire or distantly ciliate-denticulate; capitula radiate, 1–20 in lax terminal corymb; rays 5–8, pale to bright yellow, lamina 5–11 x 1.5–3.5 mm, 4-veined; disc florets yellow; in grassland, particularly in shallow soil around rock outcrops, sometimes by streams or as a weed in cultivation. Kenya, Uganda, Tanzania, Nigeria to Sudan, southwards to

Plants of the Nyika Plateau 105
Schistostephium artemisiifolium
Del. Sandie Burrows

Senecio pergamentaceus
Del. Sandie Burrows

Sigesbeckia abyssinica
Del. Sandie Burrows

Solanecio mannii
Del. Sandie Burrows
South Africa.
Source. F.T.E.A. Compositae (3) (unpublished ms.).
Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

**Senecio subsessilis** Oliv. & Hiern
Perennial herb, woody herb or weakly woody shrub 0.45–3.0 m high, stem hairy; leaves tomentose, basal leaves petiolate, to 270 mm wide, upper leaves lanceolate, 110–500 x 30–130 mm; capitula radiate usually in congested to lax corymbiform cyme; ray florets pale to bright yellow, 5–8(–12), rays 6–18 x 2–5 mm, 4–10-veined; disc florets yellow, corolla 6.5–9 mm long; in montane bush land, *Hagenia* woodland or forest, often in clearings. Ethiopia and Sudan to D.R.C. and Tanzania; not recorded from Malawi.
Source. F.T.E.A. Compositae (3) (unpublished ms.).

**Senecio syringifolius** O.Hoffm.
*Senecio nykensis* Baker
Liana twining to 1.5–10 m high, rather succulent, stems to 15 mm in diameter; leaves rather succulent, glossy, triangular, 38–10 x 15–90 mm; capitula discoid, many in usually dense, spreading terminal compound corymb; disc florets ca 20, yellow or creamy yellow, corolla 6.5–9 mm long; achenes 3–4 mm long, ribbed, glabrous; pappus 5–9 mm long; in evergreen forest and on forest margins. Kenya, Uganda, Tanzania, Rwanda, and Malawi.

**Sigesbeckia abyssinica** (Sch.Bip.) Oliv. & Hiern
*Limonogenetum abyssicum* Sch.Bip.
Annual herb to 1 m high; leaves petiolate, up to (80–)100 x 30–40 mm, narrowly ovate to ovate, 3-nerved from the base; florets yellow, usually by streams or in seasonally moist grasslands. Widespread in Central Africa S. of the Sahara.
No country given. 1967. Richards 22452 (UZL).

**Stoebe kilimandscharica** O.Hoffm.
*Stoebe elegonensis* Mattt.
Much branched shrub or tall tree up to 6 m; leaves linear, ericoid, involute, adaxial surface woolly-hairy; florets 4–5 mm long; achenes with 5 ribs; pappus white, dimorphic, 8–10 mm long; in seasonal or permanent wet soil, beside streams, dams or irrigation furrows; often as a ruderal or in cultivated or disturbed ground on roadsides in moist localities. Widespread in Central Africa S. of the Sahara.
Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

**Stomatanthes africanus** (Oliv. & Hiern) R.M.King & H.Rob.
*Eupatorium africanum* Oliv. & Hiern; *Vernonia malosana* Baker
Perennial sub-shrub 0.2–1.2 m high with 1–several stems arising from a woody rootstock 10–35 mm diameter, stems erect, rigid, woody, somewhat branched; leaves alternate to sub-opposite, sessile to shortly petiolate, petiole to 6 mm long, margins often slightly thickened, entire to serrate; capitula 5–14 x 3–6 mm, in dense corymb; florets 4–5, corolla 5–7 mm long, white; a pyrophyte, often found on recently burnt highland grassland; also in woodlands, growing in dense clumps. Widespread throughout Africa.

**Stomatanthes zambiensis** King & Robins.
Plants erect, to 1 m high; stems densely tomentose; leaves membranous, broadly elliptic, 30–70 x 5–15 mm; apex acute; margins serrate; inflorescence in a cyme; capitula 4–5-flowered; achenes with 5 ribs; pappus bristles scabrid. Grassland. Malawi, Zambia.
Source. Patel (1999); King & Robinson (1975).

**Tagetes minuta** L.
Annual herb, 100–2,500 mm high, almost woody; whole plant aromatic; stems much branched in larger plants; leaves mostly opposite, but often alternate in upper part of plants, dark green, pinnatisect, 30–300 x 7–80 mm, glandular with orange glands; capitula many in dense terminal corymbs, narrowly cylindrical; ray florets 2–3, pale yellow to cream, ray 2–3.5 mm long; involucre to 13 mm long; corollas yellow, ligule ca 5.5 mm long, strap-shaped; achenes light to reddish brown, to 3 x 1 mm, with many ribs, ribs minutely mucrate with numerous retrorse projections; a widespread cosmopolitan weed of gardens, irrigation schemes, and roadsides. A native of Eurasia and N. Africa.
Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

**Sonchus oleraceus** L.
A stout erect annual herb ca 0.15 m high; lower leaves crowded, to 280 x 90 mm, usually pinnately lobed; capitula stalked, many in corymbiform cymes; involucre to 13 mm long; corollas yellow, ligule ca 5.5 mm long, strap-shaped; achenes light to reddish brown, to 3 x 1 mm, with many ribs, ribs minutely mucrate with numerous retrorse projections; a widespread cosmopolitan weed of gardens, irrigation schemes, and roadsides. A native of Eurasia and N. Africa.
Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

**Sonchus schweinfurthii** Oliv. & Hiern
An erect robust perennial plant 1–1.5 m high, stems solitary, branching above; leaves ascending, 360 x 60 mm, entire or dentately to pinnately-lobed; capitula solitary or in small clusters; phyllaries olive-green to purplish, imbricate; corollas yellow; ligule 3–4 mm long, strap-shaped, red-dish tinge outside; in seasonal or permanent wet soil, beside streams, dams or irrigation furrows; often as a ruderal or in cultivated or disturbed ground on roadsides in moist localities. Widespread in Central Africa S. of the Sahara.
No country given. 1967. Richards 22452 (UZL).

**Stoebia kilimandscharica** O.Hoffm.
*Stoebia elegonensis* Mattt.
Much branched shrub or tall tree up to 6 m; leaves linear, ericoid, involute, adaxial surface woolly-hairy; florets 4–5 mm long; achenes with 5 ribs; pappus white, dimorphic, 8–10 mm long; in seasonal or permanent wet soil, beside streams, dams or irrigation furrows; often as a ruderal or in cultivated or disturbed ground on roadsides in moist localities. Widespread throughout Africa.
Source. F.T.E.A. Compositae (3) (unpublished ms.);
Malawi. Nyika Plateau, 1896, Whyte 245 (K).

**Solanecio mannii** (Hook.f.) C.Jeffrey
*Crassocephalum mannii* (Hook.f.) Milne-Redd.; *Senecio mannii* Hook.f.
Erect softly woody shrub or small tree 1–8(–10) m high, stems thick and succulent, green with prominent persistent leaf scars, branching dichotomously; leaves crowded towards the apices of branches, obovate or elliptic, 100–550 x 20–160 mm, margins sinuate-serrate; capitula discoid, very numerous in large corymb; disc florets yellow, rarely orange or white, corolla 4.5–8.5 mm long; in forest glades or margins, bush land, and rocky slopes. Throughout tropical Africa from Zimbabwe northwards.
Source. F.T.E.A. Compositae (3) (unpublished ms.).

**Sonchus luxurians** (R.E.Fr.) C.Jeffrey
A somewhat robust perennial herb from a semi-woody rootstock; stems trailing or scrambling to ca 2–6 m long, or erect and up to 1 m high; capitula many, densely clustered; corollas yellow; ligule 4.5–5 mm long; pappus white, dimorphic, 8–10 mm long, minutely barbellate setae intermixed with down-like hairs; in thickets or dense vegetation on forest margins or on forested stream banks; also in disturbed ground; above 1,000 m. Widespread in Central Africa.
Sonchus oleraceus
Del. Eleanor Catherine

Stoebe kilimandscharica
Del. Sandie Burrows

Stomatanthes africanus
Del. Sandie Burrows

Tagetes minuta
Del. Sandie Burrows

20 mm
20 mm
20 mm
10 mm
long; achenes black, 6–7 mm long, pilose; pappus of 1–2 setae to 3 mm long and 3–4 scales to 1 mm long. A weed of cultivation or post-cultivation. Widespread.

**Malawi**. Nyika National Park, near road on the way to Thazima, 2000, Izidine 43 (LMA).

**Tolpis capensis** (L.) Sch.Bip.  
*Hieracium capense* L.; *Crepis ephemeroides* Hiern.

An erect scapose perennial herb from a stout semi-woody taproot; root crowns lanate; leaves 2–8 sub-resulate, rarely 1 or 2 cauline, 40–50 x 10–15 mm; capitula laxly corymbiform; disc florets numerous, 9–10.5 mm long; ray florets yellow often drying greenish; pappus of 20–30 persistent rigid barbellate setae 5–7 mm long, often with outer whorl of minute setae; an infrequent pyrophyte of grassland, seasonally moist areas, and open deciduous woodland. Widespread in central and southern Africa; also in Madagascar.


**Malawi.** Nyika Plateau, 1,870 m, 1975, Pawek 10228 (K, MAL, MO, SRGH, UC); between Viewpoint and Chisanga Falls, 10°32′21″S, 33°41′07″E, 2000, Koekemoer 1710 (PRE).

**Tolpis mbalesiensis** G.V.Pope

An erect perennial herb up to ca 0.1 m high from a semi-woody taproot, root crown lanate; leaves cauline (4–)7–15.5–(19.5) x (0.5–)1–3.5–(5) mm, narrowly oblanceolate to narrowly obovate; capitula few to many, laxly corymbinate to narrowly obovate; disc florets 5–7 mm long; rays 7–10 mm, strap-shaped, drying greenish; a pyrophyte of short submontane grassland, high-rainfall plateau grasslands, and woodlands, in sandy and rocky soils and escarpments. Recorded from N. Zambia and N. Malawi only.


**Malawi.** Nyika Plateau, Chisanga Falls, 1989, Pope, Radcliffe-Smith & Goyder 2311 (K, LISC).

**Vernonia acrocephala** Klatt.

Scapose perennial herb, 30–300 mm high from a thickened rootstock, root crowns densely brown-lanate; leaves appearing with or after the flowers; leaves membranous, ca 80 x 30 mm; capitula solitary, involucre 11–17 x 15–20 mm; corollas purple or mauve; a pyrophyte of dambos, submontane grassland, and moist deciduous woodlands. Malawi, Zambia, Tanzania, D.R.C., Angola, and Cameroon.


**Malawi.** Nyika Plateau, Nganda Peak, 2,470 m, 1974, Pawek 7915 (K, MO, SRGH, MAL).

**No country given.** 1960, Cox 19 (UZL).

**Vernonia adoensis** Sch.Bip.

*Vernonia integrata* S.Moore

An erect, coarse perennial herb or subshrub, 0.3–3 m high; leaves of upper stem subessile or shortly petiolate; lamina lanceolate, narrowly cuneate at base, toothed to sparsely pubescent or glabrescent below; phyllaries white hispid or puberulous; capitula solitary or few in much reduced corymbiform cymes; disc florets 120–300 per capitulum; corollas whitish or linear, 6–30 x 2 mm, markedly revolute; capitula solitary; phyllaries coriaceous, rounded or obtuse mucronate to acute at the apex; corolla purple; outer pappus of short narrow scales, inner barbellate setae 6–8 mm long; usually in submontane grassland. Malawi, Zambia, Zimbabwe, Mozambique, Tanzania, and South Africa.


**Malawi.** Nyika National Park, between viewpoint and Chisanga Falls, 10°32′21″S, 33°41′07″E, 2000, Koekemoer 1722 (PRE).

**Zambia.** Nyika National Park, 0.5 km S.W. of Zambian Government Rest House, 1986, Philcox, Pope & Chisumpa 9961 (BR, K, MO, NDO, SRGH).

**Vernonia bainesii** Oliv. & Hiern subsp. *bainesii*  
*Vernonia buchananii* Baker

A diffuse or somewhat spreading perennial herb to 0.6(–1.2) m high from a woody rootstock, stems annual; leaves filiform or linear, 6–30 x 2 mm, markedly revolute; capitula solitary; phyllaries coriaceous, rounded or obtuse mucronate to acute at the apex; corollas whitish; outer pappus of short narrow scales, inner barbellate setae 6–8 mm long; usually in submontane grassland. Malawi, Zambia, Zimbabwe, Mozambique, Tanzania, and South Africa.


**Malawi.** Nyika National Park, between Chisanga Falls and Kaperekezi Gate, 2000, Salubeni & Mwanyambo 6838 (MAL); Chelinda Bridge, 2000, Mwanyambo 537 (MAL); Jalawe Viewpoint, 2000, Thera 3102 (MAL); between Chelinda and Chisanga Falls, 10°34′32″S, 33°45′07″E, 2000, Koekemoer 1722 (PRE).

**Zambia.** Nyika National Park, 0.5 km S.W. of Zambian Government Rest House, 1986, Philcox, Pope & Chisumpa 9961 (BR, K, MO, NDO, SRGH).

**Vernonia bainiae** Oliv. & Hiern

A diffuse sand shrub to 3 m high; leaves membranous, petiole to 15 mm long, lamina to 70 x 45 mm, sparsely pilose on both sides; capitula numerous, grouped in dense clusters of 5–30 or in large terminal panicles; florets 8–10 per capitulum; corollas pale-mauve to creamy-white, ca 6 mm long; achenes pale-brownish, 2.5–3 mm long, narrowly cylindrical tapering somewhat to the base, 5-ribbed; outer pappus of short narrow scales; on submontane forest margins. Widespread in tropical Africa to Sudan and Ethiopia.


**Malawi.** Nyika National Park, without locality or collecting details (Patel 1999).

**Vernonia calyculata** S.Moore

*Vernonia natans* var. *sensu* Britten (1894).

An erect, slender perennial herb up to 0.75 m high from a woody rootstock, stems annual; leaves few to numerous, up to 40 mm long and linear, or up to 95 x 12 mm and very narrowly elliptic; capitula in one to many dense terminal clusters, corymbiform cymose arranged in inflorescences; corolla purple, 4–7 mm long; a pyrophyte of dambos, or high-rainfall miombo and mixed deciduous woodland. Malawi, Zambia, Mozambique, South Africa.


**Malawi.** Nyika National Park, without locality or collecting details (Patel 1999).
Vernonia chloropappa Baker

Erect annual herb 0.3–0.8 m; stems sparsely leafy, simple, becoming laxly branched, longitudinally ribbed; leaves largest about mid-stem, up to 80 x 10 mm, linear-oblanceolate; capitula solitary on long branches or 2(–3) on stout stalks; involucres 9–11 mm; corollas white, cream or reddish mauve, seldom purple; inner pappus emerald-green, setae 7–8 mm long; in Brachystegia and Uapaca woodland. Malawi, Zambia, and Tanzania.


Malawi. Nyika National Park, Sawi Valley, 1972, Synge 411 (K, MAL, SRGH); Nchenachena Spur, 1,400 m, 1946, Brass 17368 (K, MAL, MO, PRE, SRGH).

Vernonia colorata (Wild) Drake subsp. oxyura (O.Hoffm.) C.Jeffrey

Vernonia oxyura O.Hofm.; Vernonia cirrifera S.Moore

Shrub or small tree up to 6 m high; leaves elliptic to broadly oblanceolate or ovate, 60–210 x 30–100 mm; capitula numerous in terminal panicle corymbs up to 280 mm across; involucres more than 7 mm long, wider than long; florets 10–26 per capitulum, mauve fading to whitish; outer pappus caducous, linear scale-like; inner pappus copious, reddish, 7–8 mm long, barbellate; on rocky slopes and hillsides in miombo or mixed deciduous woodland. Malawi, Zambia, Mozambique, Kenya, Tanzania, and D.R.C.


Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Vernonia exsertiflora Baker var. exsertiflora

Vernonia kreissmannii Welw. ex Hiern; Vernonia sphaerocalyx Welw. ex Hiern

A bushy shrub or small branched tree to 6 m; stems with grey, rough, longitudinally fissured bark, branches densely hairy, hairs T-shaped; leaves ovate to lanceolate, to 230 x 90 mm, petiolate, petiole to 40 mm long; capitula very numerous in dense clusters to 180 mm diameter; florets 4–20 per capitulum, corollas purplish-mauve or fading white, 7–11 mm long; usually on rocky hillsides in dry deciduous woodland or scrubland. Malawi, Zambia, Zimbabwe, and Tanzania. Not recorded for Nyika in Flora zambesiaca.


Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Vernonia fractiflexa Wild

A slender or robust annual herb, 0.1–2 m high; stems simple or diffusely branched; leaves sessile, to 100 x 5 mm, filiform to linear, upper surface pubescent, gland-dotted on both surfaces; capitula few to many in panicle; corollas purple, to 7.5 mm long, exserted beyond the involucre; in savanna and grassland, sometimes in dambos; also in disturbed ground at roadsides and a weed of cultivation. Zambia, Zimbabwe, Malawi, Mozambique, Tanzania, D.R.C., and South Africa. Not recorded for Nyika in Flora zambesiaca.


Vernonia gerberiformis Oliv. & Hiern
Low-growing scapose herbs, scapes usually white-woolly-pubescent, root crown lanate; leaves numerous basal or clustered on lower stem, 150–360 x 15–20 mm; capitula solitary, terminal, involucre 12–25(–30) x 15–45(–50) mm; corollas cornflower-blue to mauve, 15–30 mm long; a pyrophyte of dambos, seasonally wet grassland, and submontane grassland. Zambia, Zimbabwe, Malawi, Sudan, Uganda, Kenya, Tanzania, D.R.C., and Angola. Not recorded for Nyika in *Flora zambesiaca*.


Vernonia griseopapposa G.V.Pope
Perennial herb up to 0.4 m high from a thickened vertical rootstock; stems erect, densely strigose or tomentose; basal leaves crowded or subrotulate, 125–140 x 18–25 mm, linear-oblongate, lamina sparsely hispid or glabrous, gland-pitted; capitula 1–2 at the end of branches; involucres to 10 mm long; corollas pale mauve or whitish, ca 8 mm long; in montane grassland usually over 2,000 m. Nyika Plateau and Burundi.


Malawi. Nyika National Park, without localities, 2,200 m, 1968, Pawek 2105 (K); Juniper Forest, 10° 45' 06" S, 33° 53' 15" E, 2000, Koekemoer 1885 (PRE).

Zambia. Nyika Plateau, 0.5 km S.W. of Government Rest House, 1986, Philcox, Pope & Chisumpa 9967 (K, holo., BR, GA, LISC, M, MO, NDO, SRGH, UPS, WAG, iso.).

Vernonia karaguensis Oliv. & Hiern
*Vernonia bothrioclinoides* C.H.Whitl; *Vernonia porphyrolepis* S.Moore
Slender, erect perennial herb to 2 m high from a small woody rootstock; stems annual, 1 to several, branched above, densely pubescent; leaves subsessile, to 120 x 40 mm, lanceolate-oblong, lower surface densely tomentose; capitula very numerous, in clusters in terminal panicles; involucres 4–7 mm long; corolla purple, 7–8 mm long; in high-rainfall miombo woodland, often near streams. Zimbabwe and Mozambique to Angola, Nigeria, Sudan, and Ethiopia.


Vernonia kawoziensis F.G.Davies
A tufted perennial herb, to 0.75 mm high from a woody rootstock; stems annual, many, simple, ribbed and sparsely hispid; leaves subsessile, to 60 x 23 mm, lamina leathery; capitula 3–13, corymbiform, on stiff stalks to 70 mm long; involucres to 20 mm long; corolla deep blue, 17–19 mm long; achenes 7–9 mm long, subcylindrical, 10-ribbed; outer pappus of short simple scale-like setae; inner pappus of flattened subplumose setae ca 13 mm long; in miombo woodland. Endemic to the Nyika Plateau.


Malawi. Nyika National Park, Mt. Kawozya, 1,890 m, 1972, Brummitt and Syme WC178 (K, holo., MAL, SRGH).

Vernonia melleri Oliv. & Hiern var. melleri
*Vernonia scalarisfolia* var. amplifolia O.Hoffm.
An erect, scabrid perennial herb, 0.3–1.5 m high from a woody rootstock; stems annual; leaves 40–190 x 20–60 mm, obovate to narrowly oblongate; capitula 4–21, solitary and terminal; corolla 18–25 mm long, yellowish brown below, cornflower-blue or purpureous above; outer pappus of 2.5–5 mm long barbellate, scale-like setae, inner cypselous, 10–14 mm long, barbellate; in miombo and other deciduous woodland or grassland. Malawi, Botswana, Zambia, Zimbabwe, Mozambique, Angola, D.R.C., and Tanzania.


Malawi. Rumpfi—Nyika Road, 1,375 m, 1973, Pawek 6577 (K, MO, MAL).

Vernonia muelleri Wild subsp. brevicuspis G.V.Pope
*Vernonia jugalis* var. jugalis sensu Wild; *Vernonia jugalis* var. dekindti sensu Wild.
Lax bushy perennial herb or subshrub to 2.6 m high; leaves petiolate, up to 160 x 50 mm, cuneate at base, sparsely puberulous to glabrescent beneath; capitula laxly arranged in many 3– to 9-capitulate clusters; involucres 10–15 mm long; outer phyllaries pungent-arthritic or cuspidate, apical bristles less than 2 mm long; corolla pale-mauve to whitish, ca 10 mm long; outer pappus of short, narrowly oblong scales, inner of caducous stramineous barbellate setae 6–8 mm long; in high-rainfall woodland, often beside rivers. Zambia, Tanzania, D.R.C., and Malawi.


Malawi. Nyika Plateau, 1,200–1,800 m, 1896, Whyte s.n. (K).

Vernonia musosensis S.Moore var. mimensis (S.Moore) G.V.Pope
Erect slender perennial herb 0.2–0.5 m tall, with sparsely hairy or hairless stems; leaves sessile, narrowly oblong to oblong-lanceolate, 110–150 x 80–250 mm; corolla purple to creamy white; in miombo woodland and grassland; 1,000–1,700 m. Mozambique and Zambia to Nigeria, D.R.C., and Tanzania.


Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Vernonia myrianthra Hook.f.
*Vernonia ampla* O.Hoffm.; *Vernonia stipulacea* Klatt
A spreading shrub 1.5–6 m high, stems angular when young; petiole to 400 x 150 mm, oblong-elliptic, margins irregularly serrate to coarsely serrate-dentate with callose-tipped teeth, upper surface sparsely hairy, lower surface grey-green pubescent; capitula small, very numerous, in subglabose clusters in panicles; involucres 3.5–7 x 2.5–5.5 mm; florets 2–6 per capitulum, corollas whitish or pale mauve to purple, ca. 7 mm long; in most localities, including high-rainfall woodland, riverine vegetation, wet or marshy grassland, and evergreen forest margins. Widespread in tropical Africa.


Vernonia natalensis Sch.Bip. ex Walp.
*Vernonia pseudonatalensis* Wild
A erect tufted perennial herb to 1.2 m high from a woody rootstock; capitula numerous in a dense terminal corymbiform cyme arrangement up to 250 mm across; corolla purple, 5–7 mm long; outer pappus of very short, linear, acuminate scales, inner pappus 4.5–6 mm long, barbelate. The variant from the mountains of N. Malawi, N.E. Zambia, and S.W. Tanzania has leaves which are more ellipitic, shorter, more discolorous and thinner in texture than in the other two variants; a pyrophyte of dambos, grassland, and Brachystegus-Uapaca woodlands. Widespread in eastern Africa, from Kenya to Angola and South Africa.


Malawi. Nyika National Park, along road from Chelinda Camp to Chisanga Falls, 10° 36' 46" S, 33° 45' 24" E, 2000, Koekemoer 1706 (PRE); between Chelinda Bridge and Dembo River crossing, 10° 32' 38" S, 33° 50' 33" E, 2000, Koekemoer 1745 (PRE); N. of Lake Kaulime, Kaulime River, 2000, Willis & Luhanga 117 (PRE); Wowwe River, 2000, Willis 152 (PRE).


Vernonia nestor S.Moore
Erect hispid-villosus perennial herb, to 0.9 m high, from a slender contorted woody rootstock; stems annual; leaves sessile, stiff, to 95 x 20 mm; capitula numerous, shortly-stalked; involucres 7–10 mm long; corollas purplish, to 8 mm long; achenes 1.5–2.5 mm long, oblong-turbinate, narrowly 5–6-ribbed, uniformly strigulose-pubescent; outer pappus of short scales 1–1.5 mm long; inner pappus of barbellate setae 6.5–7 mm long; in miombo woodland, often in sandy soils. Zambia, Malawi, Mozambique, Tanzania, and W. Africa.


Malawi. Nyika National Park, without locality or collecting details (Mill 1979).
Vernonia oligocephala Sch.Bip.
Erect, herbaceous perennial to 0.75 m tall, multiple flowering branches from a woody rootstock; leaves elliptic, dark green above, silvery below; capitula disciform, ca 10 mm diameter, in large numbers terminal on branches; flowers bright violet; a pyrophyte of wooded grasslands and grasslands. From Tanzania and D.R.C. to Namibia and South Africa, but not recorded from Malawi in Flora zambesiaca. The leaves and twigs are used medicinally in South Africa.


Vernonia praemorsa Muschsl. ●
Vernonia castellana S.Moore; Vernonia kulana S.Moore
Erect perennial herb, 0.1–0.7 m high from a woody rootstock, stems annual; leaves appearing before or with the flowers, mostly subrostulate, ascending, 2–8 basal; capitula numerous in a dense terminal cluster 25–60 mm across; corollas purple to mauve; in dambos and submontane grassland and in high-rainfall miombo woodland. Malawi, Zambia, Tanzania, D.R.C., and Angola.


Malawi. Nyika Plateau, Burna area, road to Rukuru Bridge, 2,250 m, 1967, Richards 22638 (K, M, SRGH).

Vernonia stenocephala Oliv.
Vernonia oceophila Baker
Erect, leafy perennial herb to 1.3 m high, one to several stems from rootstock, soon becoming leafless below, usually much-branched above; cauline leaves linear-elliptic, ca 70 x 22 mm, branch leaves mostly ericaceous, 10–30 mm x 1–3 mm; capitula numerous, densely paniculate at stem apex; corollas white or creamy-white; in miombo woodland. Malawi, Zambia, Mozambique, Nigeria, Burundi, Tanzania, D.R.C., and Angola. The specimen from Chelinda Bridge (2000, Izidine 51 (LMA)) is perhaps a misidentification since the habitat is pure montane grassland.


Malawi. Nyika Plateau, 2,270 m, 1903, McClounie s.n. (K).

Vernonia suprafastigiata Klatt.
An erect, laxly spreading subshrub or shrub, 0.15–4 m high, from a woody base, usually leafless when flowering; leaves petiolate, ca 85 x 30 mm, narrow elliptic to obovate-oblancoolate; capitula borne, 1–7, on numerous abbreviated lateral shoots; florets 9–12 (17) per capitulum; purple or mauve, paler below; in various types of mixed deciduous woodland, including miombo, Brachystegia Uapaca, Colophospermum mopane, and Kirkia woodland, often on rocky hillsides and escarpments. Malawi, Zambia, Zimbabwe, Tanzania, D.R.C., and Angola.


Malawi. Nyika Plateau, 2,290 m, 1903, McClounie 65 (K).

Vernonia syringifolia O.Hoffm.
Shrub, sometimes scandent, to 6 m high; leaves membranous, petaloid, petiole 10–30 mm, lamina 13 x 6 mm, ovate-lanceolate, apex tapering acuminate; capitula numerous, densely clustered, 3–6 mm across; florets 15–20 per capitulum; corollas pale mauve to whitish, sweet scented; outer pappus fringe-like, inner barbellate, 5–6 mm long; in submontane evergreen forest margins. Zambia, Malawi, Sudan, Uganda, Rwanda, Kenya, Tanzania, and D.R.C.


Malawi. Nyika Plateau, ca 10 km from Chelinda Camp, 2,200 m, Brummitt 11955 (K, LISC, MAL, PRE, SRGH, UPS); forest 4 km W. of Nganda, 1972, Brummitt & Sygne 79 (K, NDO, MAL); between Viewpoint and Chisanga Falls, 10° 32' 31" S, 33° 41' 07" E, 2000, Koekemoer 1717 (PRE).


Vernonia tolyphora Mattt.
Vernonia hynemolesen sensu Earle Sm.; Vernonia lasiopos sensu Earle Sm.; Vernonia hynemolesen subsp. tolyphora (Mattt.) Wild.
An erect, sparsely branched subshrub, 1.2–3 m high; petiole 3–20 mm long, leaves soft, to 120 x 70 mm, ovate to lanceolate, margins serrulate to serrate with callose-tipped teeth, upper surface dark green, lower surface pale greyish green; capitula in numerous congested globose clusters to 50 mm across; involucres 8–15 x 10–20 mm; florets 20–40 per capitulum; corollas mauve or white, 9–15 mm long; along river and stream banks, in dambos, and forest margins, at medium to high altitudes, often in masses. Malawi, Tanzania, Zambia, and Mozambique.


Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Vernonia turbinella S.Moore
A robust, greyish, tough perennial herb up to 1.2 m high, from a large woody rootstock, stems annual, one to many, tufted; leaves closely spaced, ascending, up to 125 x 90 mm in lower leaves; capitula numerous in terminal panicle up to 220 mm across; corollas cream to mauve, 6–9 mm long; in miombo woodland, wooded grasslands and submontane grassland, often on escarpments or rocky outcrops with tall grasses at medium altitudes. Zambia, Malawi, D.R.C., and Angola.


Malawi. Nyika National Park, Juniper Forest, 10° 45’ 06” S, 33° 53’ 15” E, 2000, Koekemoer 1892 (PRE); N. of Mwanda Mountain, 2000, Willis & Luhanga 180 (PRE).

Zambia. Nyika plateau, Kangampande Mt. (Chowo Forest), 2,130 m, 1952, White 2799 (FHO, K).

Vernonia ugandensis S.Moore
Vernonia harboae Wild
Robust perennial herb to 0.8 m high, from a thickened vertical Woodstock; stems erect; basal leaves usually subrostulate, to 160 x 40 mm, oblancoolate; capitula 3 to numerous, cymosely arranged; involucres to 12 mm long; corolla purple to whitish, ca 9 mm long; in dambos, grassland, miombo and mixed woodland. Zambia, Malawi, Mozambique, Uganda, Burundi, Tanzania, D.R.C., and Angola.


Excluded species

Aster bakeranus Burtt Davy ex C.A.Sm.
A South African species; this record is perhaps A. tansaniensis Lippert.


Calostephane angolensis (O.Hoffm.) Anderb.
Name to be verified.


Crepis oliverana (Kuntze) C.Jeffrey
Known only from Kenya, Tanzania, and Cameroon.


Dicoma amoena
An unauthored name not found in Flora zambesiaca or Index Kevennis.


Helichrysum angustifroideum S.Moore
This taxon is only recorded from Zimbabwe and Angola. Presumably a misidentification.


Helichrysum chrysargyrum Moeser
This species is confined to South Africa. It is assumed that these two collections are misidentifications.


Helichrysum cooperi Harv.
‘There is one sheet bearing the name H. cooperi (Nyika, Chelinda River bridge, 1969, Paewek 2155) at Kew, but the covering folder has cooperi crossed out and an emphatic ‘NO! scrawled above—without indication of who did this. I think the specimen is probably H. kirkii.’ (H. Beenjte, pers. comm.) H. cooperi is apparently endemic to South Africa (Hilliard 1983).


**Helichrysum geminatum** Klatt

Name not recorded in any recent treatments of *Helichrysum*.


**Helichrysum milne-redheadii** Brenan

Name to be verified.


**Helichrysum squamosum** Less.


**Helichrysum trachyphyllum**

An unauthored name to be verified.


**Mikania chevalieri** (C.D. Adams) Holmes & McDaniel

*Mikania cordata* (Burm.f.) Robinson var. chevalieri C.D. Adams; *Mikania laxa* A.Chev.

Type specimens are from Nigeria and the Ivory Coast; its distribution probably does not extend to Nyika.


**Senecio diphyllos** De Wild. & Muschl.


**Senecio proprior** S.Moore

Name not in F.T.E.A. Compositae (3).


**Senecio striatifolius** DC.

According to Hilliard (1977: 456) this species is confined to South Africa and Zimbabwe. Since we have no confirmed specimen from Malawi, it is excluded here.

**Malawi**. Nyika National Park, without locality or collecting details (Patel 1999).

**Senecio tamoides** DC.

According to Hilliard (1977: 493) this species is confined to Zimbabwe and South Africa. Perhaps a mistaken identification for the similar climbing *S. syringifolius*.

**Malawi**. Nyika National Park, without locality or collecting details (Mill 1979).

**Senecio variabilis** Sch.Bip.

This species is confined to the coastal belt of KwaZulu-Natal and the Eastern Cape (Hilliard 1977). Since *S. variabilis* appears to be closely related to *S. erubescens*, these records probably belong there.

**Impatiens assurgens** Baker

Erect perennial herb 10–60 mm tall; leaves opposite, decussate; flowers small, white, upper petal hooded; widespread in grassland, open moist woodland, marshes, and dambos. N.W. Mozambique to Angola and D.R.C.


**Malawi**. Nyika National Park, Lake Kaulime, 1958, Robson 621 (BM, K, LISC, SRGH); Chisanga Falls, 2000, Kasakula 203 (LMA, MAL, SRGH).

**Impatiens eryaleia** Launert

Flowers pale mauve to deep rose, open; in moist, shaded places in upland rainforest. This species is not recorded from the Nyika in *Flora zambesiaca*, but is indicated for the Nyika area in Grey-Wilson (1980) and probably occurs there. The specimen quoted here requires confirmation since the locality is outside the species’ habitat.


Begonia sutherlandii subsp. sutherlandii
Del. Sandie Burrows

Berberis holstii
Del. Sandie Burrows

Impatiens gomphophylla subsp. gomphophylla
Del. Sandie Burrows

Impatiens tinctoria subsp. latifolia
Del. Sandie Burrows

Stereospermum kunthianum
Del. Sandie Burrows


**Impatiens gomphophylla** Baker f. subsp. gomphophylla

Erect herb 1.0–1.5 m tall; flowers red or orange, in clusters in leaf axils along the stem; in scrub along roads, in drainage lines, on forest margins; Malawi, Zambia, S.E. D.R.C., and S. Tanzania. More frequent on the western Nyika.


**Malawi.** Nyika National Park, Thazima Road, 2000, Phiri 3608 (UZL); Chelinda Bridge, 2000, Willis 37 (MAL, PRE).

**Zambia.** Nyika National Park, Rest House area, 2000, Phiri 3580 (UZL).

**Impatiens hydrogetonoides** Launert

Soft erect to prostrate herb, stems to 0.5 m tall; leaves greyish green, sparsely hairy below; flowers 1–3 in leaf axils, pink; growing in spray of waterfalls and moist shaded areas in upland rainforest. Known only from Zambia, S. Tanzania, and the Mafinga Mountains in Malawi. Not recorded for the Nyika by Grey-Wilson (1980) or in *Flora zambesiaca* 2,1(1963), and not supported by any recent specimens.


**Malawi.** Nyika Plateau, N. Rukuru (Chisanga) Falls, Dowsett-Lemaire, without quoted specimen.

**Zambia.** Nyika Plateau, Manyenjere Forest, Dowsett-Lemaire, without quoted specimen.

**Impatiens polyantha** Gilg

**Impatiens brachycentra** Schulze & Launert

Erect to straggly herb; flowers white, hooded, similar to *I. assurgens*, but the leaves larger and alternate; in grassland and near streams, often on roadside banks on the western Nyika. Known only from the Nyika and S. Tanzania.


**Malawi.** Nyika National Park, Nganda Hill summit, 2000, Burrows & Burrows 6846 (MAL, PRE, UZL); Nthakati Peak, 2000, Willis, Patel & Luhanga 128 (PRE).

**Zambia.** Nyika Plateau, without precise locality, 1959, Richards 10423 (K, SRGH).

**Impatiens rubromaculata** Warb. subsp. schulziana (Launert) Grey-Wilson

**BALSAMINACEAE**

**Begonia princeae** Gilg

Perennial herb 50–300 mm high, tuberous; leaves simple, fleshy, base markedly asymmetrical; flowers pale to bright pink; on termitaria in bush and woodland; 910–2,150 m. N. Mozambique, Malawi, Zambia, D.R.C., Angola, and Tanzania.


**Malawi.** Nyika, Lohanga Valley, 1956, Chapman 386 (BM).

**Zambia.** Lundazi District, 120 km N. of Rumphi (presumed to be on the Zambian Nyika), 1970, Pawek 4158 (K).

**Begonia sutherlandii** Hook.f. ?subsp. sutherlandii

Tuberous perennial herb; leaves soft, base asymmetrical, margin toothed; flowers orange; on shady rock faces or (on Nyika) epiphytic on forest trees. South Africa to Tanzania and D.R.C. Subspecies unconfirmed.

**Malawi.** Nyika National Park, below Chelinda Bridge, 2000, Burrows & Burrows 6839 (K, MAL, PRE, SRGH, UZL).

**Impatiens zombensis** Baker

Shrubby branched soft herb; flowers small, pink to magenta; along streams, on forest margins or in secondary scrub. According to Grey-Wilson (1980), *I. zombensis* is confined to S. Malawi and he does not record it from the Nyika.


**Malawi.** Nyika National Park, without precise locality, 7,000–8,000’, 1932, Sanderson 17 (BM).

**Impatiens species A**

Erect herb to 300 mm tall, growing in marshy areas near river; leaves thick, semi-fleshy; flowers deep pink with yellow markings on throat. This species has been determined as *I. assurgens* (PRE), but it is quite clearly different from that species which has white flowers, is smaller in stature, and has leaves of a thinner texture.

**Malawi.** Nyika National Park, below Chelinda Bridge, 2000, Burrows & Burrows 6839 (K, MAL, PRE, SRGH, UZL).

**Impatiens tinctoria** A.Rich. subsp. latifolia

**Impatiens praeniana** sensu Launert (1963), non Gilg

Erect perennial herb to 2 m tall; flowers large, white, parts finely dotted purple; in damp, shaded places in wet forest, along streams, and on forest margins. The subspecies is known only from N. Malawi and S. Tanzania.


**Malawi.** Nyika Plateau, without precise locality, 1959, Richards 10395 (K, SRGH); road from Thazima to Zambian Rest House, 2000, Burrows & Burrows 6833 (MAL, PRE).

**Zambia.** Nyika, without precise locality, 1962, Fanshawe 7386 (K); Rest House area, 2000, Phiri 3762 (UZL).

**BERBERIDACEAE**

**Berberis holstii** Engl.

Shrub to 3 m tall, branches armed with 3-pointed spines; leaves simple; flowers in clusters, yellow; fruit a berry, purplish; in montane scrub and forest margins; 2,250–2,450 m. Malawi (Nyika) to Ethiopia. Known only from the Nyika Plateau within the *Flora zambesiaca* region. The local people use the yellow roots medicinally.

**Malawi.** Nyika National Park, Lake Kaulime, 2000, Phiri 3718 (UZL); Chisanga Falls, 2000, Mwanyambo 503 (MAL).

**BIGONIACEAE**

**Stereospermum kunthianum** Cham.

Pink jacaranda

Small to medium tree to 15 m; leaves pinnate; flowers pink, trumpet-shaped, showy; in various types of woodland, 60–1,500 m. Zimbabwe to Senegal and Ethiopia. Presumably confined to the lower fringes of the Park.

**Malawi.** Nyika National Park, without locality or collecting details (Patel 1999).
Tecomaria nyassae
Del. Sandie Burrows

Cynoglossum geometricum
Del. Sandie Burrows

Heliotropium zeylanicum
Del. Sandie Burrows

Lithospermum afromontanum
Del. Sandie Burrows
Cynoglossum amplifolium Hochst. ex A.DC.  
Perennial much-branched herb 0.8–2 m tall; leaves ovate to elliptic, sticky; flowers small, yellow, blue; fruit round, with numerous small hooks; on stream edges, at moist evergreen montane forest margins, in ravine forests, and in montane grasslands; 1,980–2,440 m. From Ethiopia southwards, through the mountains of E. Africa to Zimbabwe.  

Cynoglossum coeruleum Hochst. ex A.DC.  
Cynoglossum africatumefolium (Mill) Riedl  
Erect much-branched herb to 1.2 m tall; leaves linear to lanceolate, sticky-hairy; flowers blue; fruit covered in small hooks; in submontane grassland. Malawi, Tanzania, Kenya, and Ethiopia.  
Malawi. Nyika Plateau, towards Kasaraniwa, 2,370 m, 1970, Pavvek 3387 (K).

Cynoglossum geometricum Baker & Wright  
Cynoglossum lanceolatum (Forssk.) Baker & Wright (Brand subsp. geometricum)  
Biennial or perennial herb 0.3–1.2 m tall; leaves narrowly opposite, petiolate, triangular to ovate, 10–100 mm × 7–75 mm, base truncate or cordate, decurrent on petiole, sticky-hairy; flowers white to cream; in scrub and forest margins; 2,000–2,600 m. South Africa to Tanzania.  

Buddleja dyssphylla (Benth.) Radlk.  
Straggly shrub or scendent to 10 m; leaves opposite, petiolate, narrowly triangular to ovate, 10–100 mm × 7–75 mm, base truncate or cordate, decurrent into the petiole, margins irregularly toothed, finely hairy; flowers in dense terminal clusters, white to cream; in scrub and forest margins; 2,000–2,600 m. South Africa to Tanzania.  
Malawi. Nyika National Park, Zovochipolo Forest, Dowsett-Lemaire 134 (White et al. 2001); Juniper Forest Reserve, 2,000 m, 1982, Chapman 6313 (FHO).

Buddleja pulchella N.E.Br.  
Climbing shrub to 20 m high; leaves more or less opposite, petiolate, triangular to ovate or ovate-elliptic, 18–100 mm × 10–50 mm, base tapering, decurrent into the petiole, margins entire or with a few lobes in the lower half, finely grey-hairy; flowers in small terminal clusters, yellowish to salmon; in or on edges of forest, or in woodland. South Africa to Kenya. Rare on Nyika.  
118 Plants of the Nyika Plateau

*Trichodesma physaloides*
Del. Sandie Burrows

*Nuxia congesta*
Del. Sandie Burrows

*Buddleja dysophylla*
Del. Sandie Burrows

*Buddleja pulchella*

*Buddleja salvifolia*

*Bauhinia petersiana*

*Brachystegia spiciformis*
Del. Sandie Burrows

*Trichodesma physaloides*
Del. Sandie Burrows

*Buddleja dysophylla*
Del. Sandie Burrows

*Buddleja pulchella*

*Buddleja salvifolia*

*Bauhinia petersiana*

*Brachystegia spiciformis*
Del. Sandie Burrows
Bauhinia petersiana Bolle

white bauhinia; Chichewa: mpandu; Yao: muawu, mpandula

Shrub to 4 m tall, sometimes semi-scandent; leaves blue-green, 2-lobed; flowers white; fruit a woody dehiscent pod; common in escarpment miombo woodland, especially at lower altitudes. Zimbabwe to Tanzania and D.R.C.


Brachystegia allenii Butt Davy & Hutch.

Tree 3–15 m tall (usually < 10 m); leaves blue-green, leaflets usually twisted at 90° from the rachis plane; pods held at right angles to the stalk, above the crown; rocky escarpments, 500–1,125 m. Zimbabwe Malawi, Zambia, D.R.C., and Tanzania.

Malawi. Nyika Plateau, without locality (northern end), collector unknown (Patel 1999).

Brachystegia boehmioid Taub.

Chichewa: mombo; Yao: njombo; Tumbuka: chiombo

Tree 3–15 m tall, bark rough, grey; leaves pinnate, with 13–24 pairs pinnae, overlapping or touching, leaves somewhat pendulous; widespread and dominant in places, often on poor soils on hills and escarpments; 900–1,700 m. Zimbabwe to Angola and Tanzania. The timber is used for building poles and for charcoal.


Brachystegia bussei Harms

Chichewa: mzeza; Yao: mtwana

Slender, straight-boled tree with smooth, pale grey bark; leaflets in 2–3(4) widely-spaced pairs, subequial or distal pair largest; pods pendulous, more or less shiny; on rocky hillsides, often in pure stands, 900–1,375 m. Mozambique, Malawi, Zambia, D.R.C., and Tanzania. The trunk exudes a very sticky sap, which is used for birdlime. An infusion of the roots is used to treat stomach complaints.


Brachystegia floribunda Benth.

Chichewa: tamba; Yao: msumbu; Tumbuka: faija

Tree 6–20 m, crown thin, bark smooth at first, roughening with age; leaflets 2–4 pairs, widely-spaced, distal pair the largest; pods very pendulous, smooth blackish purple; widespread above 1,200 m; a major component of some miombo woodland. Mozambique, Malawi, Zambia, Angola, D.R.C., and Tanzania.


Brachystegia longifolia Benth.

Chichewa: babbu mombo; Yao: ntambo, njombo; Tumbuka: chitowe

Large straight-boled, flat-topped tree 6–30 m tall, bark rough, iron-grey; leaves mid-green, leaflets in 5–16 spaced or touching pairs, the middle pairs the largest; pods horizontal or pendulous, reddish brown, more or less shiny; widespread dominant of miombo woodlands in Zambia and N. Malawi, also in Tanzania, Mozambique, Angola, and D.R.C. A bark cloth, known as nyando or chiwondo, was, until recently, made from the bark of this tree.


Brachystegia manga De Wild.

blue-leaved brachystegia; Chichewa: mbwisa

Medium tree 4–15 m tall with dense rounded crown; leaves grey- or mid-green, leaflets in 3–4 pairs, touching to widely spaced, widest in the middle; pods pendulous, pinkish brown with a bloom; on rocky hillsides and escarpments, favours sandy soils, rather local, 1,100–1,600 m. E. Zambia, N. Zimbabwe, Mozambique, Malawi, D.R.C., and Tanzania.


Brachystegia microphylla Harms

Brachystegia tamarindoides Welw. ex Benth. subsp. microphylla (Harms) A.C. Chikuni

Tree 6–20 m tall, crown spreading, bark smooth, mottled grey; leaves pinnate, with 20–25 pairs of leaflets; pods flat, woody, splitting in a twist; in miombo woodland on rocky hills in higher rainfall areas, often in mist belt woodland. Zimbabwe to D.R.C. and Tanzania.

Malawi. Nyika National Park, without locality, 2000, Thera 3099 (MAL).

Brachystegia spiciformis Benth.

Chichewa: chambe, mpapa; Tumbuka: musani

Tree 3–25 m tall, often stunted at high altitudes, crown rounded to more or less spreading, bark rough, dark grey; leaves pinnate, with 3–5 pairs of pinnae, the largest pair at the end; flowers in greenish racemes, sweetly scented; pods distributed throughout the canopy of the tree, flat, hard/woody, hairless, splitting in a twist to expel the seeds; a major component of miombo woodland, on a wide variety of soils and geology; near sea level to 2,050 m, widespread, from Mozambique and N. South Africa to Tanzania, D.R.C., and Angola. This species, together with Julbernardia globiflora, is the most important constituent of miombo woodland. The timber is widely used for firewood, charcoal, and building materials, the inner bark makes an excellent string, the whole bark is used to make beehives, and the roots have medicinal uses.


Malawi. Nyika Plateau, Chipone Valley, 1972, Synge 221 (K); near Thazima Gate, 2000, Kasakula 258 (LMA, MAL, SRGH).

Brachystegia tamarindoides Welw. ex Benth. subsp. glaucescens Hutch. & Butt Davy

mountain acacia; Chichewa: mombo; Tumbuka: ntwana

Large tree with open flat-topped crown and smoothish grey bark; leaves blue-green, 7–23 paired or touching pairs, middle pairs the largest; pods purplish brown, smooth; characteristic of rocky, often granite, hills and escarpments. Zimbabwe to Malawi, Mozambique, and Zambia.


Brachystegia taxifolia Harms

Tumbuka: tuunda

Large straight-boled, flat-topped tree 6–30 m tall, bark rough, iron-grey; leaves mid-green, leaflets in 5–16 spaced or touching pairs, the middle pairs the largest; pods horizontal or pendulous, reddish brown, more or less shiny; widespread dominant of miombo woodlands in Zambia and N. Malawi, also in Tanzania, Mozambique, Angola, and D.R.C. A bark cloth, tapering, margin entire; flowers small, creamy, fragrant, in large branched clusters; in montane forest, often near rivers, and in heath vegetation; 800–2,400 m. South Africa and throughout eastern Africa.


Malawi. Nyika National Park, 6 km E.S.E. of Nganda, 1972, Brummitt, Munthali & Synge 124 (K, MAL, SRGH, FHO); head of Mondwe Valley, 2,285 m, 1972, Brummitt & Synge 245 (FHO, K).

Bush to small tree 1.5–16 m tall, crown dense dark green, flat-topped; leaflets 22–45 pairs, closely-packed, widest about the middle; pods woody, pale brown; on poor sandy soils at high altitudes in higher rainfall areas, often forming dense stands; 1,200–1,800 m. Malawi, Zambia, D.R.C., and S. Tanzania.


Brachystegia utilis Burtt Davy & Hutch. Chichewa: zala, mombo; Yao: ngwesu; Tumuka: mjenje; English: feather bush. Small tree 10–12 m tall, crown rounded, dense, bark smooth at first, dark and rough with age; leaves dark green, leaflets in 5–9 more or less touching pairs, subequal; pods smooth pinkish brown to plum-coloured; in miombo woodland on ridges and hills on gritty or stony slopes, mainly above 1,000 m. Zimbabwe to Tanzania, Mozambique to Angola.

Malawi. Nyika Plateau, without locality, collector unknown (Pate 1997).

Cassia kirkii Oliv. var. kirkii nom. alt. Chamaecrista kirkii (Oliv) Standley Erect annual herb; leaves with 18–59 pairs of leaflets, hairy or not; pods hairy, 40–90 mm long; in grassland, marshy areas, and forest edges; 910–2,300 m. Zimbabwe to Kenya and Nigeria.


Cassia mimosoides L. v. syn. Chamaecrista mimosoides (L.) Lock Chichewa: ngwangwalate; English: mimosa locoweed. Very variable annual or perennial erect to prostrate herb to 1.5 m tall; leaflets in 16–76 pairs with elliptic-oblong to linear-oblong, 2.5–8 mm long, more or less hairless; flowers yellow; pods linear, 35–80 mm long, hairy; on forest margins, in wooded grassland, disturbed areas; to 2,740 m. Through-out the Old World tropics. A very variable species.


Zambia. Western part of Nyika National Park, 2000, Phiri 3964 (UZL).

Cassia parva Steyart nom. alt. Chamaecrista parva (Steyart) Lock Perennial herb 50–500 mm tall, stems erect, sparingly branched; leaflets in 7–32 pairs, narrowly oblong to lanceolate, 3–11 mm long; yellow flowers; pods 35–45 mm long, 3.5–4 mm wide; in grassland, deciduous woodland; 1,580–2,100 m. Zimbabwe to Kenya.


Malawi. Nyika Plateau, 8 km E. of Nganda, 1972, Brummitt, Munthali & Synge 1.15 (K, MAL); Thazima Gate, towards Chelinda, 2000, Mwanyambo 507 (MAL).

Cassia quareii (Ghesq.) Steyart nom. alt. Chamaecrista stricta E.Mey. Annual herb with prostrate or ascending stems to 300 m tall; leaflets in 20–35 pairs, sessile; pods 30–60 mm long, 3.5–5.5 mm wide; in miombo woodland, often in disturbed ground and along roadsides; 880–2,040 m; South Africa to Kenya.

Malawi. Nyika National Park, Thazima Road, 2000, Phiri 3604 (UZL).

Cassia singueana Delile nom. alt. Senna singueana (Delile) Lock winter cassia; Chichewa: mpatsachoko; Yao: mtewelwe, mtewere; Tumuka: njenje. Shrubby or small tree 1–15 m high; leaf petiole without glands; leaflets in 6–10 pairs, elliptic to oblanceolate, 25–63 mm long, hairy or not; flowers yellow; pods straight, cylindrical, 55–260 mm long, hairy or not; wood-land and wooded grassland; 0–2,130 m. Widespread in tropical Africa. The pods are eaten raw or cooked.


Cassia wittei Ghesq. nom. alt. Chamaecrista wittei (Ghesq.) Lock Annual herb 0.3–1.5 m tall, with erect or spreading hairy branches; leaflets sessile, in 13–40 pairs, narrowly oblong, 6–12 mm long, hairless; flowers yellow; pods 50–75 mm long, 5–6 mm wide; in upland grassland and montane scrub or bush; 1,740–2,590 m. Zimbabwe to Cameroon and Ethiopia.

Malawi. Nyika Plateau, without locality or collecting details (Mill 1979).

Cryptosepalum maraviense Oliv. v. syn. Tumuka: balawala; Yao: itindi-jombo

Suffrutex producing annual erect stems to 400 mm tall; leaflets in 3–16 pairs, overlapping, bases asymmetrical; pods small 25–50 mm long, dark brown, thinly woody, at dehiscence the red seeds extended outside the pod on a rigid stalk; in miombo woodlands, widespread in the higher rainfall areas, 300–1,600 m. Mozambique to D.R.C. and Tanzania.


Isoborlinia angolensis (Welw. ex Benth.) Hoyle & Brenan v. syn. Isoberlinia tomentosa (Harms) Craib & Stapf.

As for I. angolensis, but differs in having the upper flowering petal rounded or emarginate (not bilobed) and ultimate branches of the panicle long, 35–250 mm (not short, 25–80 mm). Zambia and Malawi to Sudan and W. Africa. Not recognised as distinct from I. angolensis by White (1962).


Malawi. Nyika Plateau, Chipome Valley, 1972, Synge 219 (K); Thazima Gate, 2000, Burrows & Burrows 6811 (MAL, PRE).

Isoborlinia tomentosa (Harms) Craib & Stapf Tree to ca 12 m tall, dark grey, scaly; leaflets in 3–4 pairs, large, 70–190 mm long, hairy or hairless (see varieties); pods large, woody, 190–350 mm long, set with short rusty hairs; widespread component of miombo woodlands in high-rainfall areas. Malawi, Zambia, Angola, D.R.C., and Tanzania.


Julbernardia globiflora (Benth.) Troupin v. syn. Chamaecrista stricta E.Mey. deciduous small tree to 12 m tall, bark smooth, pale when young, grey and rough when older; leaflets in 4–6 pairs, the largest about the middle, mar-gins fringed with whitish hairs; pods brown, minutely hairy, mostly situ-ated on the top of the tree crown; a widespread and major component of miombo woodland. Zimbabwe to Tanzania, Mozambique to Botswana. Widely used for firewood and charcoal, the bark stripped for beehives and rope; a good honey tree.


Julbernardia paniculata (Benth.) Troupin Evergreen flat-topped tree to 20 m tall, bark grey, smooth, flaking; leaf-lets in 3–4 pairs, sparsely hairy to more or less glabrous; pods dark brown velvety; widespread component of miombo woodland, often with Brachystegia floribunda; 1,150–1,550 m. Mozambique to Angola, Zam-bia to Tanzania.

Malawi. Nyika National Park, Thazima Gate, 2000, Phiri 3627 (UZL); Zambian Rest House to Thazima, 2000, Izidene 44 (LMA).

Piliostigma thonningii (Schumach.) Milne-Redh. v. syn. Bauhinia thonningii Schumach. camel-foot; Chichewa: Chimimba, mukeke; English: camelthorn. Tree 3–10 m tall, bark rough, very dark brown; leaves simple, more or less round, shallowly 2-lobed, 30–170 mm long, hairy beneath; flowers white to pinkish; pods large, 130–280 mm long, woody, dark brown, hairless; in woodland and wooded grassland; 0–1,830 m. Widespread in tropical Africa. The dry pulpy flesh is edible, but almost all parts of this tree have some traditional use.

Malawi. Nyika Plateau, without locality or collecting details (Pate 1999).
Piliostigma thonningii
Del. Sandie Burrows

Wahlenbergia virgata
Del. Victoria Goaman

Cleome monophylla
Del. Sandie Burrows

Maerua juncea subsp. juncea
Del. Sandie Burrows
**Wahlenbergia capitata** (Baker) Thulin
*Lightfootia capitata* Baker [Nyika, Whyte s.n. (K, holo.)].
Annual or perennial herb with long branches from near the base, stems finely ribbed, hairy; leaves widely-spaced, linear-lanceolate, margins shallowly toothed; flowers in terminal clusters, blue or whitish, split deeply into 5 narrow lobes; in woodland or upland grassland, old cultivated areas, usually on sandy soils. Zimbabwe to D.R.C. and Tanzania.

**Wahlenbergia hirsuta** (Edgew.) Tuyn
*Lightfootia hirsuta* (Edgew.) E.Wimm. ex Hepper
Erect annual herb 40–300 mm tall, with several widely spreading, hairy branches; leaves few, oblanceolate to broadly elliptic, more or less hairy, shallowly toothed; flowers small, deeply lobed, blue to white; in grassland, woodland or sandy disturbed areas. Widespread in tropical Africa; also in Madagascar, India, and Nepal.
Malawi. Nyika National Park, with locality or collector (Mill 1979).

**Wahlenbergia huttonii** (Sond.) Thulin
*Lightfootia hycopodioides* Mildbr.; *Lightfootia huttonii* Sond.
Erect perennial herb or subshrub 10–500 mm tall with several stems from the base; leaves numerous, tightly packed, linear, margin entire; flowers small, few, terminal, blue or mauve; in montane grassland, in rocky places, rock cracks. South Africa, Malawi, and Tanzania.

**Wahlenbergia napiformis** (A.D.C.) Thulin
*Lightfootia napiformis* A.D.C.
Perennial herb with a few erect stems to 1 m tall; leaves linear to lanceolate, margin jagged; flowers blue, purple or yellowish to whitish, split almost to base into 5 linear lobes; in deciduous woodland, grassland, old cultivation, roadsides, usually on sandy soils. Ethiopia southwards through tropical Africa to Namibia and Zimbabwe.

**Wahlenbergia ramosissima** (Hems.l.) Thulin subsp. ramosissima
*Lightfootia ramosissima* (Hems.) E.Wimm. ex Hepper
Erect annual herb 100–500 mm tall, hairy or not; leaves linear to elliptic, finely toothed, hairy or not; flowers white or blue to yellowish, small, hypanthium 10-nerved; in upland grassland, in sand areas, roadsides. Malawi, Angola, Cameroon, and Nigeria.

**Wahlenbergia ramosissima** (Hems.l.) Thulin subsp. subcapitata Thulin
As for subsp. ramosissima, but the hypanthium bearing only 5 veins. Habitat similar. N. Malawi and S. Tanzania.

**Wahlenbergia subaphylla** (Baker) Thulin subsp. thesioides Thulin
*Lightfootia subaphylla* Baker
Erect perennial herb 200–500 mm tall, with few to many stems; leaves lanceolate, 2–7 mm long, margins jagged; flowers white or bluish, deeply split into linear lobes; in upland grassland, often appearing after burning. N. Malawi, Tanzania, and D.R.C.

**Wahlenbergia undulata** (L. f.) A.D.C.
Erect, slender, perennial or annual herb 200–900 mm tall; leaves alternate, scattered, more or less lanceolate, margin uneven; flowers large, bell-shaped, blue, white or yellow, deeply 5-lobed; in montane grassland, seasonally moist areas, rocky hillsides, often weedy in disturbed areas. South Africa to Angola and Tanzania; also on Madagascar.

**Wahlenbergia virgata** Engl.  ²
Erect branched perennial herb to 700 mm tall, leaves alternate, few, scale-like; flowers white or bluish or yellowish, with 5 spreading lobes; in upland grassland, often on eroded areas such as roadsides. Sudan and Ethiopia southwards to South Africa.

**Maerua juncea** Pax subsp. juncea  ²
Small shrub or climber to 10 m tall; leaves simple or 3-foliolate, leaflets oblong-elliptic, greyish; flowers cream, fluffy; fruit ellipsoid, to 30 mm long, smooth; in drier types of low-altitude woodland, but also at higher altitudes on territaria in Brachystegia woodland. Botswana and Zimbabwe to D.R.C. and Tanzania.

**Cleome macrophylla** (Klotzsch) Briq. var. macrophylla
This is a plant of low altitudes in dry woodland and it is unlikely that McClounie collected this species on Nyika.

**Excluded species**

**Cadaba kirkii** Oliv.
*Flora zambesiaca* 1(1): 211 (1960) states: ‘In lower-altitude, drier types of woodland or in thickers in river valleys or on termite mounds in Brachystegia woodland.’ It is doubtful whether this collection is from the Nyika Plateau.

**Maerua laureola** Pax
Small shrub to 10 m tall; leaves oblong, greyish; flowers cream, fluffy; fruit ellipsoid, to 40 mm long, smooth; in drier types of low-altitude woodland, but also at higher altitudes on territaria in Brachystegia woodland. Botswana and Zimbabwe to D.R.C. and Tanzania.

**Cleome monophylla** L. ²
Erect annual herb, usually branched; leaves pinnate, linear-lanceolate, hairy; flowers in a raceme, petals 4, pink to mauve with a yellow band across the upper two petals; fruit a capsule to 100 mm long; a weed occurring in many vegetation types and over a wide range of altitudes. Throughout much of Africa; also in India.
Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

**Cleome macrophylla** (Klotzsch) Briq. var. macrophylla
This is a plant of low altitudes in dry woodland and it is unlikely that McClounie collected this species on Nyika.

**Maerua laureola** Pax
Small shrub to 10 m tall; leaves oblong, greyish; flowers cream, fluffy; fruit ellipsoid, to 40 mm long, smooth; in drier types of low-altitude woodland, but also at higher altitudes on territaria in Brachystegia woodland. Botswana and Zimbabwe to D.R.C. and Tanzania.

**Maerua laureola** Pax
Small shrub to 10 m tall; leaves oblong, greyish; flowers cream, fluffy; fruit ellipsoid, to 40 mm long, smooth; in drier types of low-altitude woodland, but also at higher altitudes on territaria in Brachystegia woodland. Botswana and Zimbabwe to D.R.C. and Tanzania.

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Small shrub to 10 m tall; leaves oblong, greyish; flowers cream, fluffy; fruit ellipsoid, to 40 mm long, smooth; in drier types of low-altitude woodland, but also at higher altitudes on territaria in Brachystegia woodland. Botswana and Zimbabwe to D.R.C. and Tanzania.

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Small shrub to 10 m tall; leaves oblong, greyish; flowers cream, fluffy; fruit ellipsoid, to 40 mm long, smooth; in drier types of low-altitude woodland, but also at higher altitudes on territaria in Brachystegia woodland. Botswana and Zimbabwe to D.R.C. and Tanzania.

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Small shrub to 10 m tall; leaves oblong, greyish; flowers cream, fluffy; fruit ellipsoid, to 40 mm long, smooth; in drier types of low-altitude woodland, but also at higher altitudes on territaria in Brachystegia woodland. Botswana and Zimbabwe to D.R.C. and Tanzania.

**Maerua laureola** Pax
Small shrub to 10 m tall; leaves oblong, greyish; flowers cream, fluffy; fruit ellipsoid, to 40 mm long, smooth; in drier types of low-altitude woodland, but also at higher altitudes on territaria in Brachystegia woodland. Botswana and Zimbabwe to D.R.C. and Tanzania.
Cerastium glomeratum
Del. Sandie Burrows

Polycarpaea eriantha var. eriantha
Del. Sandie Burrows

Silene burchellii var. angustifolia
Del. Sandie Burrows

Stellaria mannii
Del. Sandie Burrows

Catha edulis
Del. Sandie Burrows

Myrianthus holstii
Del. Sandie Burrows
**CARYOPHYLLACEAE**

*Cerastium glomeratum* Thuill. ✿

Sticky mouse-eared chickweed

Annual herb with straggling ascending, slightly sticky stems to 450 mm long; leaves opposite, broadly ovate to elliptic, with long silky hairs on both sides; flowers in terminal clusters, petals white, sometimes absent; an introduced cosmopolitan weed of both temperate and tropical regions. Not recorded for Malawi in *Flora zambesiaca* (1961).

**Malawi.** Nyika National Park, with locality or collecting details (Mill 1979).

**Polycarpea eriantha** Hochst. ex A.Rich var. eriantha ✿

Erect annual herb to 190 mm tall; leaves opposite or whorled, basal leaves spathulate, stem leaves linear, hair-tipped, woolly at first, hairless with age; flowers subterminal, in arched, more or less horizontal inflorescences, petals very small (0.6 mm long); in open woodland and grassland on sandy soils, often a weed of cultivation. Widespread in tropical Africa.

**Malawi.** Nyika National Park, without locality of collecting details (Mill 1979); Nyika, Nyamkowa, 1903, *McCloune* 168 (K).

**Silene burchellii** Ott in DC. var. *angustifolia* Sond. ✿

Erect perennial herb to 700 mm tall, all parts more or less hairy; leaves in pairs, linear to oblanceolate; flowers single in leaf axils, tubular, with 5 bifid spreading or reflexed lobes, pink to purple; in *Brachystegia* woodland and grassland. Widespread in the eastern half of Africa; also in Arabia.

**Malawi.** Nyika National Park, without locality of collecting details (Petel 1999).


**Stellaria mannii** Hook.f. ✿

Weak procumbent or ascending herb, often rooting at the nodes, internodes with glandular hairs; leaves petiolate, ovate, with scattered hairs; flowers in lax terminal clusters, with 5 white bifid petals; on floor of evergreen forest. Zimbabwe to Cameroon and Ethiopia; also in Madagascar. This collection is the first record for Malawi (N.).

**Source.** Brummitt (1973).

**Malawi.** Nyika National Park, Kawozya, forest E. of summit, 1972, *Brummitt* & *Syngue* 216 (K, MAL, SRGH).

**CECROPIACEAE**

**Myrianthus holstii** Engl. ✿

*Myrianthus mildbraedii* Peter

Tree to 20 m tall, usually less, sometimes bearing stilt-roots; leaves palmate with 3–7 radiating leaflets, leaflets oblanceolate, margins regularly serrated-dentate, sparsely and minutely hairy, more so; flowers in paired branching clusters; fruit a segmented slightly angular cluster 50–80 mm long; leaves opposite, broadly ovate to elliptic, with long silky hairs on both sides; flowers white, unpleasantly scented; fruit a smooth, globose capsule, ca 7 mm long, seed glossy brown, aril partially covering seed; in forest margins and ravines; 900–1,700 m. Tanzania and Malawi.

**Source.** Brummitt (1973).


**Gymnosporia buxifolioides** Loes.

Evergreen tree 5–12 m tall, rarely to 25 m; leaves opposite, mainly elliptic, margin finely toothed; flowers in axillary sprays; fruit a pale yellow drupe 13–20 mm long, one- or two-seeded; in montane forest, riverine forest, and on termitaria in woodland; 1,000–2,000 m. Malawi northwards through much of tropical Africa.

**Source.** Brummitt (1973).

**Malawi.** Nyika National Park, by lower Mondwe River, 1972, *Brummitt* & *Syngue* 231 (K); Kasoma, 2,000 m, *Dowsett-Lemaire* 344 (*White* et al. 2001).

**Gymnosporia buxifolioides** Loes.

*Maytenus heterophylla* sensu N.Robson, pro parte, non *Gymnosporia heterophylla* (Eckl. & Zeyh.) Loes.

*Maytenus triphylla* A.Rich.

This is a synonym of *M. cafra* (DC.) Pax, a South African taxon with one locality in Zimbabwe. This collection is perhaps of the 3-foliolate form of *M. juncea* (above).

**Malawi.** Nyika National Park, without locality or collecting details (Patel 1999).


**Celastraceae**

**Cathar edulis** (Vahl) Forsk. ✿

Khat, bushman’s tea, *Catha edulis*, *xrhombus* *Catha edulis*

Shrub or small tree up to 6 m high, glabrous, spinescent; leaves yellowish green, coriaceous, with black dots owing to demataceous hyphomycetes, narrowly obovate-oblong to broadly ovate or ovate-oblong, reticulate veination obvious on both sides; flowers white, unpleasantly scented; fruit a smooth, globose capsule, ca 7 mm long, seed glossy brown, aril partially covering seed; in forest margins and ravines; 900–1,700 m. Tanzania and Malawi.

**Source.** Brummitt (1973).


**Zambia.** Nyika Plateau, Kangampande Mountain (Chowo Forest area), 1952, *White* 2560 (FHO, K).

**Gymnosporia buxifolioides** Loes.

*Maytenus buchananii* Loes.

Spiny shrub or small tree to 8 m high, sometimes scandent, leaves alternate, elliptic to oblong-cuneate, margin serrulate; fruit a red/pink 3-locular smooth capsule, seeds red-brown with a white or yellow aril at base; in riverine forest or disturbed mid-altitude forest; 900–1,600 m. Malawi and Zambia to Angola, W. Africa, Kenya, Sudan, and Ethiopia, also in Arabia. Malawi. Nyika Plateau, without locality or collecting details (Mill 1979).

**Gymnosporia buxifolioides** Loes.

Lax shrub or small tree to 6 m, bearing long slender thorns; leaves alternate, ovate to elliptic, margin sharply serrate, hairless; fruit a pinkish 3-
Elaeodendron buchananii
Del. Sandie Burrows

Gymnosporia buchananii
Del. Sandie Burrows

Maytenus undata
Del. Sandie Burrows

Parinari excelsa
Del. Sandie Burrows

Mystroxylon aethiopicum subsp. schlechteri
Del. Sandie Burrows
valved capsule borne in 2–3 in a long-stalked cluster; in understorey in evergreen forest and forest margins; 150–2,000 m. E. Cape to S. Tanzania; only in the submontane forests of the eastern escarpment of Nyika.

**Gymnosporia senegalensis** (Lam.) Loes.

*M. senegalensis* (Lam.) Exell

Chichewa: mchema

Shrub or small spiny tree to 8 m, sometimes losing its thorns with age; leaves glaucous-green; fruit a smooth red-pink, globose, 2-valved capsule, seeds red-brown with a fleshy pink aril; in deciduous woodland of various types and wooded grassland; 0–1,800 m. South Africa to Senegal, Spain, Egypt, Arabia, and India; also on Madagascar.

Malawi. Nyika Plateau, without locality or collecting details (Pate1 1999).

**Maytenus acuminata** (L.f.) Loes. var. *acuminata*

Shrub or tree to 15 m tall, without spines, leaves dark green, more or less glossy above, ovate to lanceolate, tip attenuate, with silky threads when broken gently; fruit a yellow to red 3-lobed capsule, seeds orange, com- completebly enclosed by the aril; in montane and running forest; 1,600–2,450 m. South Africa (Cape) to Cameroon and Kenya.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).


**Maytenus undata** (Thunb.) Blakelock

Evergreen tree to 12 m tall; leaves alternate, leathery, coarsely dentate, of- ten whitish below; in various types of forest and scrub, often near rivers. Widespread in Africa.

Malawi. Nyika National Park, without locality, Dowsett-Lemaire 378 (White et al. 2001); without locality or collecting details (Mill 1979).

**Mystroxylon aethiopicum** (Thunb.) Loes. subsp. *schlechteri* (Loes.) R.H. Archer

*Cassine aethiopica* Thunb.; *Elaeodendron aethiopicum* (Thunb.) Oliv. Chichewa: mpakate, mkokopa; Yao: mlanjilo, msongwe

Shrub or small evergreen tree to 12 m; leaves ovate to oblong, apex rounded, leathery, subglossy above, margins entire or finely toothed; fruit a smooth thin red berry 8–20 mm diameter; in montane forest, running forest, and in Brachystegia woodland; 0–2,450 m. Widespread in Africa, also on Madagascar and the Indian Ocean islands.


**Pleurostyla africana** Loes.

Chichewa: miwaja, msembe; Yao: mjawa, chikenka

Small evergreen tree 2–16 m tall; leaves opposite, lanceolate to elliptic, apex narrowly pointed; flowers in axillary clusters; fruit small, berry-like, green, 7–8 mm long; on rocky hillsides, territaria, deciduous (miombo) woodland, and forest margins; 420–1,100 m. Zimbabwe to Angola and Kenya. Not synonymous with the South African *P. capensis*, as suggested by Archer in White et al. (2001: 190).

Malawi. Nyika National Park, without locality or collecting details (Pate1 1999).

**Parinari curatellifolia** Planch. ex Benth.

**Parinari mobola** Oliv.; **Parinari curatellifolia** subsp. *mobola* (Oliv.)

R.A. Graham

mobola plum, hissing tree; Chichewa: maula tengo, mpundu; Tumbuka: mbula, mpemupu muala; Yao: chakate, mpemba

Small to medium-sized evergreen tree to about 15 m tall, bark rough grey; leaves elliptic oblong, rounded apex, venation prominent; fruit a large thinly-fleshed berry with large stone; scattered in miombo woodland or forming pure stands in grassland. Throughout tropical Africa. The fruit is edible and tasty; kernels of this or *P. excelsa* have been found in archaeological sites on Nyika.

Malawi. Nyika National Park, Mondwe Valley, 1972, Syngue 471 (K, MAL, SRGH, FHO); between Chisanga Falls and Kaparekezi Gate, 2000, Sabuben & Mwanyambo 6833 (MAL).


**Parinari excelsa** Sabine

Portuguese: Chichewa: mukanjaula; Tonga: mkangajula; Yao: mpemba, machende a nguluwe (fruits)

Large evergreen tree to 35 m tall, rather similar to *P. curatellifolia*, but the leaves with a distinct drip-tip; fruit similar; (often common) in evergreen forest, running forest, and as forest relics in grassland. Malawi and Zambia to Tanzania, Uganda, and W. Africa; also widely distributed in S. America.


**CHRYSOBALANACEAE**

**Magnistipula butayei** De Wild. subsp. *bangweolensis* (R.E.Fr.) F.White

Chichewa: mchena

Small to medium evergreen tree, bark rough, dark grey; leaves oblong-ovate, apex rounded or shortly pointed; flowers hairy, curved; fruit a drupe 50 x 30 mm, finely hairy; in high-rainfall miombo woodland, often on sandy soils. Malawi, Zambia, and Tanzania.


Garcinia buchananii Baker

granite garcinia; Chichewa: mpimbi; Tumbuka: musongwa; Yao: mpimbi, ntundira

Evergreen small tree 1.5–15 m tall, latex yellowish; leaves opposite, leath- ery, shortly pointed or mucronate; fruit a fleshy berry 20–25 mm diameter, 3-seeded; in woodland, running forest, and rocky hillsides; 500–1,700 m. Zimbabwe to Sudan and Tanganika. It is unclear if *G. buchananii* and *G. builleni*s Welw. ex Oliv. are synonymous or distinct species. Lebrun & Stork (1991) treat the two species as distinct from one another and we have followed them. White et al. (2001) treat *G. buchananii* as a synonym of *G. buillensis*.


Malawi. Nyika Plateau, below N. Rukuru Falls, Dowsett-Lemaire 326 (herbaria not stated).

**Garcinia kingaensis** Engl.

Chichewa: mlanjilo; Tonga: msongw; Yao: mtundira, ntundira

Evergreen tree 4–13 m tall, latex yellow; leaves opposite, thickly leathery, entire; fruit a fleshy berry 10–25 mm diameter, orange-yellow when ripe; an understorey tree in evergreen Afromontane forest and wooded ravines; 1,350–2,200 m. Zimbabwe to S. Tanzania. The ripe fruit is edible and tasty.


**CLUSIACEAE**

Plants of the Nyika Plateau 127
Pleurostylia africana
Del. Sandie Burrows

Magnistipula butayei subsp. bangweolensis
Del. Sandie Burrows

Garcinia buchananii
Del. Sandie Burrows

Harungana madagascariensis
Del. Sandie Burrows
Garcinia volkensii Engl.

Evergreen tree to 15 m tall, with a white latex; leaves opposite, rarely in whorls of 3, lanceolate to obovate, veins prominent, leathery; fruit a round 2- to 4-lobed berry, 10–30 mm diameter, yellow when ripe; understorey tree of evergreen mist forest; 1,300–2,000 m. Mozambique, Malawi, Zambia, E. D.R.C., Tanzania, and Kenya. White et al. (2001) controversially regard the South African G. gerrardii Harv. ex Sim as synonymous with G. volkensii.


Malawi. Nyika Plateau, eastern escarpment forests (Chapman & White 1970: 126); Panda Peaks, 1903, McClounie 151 (K).

Harungana madagascariensis Lam. ♦

Chichewa: mbulumu; Tumbuka: mtumu, musuwuswa; Yao: mtumu, ntunungu

Shrub or tree to 12 m tall, sap orange, turning red when dry; leaves opposite, ovate, dark green hairless above, rusty tomentose below; flowers in large terminal inflorescences, white, sweetly scented; fruit a small drupe (ca 4 mm), yellowish; in secondary forest-scrub, high-rainfall woodland, and forest margins; up to 1,800 m. Widespread in tropical Africa from Zimbabwe northwards. This is a typical quick-growing pioneer tree of low-altitude forests. An orange dye is obtained from the sap; the tree also has several medicinal uses. Probably confined to the lower eastern slopes of the plateau.

Malawi. Nyika National Park, without locality or collecting details (Mills 1979); Nchenchena, 1946, Brass 17379 (BM, K, PRE, SRGH).

Hypericum conjungens N.Robson

Shrub or perennial herb 0.3–1.5 m tall; leaves opposite, 20–30 x 6–12 mm, ovate, apex rounded, base rounded to amplexicaul; flowers numerous, yellow, red-tinted or red-veined, with dark marginal glandular dots; fruit a 3-valved capsule; montane grassland and forest margins; 1,800–2,550 m. Zambia and Malawi to E. D.R.C. and Kenya.


Hypericum Ilandii Choisy

Annual (?) or perennial herb with usually unbranched erect square stems 80–700 mm long; leaves opposite, widely-splayed, lanceolate to narrowly elliptic, 7–23 mm long, hairless; flowers yellow or orange with petals 6–8 mm long, without glands; fruit a 3- to 4-valved capsule; in marshy areas in grassland above 1,200 m. Widespread in Africa.

Malawi. Nyika National Park, without locality or collecting details (Mills 1979).

Hypericum peplidifolium A.Rich.

Perennial herb from an underground rootstock, stems round, tufted, prostrate to ascending, branched; leaves 3-26 x 2–17 mm, ovate to elliptic or linear-oblong, with numerous glandular dots; flowers rather few, petals 7–8 mm long, yellow, red-tinted, with glands along the margin; fruit fleshy, indehiscent; in a wide variety of habitats in high-rainfall areas, sometimes in disturbed ground; 1,100–2,000 m. In the highlands of eastern Africa (Ethiopia to Zimbabwe) and Angola.


Hypericum quartonianum A.Rich.

Tumbuka: kapyafol’don’mbame

Shrub or small tree to 4.5 m tall; leaves opposite, 35–90 x 5–27 mm, ovate-lanceolate to elliptic, hairless; flowers large, bright yellow, petals 20–40 mm long; fruit a 5-valved capsule; in scrub along rivers, rocky outcrops, montane grassland, and woodland; 1,120–2,250 m. Zambia and Malawi to Ethiopia.


Malawi. Nyika National Park, 8 km E. of Nganda, 1972, Brummitt, Munthali & Synge 149 (K, MAL).

Hypericum revolutum Vahl subsp. revolutum

Yao: ncheju

Much-branched shrub or small tree 1–6 m tall; leaves decussate, opposite, small, 20–30 x 2.5–6 mm, lanceolate, hairless; flowers large, bright yellow, petals 25–30 mm long; fruit a 5-valved capsule; in riverine scrub, forest margins, and mist belt thickets; 1,800–2,900 m. Widespread in the highlands of Africa; also on Madagascar, Réunion, the Comores, and Saudi Arabia.


Malawi. Nyika National Park, W. foot of Nganda, 1972, Brummitt & Synge 31 (K, MAL); Chelinda Dam, 2000, Chapama 200 (MAL).


Hypericum scioanum Chiov. ♦

Perennial herbs with procumbent square stems up to 300 mm long; leaves 3–9 x 2–5 mm, apex rounded, base coriaceous or amplexicaul; flowers few or single, yellow to orange, petals 2–6 mm long; fruit a normally 3-valved capsule; in damp places, usually in acid peat; 2,200–2,300 m. The southernmost and the only locality of this taxon in the Flora zambesiaca area; extending to Ethiopia.


Psorospermum febrifugum Schap ♦

Rhodesian holly; Chichewa: mtsiloti, mdima; Tumbuka: kabvundura; Yao: msilanyama

Shrub or small much-branched tree 1–6 m tall, bark flaking to corky; leaves opposite, ovate to elliptic, to 110 x 80 mm, dark green, hairless above, rusty or whitish below; flowers in terminal clusters, white to yellowish, red-streaked; fruit a bright red berry, ca 10 mm diameter; in open deciduous woodlands and wooded grasslands up to 1,950 m. Zimbabwe northwards to Sierra Leone and Sudan. This tree has a number of medicinal uses. In addition, when building a new village, the Chichewa bury some of its roots at the four corners of the village to protect it from witches and lions; hence this tree is respected and not cut for firewood (Williamson 1975).

Malawi. Nyika National Park, Chisanga Falls, 2000, Chapama 152 (MAL); without locality or collecting details (Patel 1999).

COMBRETACEAE

Combretum collinum Fresen.

Chichewa: nafitenjere; Tumbuka: chinama, kadale, kakunguni; Yao: mkolonganje

Small deciduous tree to 17 m, bark greyish, smooth to roughish, leaves opposite, alternate or whorled, more or less elliptic-oblong, greyish, hairy or not; fruit a 4-winged samara, minutely scaly or hairy, greyish purple; widespread in the woodlands of tropical Africa. Six subspecies are sometimes recognized within C. collinum; since we have not seen this collection, we are unable to establish its subspecific rank.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Combretum molle R.Br. ex G.Don ♦

velvet-leaved combretum

Deciduous tree 6–16 m tall, bark dark and rough, leaves opposite, elliptic to rounded, variously hairy; fruit a woody 4-winged samara, rursely when ripe; common in woodlands and savanna of many kinds. Widespread throughout the tropics of Africa; also in Arabia. The roots are used as a snakebite remedy and a decoction of the leaves drunk as an anthelmintic.


Hypericum scioanum
Del. Sandie Burrows

Psorospermum febrifugum
Del. Sandie Burrows

Combretum molle
Del. Sandie Burrows

Terminalia stenostachya
Del. Sandie Burrows
**Connaraceae**

**Rourea orientalis** Baill.

Byrsocarpus orientalis (Baill.) Baker

Chibesca: msototi; Tumbuka: kamenenambuzi; Yao: msalanjazi

Deciduous rhiizomatous shrub or small tree to 6 m tall, or scandent; leaves alternate, imparipinnate, leaflets more or less hairy, tips rounded, mucronate; yellowish white to yellow, slightly lemon-scented; flowers in clusters, to 2 cm long, pedicellate; fruit a woody 4-winged samara, 50 x 50 mm or larger, hairless; in woodland, or montane grassland, often on sandy soils. Widespread in Africa. Three subspecies are recognized, two of which occur in northern Malawi; the subspecific identity of this collection is unknown.

**Source.** Dowsett-Lemaire (1985).

**Malawi.** Nyika National Park, Kasaramba View, 2,345 m, 1970, Brummitt 10701 (K, MAL).

**Ipomoea involucrata** P.Beauv. var. involucrata

Annual or perennial with prostrate or twining stems to 18 m, leaves ovate-obcordate, to 135 x 130 mm, hairy; flowers pink with deep pink veining, purple; in woodland, grassland, forest margins, a weed in secondary woodland. 3 varieties are recognized, but it is uncertain to which this collection belongs.

**Source.** Flora zambesiaca 8(1): 76 (1987); White et al. (2001).

**Malawi.** Nyika Plateau, 12 km from Chelinda Camp on road to Katumbi, 2,260 m, 1970, Brummitt 10843 (K, LISC, MAL, PRE, SRGH, UPS); without precise locality, 2,200 m, Robinson 6248 (White et al. 2001: 213).

**Ipomoea linosepala** Hall.f. subsp. *linosepala*

Erect perennial much-branched herb from a thick rootstock, stems branched from the base, with yellowish hairs, leaves ovate to oblanceolate, 15–30 x 3–22 mm, densely hairy; flowers pink to cream with a purple centre; in woodland and montane forest; 1,280–1,550 m. Malawi, Zambia, and Angola.


**Malawi.** Chitipa District, just outside gate of Nyika National Park on Nthalire Road, 1,480 m, 1982, Brummitt, Polhill & Banda 16197 (K).

**Ipomoea alpina** Rendle

Perennial with several stems arising from a tuberous rootstock, stems to 1.7 m tall, all parts with bristly orange-brown hairs; leaves linear to oblanceolate, 17–90 x 1.5–11.8 mm; flowers solitary in upper leaf axils, narrowly conical, orange-yellow to white; in woodland, or montane grassland, often on sandy soils; 1,050–2,750 m. Mozambique, Malawi, Zambia, D.R.C., and Tanzania.


**Malawi.** Nyika Plateau, Chelinda Bridge, 1964, Hilliard & Butt 4391 (K, SRGH); N. Rukuru Valley, 2000, Winter 4122 (MAL).

**Ipomoea fulvicaulis** (Hochst. ex Choisy) Boiss. ex Hall.f.

Perennial herb from a woody rootstock, stems twining or erect, yellowish hairy, leaves ovate to elliptic-oblong, 30–115 x 10–45 mm; flowers mauve or purple, hairy; in woodland, open forest, sometimes along roadsides; to 1,750 m. Three varieties are recognized, but it is uncertain to which this collection belongs.


**Malawi.** Nyika National Park, without locality or collecting details (Papel 1999).

**Terminalia stenostachya** Engl. & Diels

Small deciduous tree 5–12 m tall, bark dark grey, very rough-fissured, leaves spirally-arranged, elliptic, apex rounded; fruit reddish, elliptic, hard, woody, flattened, surrounded by a broad wing; in miombo woodland, savanna, on heavy soils at lower altitudes. Zimbabwe to D.R.C. and Tanzania.

**Malawi.** Nyika National Park, without locality or collecting details (Papel 1999).

**Evoltulus alsinoides** (L.) L.

**Evoltulus digitata** sensu Baker & Rendle

Large glabrous perennial twiner, becoming woody, leaves circular, entire or 3- to 9-palmately lobed, 50–200 x 60–150 mm; flowers reddish purple or white to yellow, sweetly lemon-scented; fruit reddish brown, hard, woody, flattened, surrounded by a broad wing; in miombo woodland and forest, often on sandy soils. Mozambique, Malawi, Zambia, D.R.C., and Tanzania.


**Malawi.** Nyika National Park, without locality or collecting details (Papel 1999).

**Flora zambesiaca 8(1): 73 (1987); Lebrun & Stork (1997).**

**CONVOLVULACEAE**

**Convolvulus sagittatus** Thunb.

Variable perennial with hairy prostrate or twining stems from a woody rootstock; leaves variable, linear to ovate-triangular or oblong, base lobed (sagittate), usually hairy; flowers white or pink with a purple or red centre; in woodland, grassland, roadsides, in sandy soils. Widespread in Africa. Three subspecies are recognized, two of which occur in northern Malawi; the subspecific identity of this collection is unknown.

**Source.** Brummitt (1973).

**Malawi.** Nyika National Park, N.W. of Nganda, 1972, Synge 251 (K, MAL).

**Dichondra micrantha** Urban

Dichondra repens auct. afr., non J.R. & G.Forst.

Creeping herb with spaced kidney-shaped leaves on long stalks; flowers small, single, axillary on long stalks; weed in grassland, lawns, paths, and cultivated areas; 215–1,500 m. Widespread in Africa. Dichondra repens, a name previously used extensively in Africa, is confined to Australia and New Zealand (Lebrun & Stork 1997).


**Malawi.** Nyika Plateau, Kasaramba View, 2,345 m, 1970, Brummitt 10701 (BR, K, LISC, MAL, PRE, SRGH, UPS).

**Evolvulus alsinoides** (L.) L.

Evolvulus alsinoides L.

A variable annual or perennial hairy herb, with few to several stems from the base, leaves alternate, narrowly elliptic or lanceolate, 5–45 x 1–15 mm, with silky hairs; flowers very small, blue, rarely white; in woodland, grasslands, thicket margins, roadsides, and cultivated areas; 0–1,500 m. Widespread throughout the tropics.

**Malawi.** Nyika National Park, without locality or collecting details (Papel 1999).

**Ipomoea alpina** Rendle

Perennial with several stems arising from a tuberous rootstock, stems to 1.7 m tall, all parts with bristly orange-brown hairs; leaves linear to oblanceolate, 17–90 x 1.5–11.8 mm; flowers solitary in upper leaf axils, narrowly conical, orange-yellow to white; in woodland, or montane grassland, often on sandy soils; 1,050–2,750 m. Mozambique, Malawi, Zambia, D.R.C., and Tanzania.


**Malawi.** Nyika Plateau, Chelinda Bridge, 1964, Hilliard & Butt 4391 (K, SRGH); N. Rukuru Valley, 2000, Winter 4122 (MAL).

**Ipomoea fulvicaulis** (Hochst. ex Choisy) Boiss. ex Hall.f.

Perennial herb from a woody rootstock, stems twining or erect, yellowish hairy, leaves ovate to elliptic-oblong, 30–115 x 10–45 mm; flowers mauve or purple, hairy; in woodland, open forest, sometimes along roadsides; to 1,750 m. Three varieties are recognized, but it is uncertain to which this collection belongs.

**Source.** Flora zambesiaca 8(1): 76 (1987); White et al. (2001).

**Malawi.** Nyika Plateau, near Rest House, 1958, Robson & Fanishawe 615A (K, LISC).
mauve with a darker centre; in open and riparian woodland, savanna with trees, river-banks, swamps, sandy soils, and roadsides; 20–2,440 m. W. and E. tropical Africa, circumtropical; also in South Africa (KwaZulu-Natal).


**Zambia.** Nyika Plateau, 1903, McLounie 143 (K).

### Ipomoea recta De Wild.

Perennial herb with several erect or prostrate, densely hairy stems from a woody rootstock, leaves linear-lanceolate, 20–50 x 2–10 mm, hairy; flowers white or pink with a purple centre; in woodland, savanna or grassland, mainly in sandy soils; 700–1,300 m. Malawi, Zambia, D.R.C., and Tanzania

**Malawi.** Nyika National Park, without locality or collecting details (Mill 1979).

**Ipomoea tenuirostris** Steud. ex Choisy subsp. tenuirostris

### Cornaceae

**Cornus volkensii** Harms

Afrocrania volkensii (Harms) Hutch.

African dogwood; Yao: mjiwajwa

Evergreen tree to 30 m tall, bark rough, finely blocked, blackish; leaves simple, alternate, strongly veined, dark green, glabrous above, paler below, margins sharply toothed; fruit a small white berry; in upland forest, often a dominant canopy species; 1,200–3,000 m. Zimbabwe to Kenya and D.R.C.

**Source.** Flora zambesiaca 4: 637 (1978).

**Malawi.** Nyika National Park, Wovwe River, N. of Nganda, 1956, Chapman 295 (BM, K).


### Crassulaceae

**Crassula alba** Forssk. var. alba

**Crassula albovirens** A.Rich.

Perennial herb up to 0.9 m tall, similar to C. saginata; roots rarely thickened; sheaths of lower leaves usually less than 10 mm long; flowers usually red; sepal margins acutely dentate; petals acute, sometimes edentate; sheaths of lower leaves usually less than 10 mm long; flowers usually white or pink with a purple centre; in open and riparian woodland, savanna with grassland, 600–1,900 m. Zimbabwe to Cameroon and Ethiopia.

**Source.** Mill (1979).

**Malawi.** Nyika National Park, without locality, 1,900 m, 1967, Pawek 1388 (White et al. 2001: 213).

**Crassula globularioides** Britten

Mat-forming dwarf shrub up to 130 mm tall, similar to C. nyikensis and C. susuziensis; leaves sessile, up to 2 x 12 mm, oblong to subcircular-ovate, erect and densely imbricate, with a red tinge, at least one surface glabrous, margin entire with white cilia; flowering stems up to 100 mm long, not leafy apart from 1 or 2 pairs of small bracts, adpressed, retrorse hairy, inflorescence not more than 50 mm in diameter, flowers white, ca 4–5 mm long, sepals acute, ciliate along dorsal midline; on steep rock slopes in association with Coleochloa and Streptocarpus. Kenya to Malawi; apparently the first record for Malawi (N.).


**Crassula granenvikii** Mildlfr.

**Crassula erubescens** Bullock

Aquatic or terrestrial hairless perennial, with soft trailing base and tufted, erect stems; leaves 2–15 x 3.5 mm, pointed or blunt-tipped; flowers pinkish with darker centres, 2–3 mm in diameter; deep water in permanent streams or in water, at high altitudes. N. Malawi, Tanzania, Uganda, Kenya, Rwanda, Burundi, D.R.C., and Ethiopia.


**Malawi.** Nyika National Park, Lake Kaulume, 1959, Richards 10467 (K).

**Crassula lanceolata** (Eckl. & Zeyh.) subsp. denticulata (Brenan) Tölkén

**Crassula schomperi** Fisch. & C.A.Mey. subsp. transvaalensis (Kuntze) R.Fernandes var. denticulata (Brenan) R.Fernandes

Hairless soft perennial rarely higher than 100 mm, stems ca 1 mm diameter, erect or spreading, leaves very narrowly triangular to linear, 4–8 mm long, with sharp terminal awn, lower leaves distinctly longer than upper ones; flowers pale yellowish green, 1–2 mm diameter, in sessile axillary dichasium; in exposed positions usually on shallow soil on top of rocks, rarely sheltered under overhanging rocks. Malawi and South Africa.


**Malawi.** Nyika National Park, 2,400 m, Robinson 4521 (K); Fingira Rock, 2000, Winter 4225 (MAL).

**Crassula nyikensis** Baker f.

**Crassula wyatteana** Schoul. [Nyika Plateau, 1896, Wylte s.n. (B?, hol., K, iso.)]

Low, much branched dwarf shrub similar to C. globularioides (perhaps only an ecological variant); leaves sessile, up to 12 x 10 mm, broadly ovate to subcircular, erect and densely imbricate, margin entire with contiguous white cilia; flowering stems up to 100 mm long, leafy, flowers white, ca 4 mm long; on bare gneiss and granite rocks. Endemic to the Nyika Plateau, or almost so.


**Malawi.** Highest ridges of Nyika mountains, 1896, Whyte 491 (K); Mpopoti Peak, 2000, Izidine 65 (MAL, LMA).

**Crassula swaziensis** Schönfl.

Much branched dwarf shrub up to 200 mm tall, similar to C. globularioides; inflorescence axes usually densely hispid, leaves usually hairy on both sides, rarely glabrous, cilia very short; inflorescence usually more than 50 mm in diameter, sepals subobtuse, hispid outside; shallow soil on rocks. May have been confused with C. globularioides prior to Fernandes (1983), but is tentatively retained here in the light of Fernandes’ remarks concerning C. illichiana Engl. from Tanzania and Uganda being a possible variety of C. susuziensis, and the possibility that Nyika material may match this.


**Malawi.** Nyika National Park, without locality or collecting details (Mill 1979).

**Crassula vaginata** Eckl. & Zeyh.

**Crassula albovirens** var. nyikensis Schoul. [Type from Nyika; see spec. below]

Perennial herb up to 0.5(0.9) m tall, similar to C. alba, roots tuberous;
Ipomoea mauritiana
Del. Sandie Burrows

Cornus volkensii
Del. Sandie Burrows

Crassula alba var. alba
Del. Victoria Goaman

Kalanchoe crenata
Del. Sandie Burrows
leaves usually linear, the sheaths of lower leaves 10 (rarely less) to 30 mm long; flowers cream or pinkish white, sepals not dentilicate, either entire or with obtruse marginal papillae, petals smooth, rounded or obtruse and indistinctly mucronate, anthers suborbicular, 0.3–0.5 mm long; in open grassland or among rocks on mountain slopes up to 2,680 m. Nigeria and Cameroon to Ethiopia, Angola, and South Africa. Source. Flora zambesiaca 7(1): 25 (1983).


Kalanchoe crenata (Andrews) Haworth ❖
Perennial succulent herb 0.3–2 m tall, glabrous to slightly glandular hairy; petiole 10–30 mm, lamina ovate to oblong, 30–130 x 20–120 mm wide, with blunt teeth; flowers orange to scarlet-orange or brick red in corymbs, sepals attenuate, corolla tube flask-shaped, 11.5–22 mm long, lobes 4.5–7.5 x (2.5)3.5–5 mm; in sunny places at edge of forests, along roadsides, by streams. W. Africa, Uganda to South Africa, and apparently naturalised in Egypt; also in tropical America, India, and Malaysia. Source. Brummitt (1973); Dowsett-Lemaire (1985).


Kalanchoe lacinia (L.) DC
Perennial or biennial herb to 1.2 m tall; indistinctly glandular; leaves divided; sepals not attenuate; corolla 12–14(16) mm long, yellow to yellow-green or orange, lobes 3.5–4.5 x 1.5–1.75 mm; stony places in shady situations, in sandy or humus-rich soil. Angola, Namibia, Ethiopia to Zambawe; also in India. Source. Flora zambesiaca 7(1): 27 (1983).


Excluded species
Kalanchoe lanceolata (Forsk.) Persoon
Similar to K. crenata, but has sessile leaves and a hairy corolla, and occurs in drier areas. The fact that Mill (1979) did not list K. crenata suggests that he misidentified it using this name.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

CUCURBITACEAE

Coccinea adenois (A.Rich.) Cogn. ❖
Chickelea: chinkhaka, twifwi; Ngom: mphwimpfhi; Tonga: mleza
Stems annual, rising from a woody rootstock; leaves variable, broadly ovate, – lobed or palmately 3- to 5-lobed, 19–70 mm diameter, smooth, – 110 mm, deep green, – 10 in axillary clusters, roundish, hairless, bright red or yellow; on margins of forest; 800–2,100 m. South Africa to Ghana and N.E. Africa.

Malawi. Nyika Plateau, without locality or collecting details (Mill 1979).

Coccinea mildbraedii Harms
Scandent climber to 10 m or more; leaves ovate to orbicular, palmately 3- to 5-lobed, glabrous, margins finely toothed; flowers pale orange-yellow; fruit red, 100–195 x 20–50 mm, cylindrical (smooth); upland rainforest, riverine forest or wet areas; 1,350–2,250 m. Uganda, D.R.C., Tanzania, and northern Malawi; Nyika is probably its southern limit.


Zambia. Nyika Plateau Valley, ca 4 km S.W. of Rest House (erroneously listed as Malawi in Flora zambesiaca, 1958, Robson & Angus 248 (BM, K, LISC, MAL, PRE, SRGH).

Momordica friesiorum (Harms) Jeffrey
Perennial herb with stems prostrate or climbing to 4 m, with tendrils; leaves compound, pedately 3- to 5-foliolate; flowers pale yellow; fruit ellipsoid, ca 60 x 20 mm, longitudinally winged or ridged, orange and splitting into 3 valves when ripe; in upland forest. From Ethiopia to Tanzania and northern Malawi. Known only from the Nyika in Malawi. Source. Flora zambesiaca 4:421 (1978).


Oreosyce africana Hook.f. ❖
Small scandent herb with stems prostrate or scandent to 3 m; leaves ovate to triangular, entire or palmately 3- to 5-lobed; flowers yellow to orange; fruit ellipsoid, 15–27 x 13–21 mm, densely set with protruberances of various lengths, hairy, green or yellow; on margins of forest; 800–2,100 m. South Africa to Angola, Cameroon, and Ethiopia; also on Madagascar.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Trophomeria macrocarpa (Sond.) Hook.f. ❖
Stems prostrate or scandent, to 6 m; leaves broadly ovate, cordate, 5-lobed; flowers olive-green to greenish yellow; fruit 40–65 x 20–30 mm, ellipsoid, beaked, bright orange or red; in wooded grassland and woodland, 600–2,400 m. Throughout most of tropical Africa. Source. Flora zambesiaca 4: 457 (1978).


Zehneria scabra (L.f.) Sonder subsp. scabra ❖
Zehneria oligosperma Jeffrey
Stems prostrate or scandent, to 6 m long; leaves ovate to broadly ovate, unlobed or palmately 3- to 5-lobed, 19–110 x 20–110 mm, deep green, scabrid-punctate above, paler, sometimes hairy below, margins toothed, petiole 7–7 mm; flowers white, turning yellowish, petals 15–35 mm long; fruit 1–10 in axillary clusters, roundish, hairless, bright red, 8–10 mm diameter; in montane forest, swamp forest, riverine forest, and pine planta-
Coccinea adoensis
Del. Sandie Burrows

Cucumis hirsutus
Del. Sandie Burrows

Lagenaria abyssinca
Del. Sandie Burrows

Momordica foetida
Del. Sandie Burrows
Oreosyce africana
Del. Sandie Burrows

Trochomeria macrocarpa
Del. Sandie Burrows

Zehneria scabra subsp. scabra
Del. Sandie Burrows

Cuscuta kilimanjari var. kilimanjari
Del. Sandie Burrows
Zehneria thwaitesii (Schweinf.) Jeffrey
This specimen, collected by Wakefield at ‘Nyika’, is stated to be in Malawi, but Wakefield, a missionary in Mombasa from 1862 to ca 1889, never visited Ma-
lawi; there are areas in both Kenya and Tanzania that have, at one time or
another, been termed ‘Nyika’. This record, therefore, is certainly an error.

CUSCUTACEAE

Cuscuta kilimanjari Oliv. var. kilimanjari  
Leafless parasitic plant with masses of string-like yellowish stems to 1.5 m
thick; flowers in clusters, 4–6 mm long, 4–6 mm broad, pale cream; para-
sitic on various hosts, mainly shrubby, often on Acanthaceae, on floors and
edges of lowland and upland rainforest. From Ethiopia throughout eastern
Africa to South Africa, mostly above 1,000 m. This species is readily recog-
nised by its relatively large flowers.
Malawi. Nyika National Park, Chelinda to Zambia Rest House, 2,200 m,
1967, Michael & Hinchely 77 (SRGH).

DROSERACEAE

Drosera burkeana Planch.
sundew
Small perennial herb, without a stem; leaves in a compact basal rosette,
oblanceolate, densely set with long-stalked sticky glands; flowers mauve,
pink or white, in a few-flowered, long-stalked inflorescence; in marshes,
swamps, and around springs. From South Africa to D.R.C. and Uganda;
also on Madagascar.
Malawi. Nyika National Park, without locality or collecting details (Mill
1979).

EBENACEAE

Diospyros abyssinica (Hiern) F.White subsp. 
chapmaniorum F.White
Large evergreen tree 18–30 m tall, bark blackish, rough; leaves alternate,
oblanceolate-elliptic, 30–50 x 12–20 mm, shiny above; flowers axillary,
Cephalaria integrifolia
Del. Sandie Burrows

Scabiosa columbaria
Del. Sandie Burrows

Monotes discolor var. cordatus
Del. Sandie Burrows

Drosera madagascariensis
Del. Sandie Burrows
Diospyros whyteana
Del. Sandie Burrows

Euclea racemosa subsp. schimperi
Del. Sandie Burrows

Agarista salicifolia
Del. Sandie Burrows

Erythroxylum emarginatum
Del. Sandie Burrows

Erica microdonta
Del. Sandie Burrows
smallish, creamy or white; fruit ellipsoid, shiny, to 14 x 9 mm, calyx forming a shallow cup; in evergreen montane forest, usually a canopy species; 1,400–2,220 m. *Flora zambesiaca* endemic, known only from Mozambique, Malawi, and Zambia (Nyika).


**Malawi.** Nyika National Park, Kajafa forest, without collecting details (Dowsett-Lemaire 1985: 314).

**Zambia.** Nyika Plateau, headwaters of Chire River, 1952, White 2758 (BM, FHO).

**Diospyros whYTEana** (Hiern) F.White

*Royena whYTEana* Hiern; *Royena lucida* L.

Evergreen shrub or small tree to 13 m, bark smoothish; leaves alternate, lanceolate to oblong-elliptic, base rounded, shiny, but with scattered hairs, particularly along the margins; flowers single, axillary, small, white; fruit a red or maroon berry completely enclosed by the papery brown calyx; in forests, forest margins, riverine forest, and bush clumps. From South Africa to Zambia and Tanzania.


**Malawi.** Nyika National Park, Jalawe Viewpoint, 2000, Thera 3080 (MAL); Zovochipolo Forest, 2000, Burrows & Burrows 6902 (PRE).

**Zambia.** Nyika Plateau, 9 km S.W. of Rest House, 1958, Robson 355 (BM, FHO, K, SRGH).

**Erica benguelensis** (Engl.) G.Don

*Agarista salicifolia* (Comm. ex Lam.) Hook.f. ex Oliv.

*Tumubuka:* mazinga; *Suku:* mkorwe

Evergreen tree to 12 m tall; leaves alternate, simple, narrowly lanceolate to narrowly elliptic, 20–120 x 8–35 mm, more or less hairless, glossy above; flowers in axillary racemes, white, *Erica*-like; fruit a small brown capsule; in riparian forest and on the margins of evergreen forest, occasionally scattered in grassland, 1,375–2,300 m. On high ground in Malawi and Zambia and northwards throughout tropical Africa; also on Madagascar and in the Mascarene islands. On the Nyika, *Agarista* is the food-plant of the endemic butterfly *Charaxes dewsetti* (White et al. 2001).


**Malawi.** Nyika Plateau, Lake Kaulume, 2,200 m, 1958, Robson 278 (BM, K, LISC, SRGH); near juniper Forest, 1965, Lawton 1295 (FHO); Nchenchena Stream at edge of Nyika Plateau, 1960, Adlard 320 (FHO).


*Philippia benguelensis* (Welw. ex Engl.) Britten; *Philippia malianjusi* Britten & Rendle

As for var. *benguelensis*, but the leaves more densely hairy on both surfaces and flowers white. Mozambique, Malawi, Zambia, and S.W. Tanzania. It seems suspicious that both this and the next variety occur together in the Chwowa area of the Zambian Nyika.

**Source.** *Flora zambesiaca* 7(1): 180 (1983); White et al. (2001).

**Malawi.** Nyika Plateau, Kasaramba, 2,300 m, 1946, Brass 17251 (BM, K, PRE, SRGH).

**Zambia.** Nyika Plateau, Chowo Rock, 1974, Paweek 7942 (SRGH).

**Erica benguelensis** (Welw. ex Engl.) E.G.H.Oliv. var. *benguelensis* (Welw. ex Engl.) Britten

Shrub or tree 1–6 m tall; leaves small, in whorls of 4, to 4.5 x 0.7 mm, thinly hairy to hairless; flowers in clusters of 4–12 at branch tips, cup-shaped, green, sometimes tinged pink; in open places within and on the edges of *Brachystegia* woodland and montane forest, in secondary scrub, and scattered or forming thickets in montane grassland. From Zimbabwe to Angola, Uganda, and Tanzania.


**Malawi.** Nyika Plateau, 2,300 m, 1946, Brass 17251 (BM, K, PRE, SRGH);

**Euclea racemosa** Mur. subsp. *schimperi* (A.D.C.) F.White

**Euclea schimperi** (A.D.C.) Dandy

Evergreen shrub or small tree; leaves alternate to opposite, 4 times as long as broad, margins slightly or not wavy, surface dark glossy green; flowers in small clusters, creamy; fruit a small hard berry, 6–8 mm in diameter; in lowland or mid-altitude forest, riverine forest, and termittaria in miombo woodland; 90–2,220 m. Eastern Africa from Yemen to South Africa.

**Source.** Brunmitt (1973).

**Malawi.** Nyika National Park, by lower Mondive River, 1972, Brunmitt & Synge 228 (FHO, PRE).

**Euclea sp. cf. *divinorum*** Hiern

Tree to 18 m tall, usually less, mostly near edges and in light shade of montane forest and *Juniperus* forest to 2,220 m (Dowsett-Lemaire in White et al. 2001: 229); Fries (1992: 219). True *E. divinorum* is a species of hot, low-altitude deciduous woodland, a habitat which it occupies in Lenguwe in southern Malawi (White 1983: 299 4) and it is almost impossible for one taxon to span this full range of environmental extremes. We therefore regard the Nyika material as belonging to a distinct taxon, perhaps allied to *E. dunrobinii*, or to the similar and very variable *E. crispa* that occurs in certain forest types and is recorded from the Mafinga Mountains to the north.

**Malawi.** Nyika Plateau, without precise locality or linked collection (Dowsett-Lemaire 1985, White et al. 2001).

**ERICACEAE**
in clusters at branch tips, purplish pink; in damp montane grassland on margins of marshes, 2,350 m. Kenya, Tanzania, and Malawi (Nyika).

**Vaccinium** sp. (tree)

We have no details of this collection, nor have we seen any material from the Nyika region. In addition, Vaccinium is not recorded from N. of Mt. Mulanje in Malawi (Ross 1983: 161, White et al. 2001: 236) and we have therefore excluded it until such time as its occurrence can be confirmed for the Nyika.

**Malawi.** Nyika National Park, without locality or collecting details (Patel 1999).

**ERYTHROXYLACEAE**

**Erythroxylum emarginatum** Thonn. ✷

*Chichewa:* kapufupa, chikango, mugumo; *Yao:* mlungamo, mpweche

Shrub or small evergreen tree 1–9 m tall; leaves simple, alternate, oblanceolate, obovate or rhombic, entire, hairless, apex notched; flowers axillary, single, white or pink; fruit a small bright red berry; on rocky out-

**Malawi.** Nyika National Park, without locality or collecting details (Patel 1999).

**Choristylis rhamnoides** Harv. ✷

*Choristylis ulugurensis* Mildbr.

Straggling or scandent shrub or small tree with numerous slender trailing stems; leaves simple, alternate, more or less ovate or elliptic, serrate, fairly shiny above; flowers cream, in axillary clusters; fruit a small dehiscent cap-

**Malawi.** Nyika National Park, without locality or collecting details (Patel 1999).

**Acalypha chinoides** S.Moore

*Chichewa:* mpalchulu

Deciduous, much-branched, often straggling shrub or small tree to 5 m, branches hairy, arching; petiole 2–20 mm, leaves ovate-lanceolate to rhombic-lanceolate, thinly hairy, margins finely toothed; female and male flowers on separate plants; in understorey of evergreen forest, in closed miombo woodland, gully and riverine forest; 500–1,675 m. From Zimbabwe to D.R.C. and Tanzania.

**Malawi.** Nyika National Park, without locality or collecting details (Patel 1999); Thazima Camp, 2000, Chapama 173 (MAL).

**Erythroxylum emarginatum** Thonn. ✷

*Chichewa:* kapufupa, chikango, mugumo; *Yao:* mlungamo, mpweche

Shrub or small evergreen tree 1–9 m tall; leaves simple, alternate, oblanceolate, obovate or rhombic, entire, hairless, apex notched; flowers axillary, single, white or pink; fruit a small bright red berry; on rocky out-

**Malawi.** Nyika National Park, without locality or collecting details (Patel 1999).

**ERYTHROXYLACEAE**

**Erythroxylum emarginatum** Thonn. ✷

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Shrub or small evergreen tree 1–9 m tall; leaves simple, alternate, oblanceolate, obovate or rhombic, entire, hairless, apex notched; flowers axillary, single, white or pink; fruit a small bright red berry; on rocky out-

**Malawi.** Nyika National Park, without locality or collecting details (Patel 1999).

**Choristylis rhamnoides** Harv. ✷

*Choristylis ulugurensis* Mildbr.

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**Malawi.** Nyika National Park, without locality or collecting details (Patel 1999).

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Deciduous, much-branched, often straggling shrub or small tree to 5 m, branches hairy, arching; petiole 2–20 mm, leaves ovate-lanceolate to rhombic-lanceolate, thinly hairy, margins finely toothed; female and male flowers on separate plants; in understorey of evergreen forest, in closed miombo woodland, gully and riverine forest; 500–1,675 m. From Zimbabwe to D.R.C. and Tanzania.

**Malawi.** Nyika National Park, without locality or collecting details (Patel 1999); Thazima Camp, 2000, Chapama 173 (MAL).

**Acalypha chinoides** S.Moore

*Chichewa:* mpalchulu

Deciduous, much-branched, often straggling shrub or small tree to 5 m, branches hairy, arching; petiole 2–20 mm, leaves ovate-lanceolate to rhombic-lanceolate, thinly hairy, margins finely toothed; female and male flowers on separate plants; in understorey of evergreen forest, in closed miombo woodland, gully and riverine forest; 500–1,675 m. From Zimbabwe to D.R.C. and Tanzania.

**Malawi.** Nyika National Park, without locality or collecting details (Patel 1999); Thazima Camp, 2000, Chapama 173 (MAL).

**Acalypha ornata** A.Rich.

*Acalypha moggii* Compton

*Chichewa:* mpalchulu; *Yao:* chipasulu

Large, much-branched herb, vine, large shrub or small tree to 5 m, stems hairy, often purplish; petioles 20–150 mm long, leaves ovate to ovate-lanceolate, tip caudate-acuminate, margins finely toothed, 5- to 9-nerved from the base, hairy throughout; in understorey and margins of submontane evergreen forest, in medium to high-altitude riverine forest, also in swamp forest (*mushitu*), and submontane grassland; 900–3,050 m. Mozambique, Malawi and Zambia to Angola, Sudan, and Ethiopia.


**Malawi.** Nyika National Park, Zovochipolo Forest, 2000, Burrows & Burrows 6989 (MAL, PRE, SRGH, UZL).

**Zambia.** Nyika Plateau, c. 3 km S.W. of Rest House, 1958, Robson & Angus 272 (BM, FHO, K, LISC, PRE, SRGH); western part of Park, 2000, Phiri 3969 (UZL).

**Acalypha psilostachya** Hochst. ex A.Rich. var. *psilostachya*

Erect or scandent woody subshrub to 3 m tall, stems hairy; petioles slender, to 110 mm long, leaves ovate to ovate-lanceolate, tip caudate-acuminate, margins finely toothed, 5- to 9-nerved from the base, hairy throughout; in understorey and margins of submontane evergreen forest, in medium to high-altitude riverine forest, also in swamp forest (*mushitu*), and submontane grassland; 900–3,050 m. Mozambique, Malawi and Zambia to Angola, Sudan, and Ethiopia.


**Malawi.** Nyika National Park, Zovochipolo Forest, 2000, Burrows & Burrows 6899 (MAL, PRE, SRGH, UZL).

**Zambia.** Nyika Plateau, c. 3 km S.W. of Rest House, 1958, Robson & Angus 272 (BM, FHO, K, LISC, PRE, SRGH); western part of Park, 2000, Phiri 3969 (UZL).

**Acalypha psilostachya** Hochst. ex A.Rich. var. *glandulosa*

Hutch.

As for var. *psilostachya*, but bearing stalked or subsessile glands on the branches, flowering stalks and female flowering bracts. It is somewhat doubtful whether this is a sound and constant character upon which to base a variety.


**Malawi.** Nyika Plateau, 1896, Whyte s.n. (K, holo.).

**Acalypha villicaulis** Hochst. ex A.Rich. ✷

*Acalypha senensis* Klotzsch; *Acalypha petiolaris* Hochst. ex Krauss

*Chichewa:* chigaga, nyalitsa, kamchidada; *Yao:* nyalisi, chigaga

Perennial herb or subshrub to 2 m tall, with numerous erect stems from a woody rootstock; petioles 5–60 mm, leaves ovate to oblong or linear-lanceolate, 7-nerved from the base, hairy on both surfaces, margins serrate; in various types of woodland, in grassland, dambos; 30–2,133 m. Widespread in tropical Africa from Senegal and Ethiopia to South Africa. Used medicinally to cure diarrhoea and kill intestinal worms.

**Malawi.** Nyika National Park, without precise locality or collecting details (Patel 1999); Livingstonia Escarpment, 1973, Pawek 7686 (K, MAL, MO, SRGH, UC).
**Choristylis rhamnoides**
Del. Sandie Burrows

**Bridelia bridelifolia**
Del. Sandie Burrows

**Acalypha villicaudis**
Del. Sandie Burrows

**Clutia abyssinica var. abyssinica**
Del. Pat Halliday
**Euphorbiaceae**

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Malawi, Nyika National Park, road from Rest House to Thazima Gate, 2000, Burrews & Marooy 6837 (Buffelskloof Herb.:) Lusero, Chapman 2003 (White et al. 2001: 244).

**Bridelia cathartic** Bertol.f. *Chiclyns*: ntundi, mbalamba; *Tambuka*: puluzelamani; *Yao*: ntundi, mtundi, mbalamba

Variable deciduous shrub or small tree often with arcing branches, trunk spineless; leaves 10–120 x 5–70 mm, ovate-elliptic, often slightly blue-green above, hairless; fruit 11 x 10 mm, 2-seeded, purple to blackish when ripe; in various types of woodland and scrub. Widespread in Africa. A number of subspecies, varieties, and forms are recognized within this species; it is not known to which this collection belongs.

**Source.** Brummitt (1973).

**Malawi.** Nyika National Park, Sawi Valley, 1972, Syne 415 (K, MAL).

**Clutia abyssinica** Jaub. & Spach var. **abyssinica** lightwing bush; *Tambuka*: milumila; *Yao*: chiuta

Erect lax shrub to 6 m tall, stems and leaves glabrous to thinly hairy, but soon more or less hairless; petioles 10–35 mm long, leaves 20–160 mm long, ovate to elliptic-lanceolate, base tapering to rounded; in submontane evergreen forest margins and clearings, understorey tree of high-rainfall woodland; 1,675–2,375. Malawi, Zambia, and S. Tanzania.


**Malawi.** Nyika National Park, 5 km N.E. of Nganda, 1972, Syne 291 (K, MAL, SRGH, FHO); Juniper Forest Reserve, 2000, Chikani 504 (MAL).

**Zambia.** Lundazi, Nyika plateau, Kangampande Mountain (Chosvo Forest), 1952, White 2532 (FHO).

**Clutia abyssinica** Jaub. & Spach var. **pedicellaris** (Pax) Pax

As for var. **abyssinica**, but with the stems and leaves evenly hairy; on steep rocky slopes and ridge tops, in grassland and savanna, in miombo woodland, on margins of evergreen forest, in rainforest regrowth, and in montane forest; 720–2,300. Zimbabwe to Ethiopia.


**Malawi.** Nyika plateau, 1968, Simon, Williamson & Ball 1805 (K, MAL, SRGH).

**Zambia.** Nyika plateau, 1977, Pawek 12913 (K, MO).

**Clutia paxii** Knauf ex Pax *Clutia gracilis* Hutch.; *Clutia phyllanthoides* S.Moore

Much-branched shrub to 2.5 m tall, thinly hairy; petioles 0.5–3 mm, leaves 5–30 x 3–15 mm, obovate to elliptic-lanceolate, tip rounded or blunt, thinly hairy or not on both surfaces; in submontane evergreen forest margins, kloof and gully forest, and submontane grassland with ericoid scrub; 1,525–1,925. A near-endemic, also found in the Misuku Hills of northern Malawi. In the Nyika material probably belongs to var. **robusta**.


**Malawi.** Nyika plateau, without locality or collecting details (Mill 1979).

**Zambia.** Nyika plateau, 1958, Robson & Angus 258 (BM, K, LISC, SRGH).

**Clutia whytei** Hutch. var. **whytei** *Chiclyns*: msawasa; *Yao*: missimanga

Perennial shrublet to 1.2 m tall, hairless at first, hairless with age; petiole 2–5 mm long, ovate-roundish to ovate-lanceolate, 20–55 mm long, base rounded, tip blunt to tapering; in upland grassland and high-rainfall Brachystegia woodland; 1,675–2,375. Malawi, Zambia, and S. Tanzania.

**Malawi.** Nyika National Park, Mpopoti Hill, 2000, Salubeni & Mwanyambo 6781 (MAL).

**Zambia.** Nyika, without precise locality, 1962, Fanshawe 7390 (K, NDO).

**Croton macrostachyus** Hochst. ex Del. *Chiclyns*: mbwani; *Tambuka*: muworwo, muludalomo; *Yao*: nakawalika, mtutu, chwilalika

Tree to 25 m, briefly deciduous, crown spreading, bark smoothish, pale greyish; petioles 30–120 mm long, leaves ovate, 60–180 x 40–140 mm, base more or less cordate, tip acuminate, margins shallowly toothed; fruit 3- to 4-lobed, to 10 x 15 mm, set with hairs and scales; in riverine and evergreen forest, high-rainfall miombo woodland, and wooded grassland; 825–2,100. Widespread in Africa from Zimbabwe northwards; also on Madagascar.


**Malawi.** Nyika plateau, Kasyaula, and Zovochipolo Forests (Dowsett-Lemaire 1985: 314).

**Zambia.** Nyika plateau, Chowo forest, 1975, Pawek 10036 (K, MAL, MO, SRGH, UC).

**Drypetes gerrardii** Hutch. forest ironplum; *Sukwa*: mutaga

Small to large evergreen tree 3–30 m, bole fluted to buttressed, bark smooth to flaking; leaves ovate to rhombic-elliptic, 20 mm–1.74 m long, base asymmetric, tip tapering, margin finely toothed; fruit roundish, more or less bilobed, finely hairy; a subcanopy tree in evergreen forest; 780–2,000. Eastern Africa from South Africa to Kenya. Four varieties are recognized; the Nyika material probably belongs to var. **gerrardii**.


**Erythrococca menyhartii** (Pax) Prain northern twin red-berry

Straggly shrub to 3 m tall, bark pale grey, smooth; flaking; leaves 20–100 x 10–60 mm, ovate-lanceolate to elliptic; base tapering, margin widely and irregularly serrate with yellowish green hairs on both surfaces; fruit small, 3-lobed, hairy; in woodland, thicket, and forest margins; 300–1,500. South Africa to Angola, Zambia, Tanzania, and Kenya.


**Zambia.** Nyika, without precise locality, 1962, Fanshawe 7340 (K, NDO).

**Erythrococca trichogyne** (Müll.Arg.) Prain var. **psilogene** Radcl.-Sm.

Erect much-branched shrub to 6 m, bark light brown, rough; leaves 10–110 x 5–5.5 mm, elliptic to elliptic-ovate, coarsely serrate to subentire, more or less hairless above, finely hairy below; fruit 2-lobed, hairy or not; in the understory and on margins of montane evergreen rainforest; 1,770–2,200. A near-endemic, also found in the Misuku Hills of northern Malawi. Var. **trichogyne** occurs from Ethiopia to South Africa, but not in northern Malawi.


**Malawi.** Nyika plateau, 1974, Pawek 7878 (K, MAL, MO, SRGH, UC).

**Zambia.** Nyika plateau, Chowo forest, 1982, Dowsett-Lemaire 265 (K); without locality, 1962, Fanshawe 7340 (FHO).

**Euphorbia ampliphylla** Pax Euphorbia obovata folia sensu N.E.Br., non A.Rich.

Tall tree succulent 10–30 m tall, stem unbranched in the lower two-thirds, branches ascending and rebranching to form a spreading crown, branchlets 3-angled, constricted into oblong segments, spines 1–3 mm long; leaves present only on young growth; in Afrotropic montane rainforest; 2,000–2,165 m. N. Malawi to Ethiopia; in the Flora zambesiaca area confined to Nyika and Matipa Forest.


**Malawi.** Nyika plateau, Nkhonjera Hill, 1985, Dowsett-Lemaire 132 (BR).

**Zambia.** Nyika plateau, Chowo forest, 1975, Pawek 10031 (K, MAL, MO, SRGH).
**Plants of the Nyika Plateau**

- *Croton macrostachyus*
  Del. Sandie Burrows

- *Drypetes gerrardii*
  Del. Sandie Burrows

- *Erythrococca menyharthii*
  Del. Christine Grey-Wilson

- *Euphorbia zambesiana var. zambesiana*
  Del. Christine Grey-Wilson
Euphorbiaceae

Euphorbia cyprarissioides Pax

Euphorbia dejeta N.E.Br.

Glabrous perennial herb, with a woody rootstock producing densely-tufted simple or sparsely-branched annual stems; leaves densely crowded towards ends of stems, linear-lanceolate, to 30 x 5 mm, apex rounded then apiculate; in grassland and open woodland on well-drained soils, evident after fires; 1,000–2,280 m. Widespread in tropical Africa.

Malawi. Nyika National Park, 13 km from Chelinda Camp on road to main gate, 1970, Brummitt 11870 (K, SRGH).

No country given. Nyika Plateau, 1958, Robson 205 (UZL).

Euphorbia daviesii E.A.Bruce

Glabrous perennial herb, rootstock herb with numerous annual unbranched erect stems; leaves obovate to broadly obovate, 50–80 x 10–30 mm, hairless, margin more or less revolute; in montane grassland on rocky soil or forest clearings; 600–2,200 m. Widespread in tropical Africa.


Malawi. Nyika Plateau, 4 km W.N.W. of Muzengapakweru, 1972, Synge 321 (K, MAL, SRGH); track to Kasenga Chipopoma Waterfall, 1967, Richards 22548 (K, SRGH).

Euphorbia depauperata Hochst. ex A.Rich. var. depauperata

Euphorbia depauperata var. pubiflora N.E.Br. [Syntypes: Nyika Plateau, 6.1896, Whyte s.n. (K); 7.1896, Whyte s.n. (K)].

Perennial pyrohytic herb from a woody rootstock, producing numerous annual erect or decumbent stems to 0.6 m long, apices of the sterile shoots hairless; leaves linear-lanceolate to broadly obovate, 50–80 x 10–30 mm, hairless, margin more or less revolute; in montane grassland on rocky soil or forest clearings; 600–2,200 m. Widespread in tropical Africa.


Malawi. Nyika Plateau, 4 km W.N.W. of Muzengapakweru, 1972, Synge 321 (K, MAL, SRGH); track to Kasenga Chipopoma Waterfall, 1967, Richards 22521 (K).

Euphorbia depauperata Hochst. ex A.Rich. var. trachycarpa (Pax) S.Carter

As for var. depauperata, but with the apices of the sterile shoots hairy; in montane grassland. Also in S. Tanzania, but most common in northern Malawi.


Malawi. Livingstonia, Nyamkhowa, 1978, Pawek 13854 (K, MAL, MO), PRE, SRGH.


Euphorbia matabelensis Pax

Woody shrub or small tree to 3 m, bark smoothish, peeling, branches more or less trichotomous, branchlets often spine-tipped; leaves alternate or in clusters, oblong-lanceolate to obovate, to 55 x 23 mm, apex rounded; in deciduous woodland, on sandy or rocky soils, on rocky hillsides; 450–1,525 m. Zimbabwe to Angola and Kenya.


Euphorbia schimperiana Scheele var. schimperiana

Erect, much-branched annual or short-lived perennial herb to 2 m, completely glabrous; leaves ovate-lanceolate to lanceolate, to 150 x 20 mm, sessile, glabrous or sparsely hairy on lower surface; in upland grassland, forest margins and clearings; 760–2,180 m. A common weed throughout tropical Africa.


Euphorbia schimperiana Scheele var. pubescens (N.E.Br.) S.Carter

As for var. schimperiana, but stems usually hairy, at least below the point of insertion of the leaves. Zimbabwe to Nigeria and Sudan.


Euphorbia zambesiana Benth. var. zambesiana

Perennial herb with a woody rootstock, producing numerous rebranching prostrate stems after fires; leaves hairless, to 35 x 9 mm, lanceolate to ovate, base subcordate, apex finely apiculate, lower surface often tinged red; a pyrophyte in open miombo woodland and montane grassland; 400–2,130 m. Mozambique to Malawi, Zambia, Angola, D.R.C., and Tanzania.

Malawi. Nyika National Park, without locality or collecting details (Patel 310, holo. [of E. muondo]).

Macaranga capensis (Baill.) Benth.

wild poplar; Chichewa: bwa bwabwa; Yao: msumira, nkwnkwa

Evergreen tree to 25 m with a spreading crown, trunk and branches with short spines; petioles to 300 mm long, leaves broadly ovate, to 250 x 200 mm, tip shortly acuminate, base shortly to deeply cordate; common in medium altitude submontane mixed evergreen forests, forest patches in grassland, and in regenerating forests, in the subcanopy woodland on mountain slopes and on swamp forest (mushitu) margins; 305–2,133 m. South Africa through eastern Africa to Ethiopia.


Macaranga kilimandscharica Pax

Macaranga capensis var. kilimandscharica (Pax) Friis & Gilbert Sukuwa: muondo

Similar to M. capensis (above), but the leaf tips more gradually tapering, the bases tapering to rounded, up to 150 x 100 mm, the lower surface often glaucous; in various evergreen forest types; 2,000–2,100 m. Eastern Africa from Sudan and Ethiopia to Malawi. Regarded as a subspecies of M. capensis by some authors (for example, Friis 1992).


Monadenium orobanchoides P.R.O.Bally

Monadenium chevalieri var. spathulatum P.R.O.Bally

Geophyte with 1–4 annual aerial stems, all parts with milky latex; leaves in rosettes, obovate, often reddish below; flowers in cymes borne on peduncles 3–30 mm long; fruit a 3-lobed capsule ca 4 mm diameter; in montane grassland and in wooded grassland, often among rocks; 1,500–2,300 m. Malawi and S. Tanzania.


Neoboutonia macrocalyx Pax

Open-crowned tree to 30 m tall, with a straight, clear bole, bark smooth, pale; petioles hairy, 50–150 mm, leaves 100–300 x 100–250 mm, roundish to broadly ovate, base cordate, tip blunt to shortly acuminate; fruit to 13 mm diameter, 3-lobular, hairy-scaly; a locally common subcanopy tree in evergreen forest; 600–2,150 m. Eastern Africa, from Zimbabwe to Kenya and Uganda. A fast-growing pioneer species of forests.


Zambia. Nyika Plateau, without precise locality, 1958, Robson & Angus 224 (K, holo. [of M. chevalieri var. spathulatum]).

Phyllanthus arvensis Müll.Arg.

Flat, mat-forming herb or erect shrublet to 2 m, hairless, stems red, fleshy; leaves closely distichous, ovate-suborbicular to elliptic-ovobate; in moist...
Neoboutonia macrocalyx
Del. Sandie Burrows

Macaranga capensis
Del. Sandie Burrows

Monadenium orobanchoides
Del. Sandie Burrows

Phyllanthus beillei
Del. Sandie Burrows
Pseudolachnostylis maprouneifolia
Del. Sandie Burrows

Sapium ellipticum
Del. Sandie Burrows

Ricinus communis var. communis
Del. Sandie Burrows

Suregada procera
Del. Sandie Burrows


Phyllanthus beillei Hutch. ✶
Phyllanthus nyassae Pax & Hoffm.
This collection is intermediate between P. beillei and P. webbischianus in habit and vegetative features (Flora zambesiaca 9(4): 85 (1996)).

Source. Brummitt (1973);

Phyllanthus holostylus Milne-Redh.
Erect tufted hairless perennial herb to 150 mm tall; leaves ovate-lanceolate to lanceolate, 5–15 x 2–7 mm; fruit round, 2.5 x 4.5 mm, smooth, greenish; a pyrophyte in grassland, dambos, and high-rainfall woodland; 1,500–1,960 m. N. Malawi, Zambia, D.R.C., and Angola.


Phyllanthus nyikae Radcl.-Sm.
Phyllanthus sp. 2 sensu Brenan (1954: 69)
Erect branched shrub to 2.5 m tall, shoots with minute hairs; leaves closely distichous, elliptic-oblanceolate to oblong-scale, leaves strongly reflexed; in montane grassland and forest edges; 200–2,350 m. Endemic to Nyika Plateau.


Phyllanthus parvus Hutch.
Glabrous erect annual herb to 200 mm tall, often reddish or purple tinged; leaves distichous, linear-lanceolate to narrowly elliptic, green above, glaucous, pinkish below; fruit smooth greenish brown, 1.2 x 2 mm; in upland woodland, woodland and woodland savanna; 1,370–2,340 m. Malawi, Zambia, Angola, D.R.C., and Tanzania.

Malawi. Nyika National Park, without locality or collecting details (Patel 1979).

Phyllanthus paxii Hutch.
Stiffly erect shrublet to 1.2 m, unbranched at base; leaves distichous, elliptic to elliptic-lanceolate, 5–18 x 1–7 mm, tip tapering, mucronate, hairy; stock, with stinging hairs; leaves triangular-lanceolate, 5- to 7-nerved from the base, hairy or not; fruit with 3 keeled lobes; in riverine forest and thicket, and high-rainfall woodland; 180–1,280 m. South Africa to Tanzania and Kenya.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Pseudolachnostylos maprouneifolia Pax ✶
duiker-berry; Chichewa: msolo; Tumbuka: msono
Deciduous tree to 18 m tall, crown rounded, bark grey, flaking; leaves broadly ovate to elliptic-ovate, base rounded, apex blunt, hairless; flowers small, in leaf axils, fruit a roundish green berry 13–20 mm diameter; in various types of woodland and wooded grassland. Widespread in tropical Africa S. of the equator. Four varieties are recognized; it is not known to which this collection belongs. The fruit is edible and provides a dye; various parts of the tree have several medicinal properties.


*Ricinus communis L. var. communis ✶
caster oil plant; Chichewa: msadzi; Yao: mibalika
Erect tree-like herb with hollow stems when young, all parts grey, greyish or with a reddish tinge; leaves simple, 5– to 11-lobed, 100–500 mm wide, margins coarsely toothed; fruit a 3-lobed capsule 10–23 mm long, set with spines; cosmopolitan weed of disturbed areas, often on river-banks. Yields castor oil of commerce, but the seeds are poisonous. In Malawi this plant has many traditional and medicinal uses.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Sapium ellipticum (Hochst. ex C.Krauss) Pax ✶
jumping-seed tree; Chichewa: mchenji; Yao: mchenjeli, mlanyadi, mtamamjwa
Evergreen tree to 30 m tall with a clear bole and rather drooping branches; bark smooth grey, aging to dark brown, rough; leaves alternate, elliptic-oblong to elliptic-lanceolate, 50–140 x 20–70 mm, base rounded, tip narrowly tapering, margins finely serrate, hairless; fruit 2- (or 3-) lobed, to 9 x 12 mm, smooth, shiny; in evergreen forest, riverine and gully forest, swamp forest; 500–1,800 m. Widespread in Africa from South Africa to Guinea and Ethiopia.


Suregada procera (Prain) Croizat ✶
forest canary-berry
Evergreen tree to 20 m tall, branches more or less horizontal; leaves alternate, 30–140 x 10–70 mm, elliptic to elliptic-ovate, leathery glossy dark green, margin finely toothed, tip blunt, base tapering; fruit a 3-lobed dehiscent capsule, smooth; subcanopy or understory tree of low to medium-altitude evergreen forest and riverine forest; 300–2,133 m. South Africa to D.R.C., Sudan, and Ethiopia.


Tragia kirikiana Müll.Arg. ✶
Climbing or trailing perennial herb with stems to 3 m from a woody rootstock, with stinging hairs; leaves triangular-lanceolate to linear-lanceolate, often hastate, margins sharply serrate, 5- to 7-nerved from the base, hairy or not; fruit with 3 keeled lobes; in riverine forest and thicket, and high-rainfall woodland; 180–1,280 m. South Africa to Tanzania and Kenya. Yields T. brestipes Pax which occurs at higher altitudes.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Tragia okanyua Pax
Climbing nettle-like perennial herb, stems to 3 m tall, twining, all parts hairy with stinging bristles; petioles 3–80 mm long, leaves ovate-lanceolate, 3-lobed, base cordate, 5- to 7-nerved from the base; fruit a 3-lobed capsule, 8–9 mm long, smooth; in various types of woodland and thicket at medium to low altitudes; 0–1,350 m. South Africa to Angola and Tanzania. Very similar to, and perhaps here confused with, T. brestipes Pax which occurs at higher altitudes.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Tragiella anomala (Prain) Pax & K.Hoffm. ✶
Sphaerostylis anomal (Prain) Croizat
Monocoeous vine up to 8 m, young stems hairy, mixed with stinging hairs; petioles 5–70 mm long, leaves ovate-oblong, 30–110 mm long, base cordate, 3- to 5-nerved from the base, sparsely hairy; fruit a 3-lobed capsule, to 9 mm long; in montane evergreen forest underestimate; 1,580–2,150 m. Confined to N. Malawi, N.E. Zambia, and Tanzania.


Uapaca kirriana Müll.Arg.
wild locust; Chichewa: msuku, mtoto
A much-branched evergreen tree with spreading crown, rough grey bark;
Tragia kirkiana
Del. Sandie Burrows

Tragiella anomala
Del. Sandie Burrows

Uapaca robynsii
Del. Sandie Burrows

Adenocarpus mannii
Del. Sandie Burrows
leaves large, stiff, roundish or broadly obovate, 100–270 x 70–170 mm, hairless above, finely hairy below; fruit borne on bare branches below leaves, 40 mm diameter, roundish to faintly 4-lobed, hairless, orange-yellow when ripe; edible; *msuka* woodland is a common component of the open canopy *Brachystegia* woodland which covers the thin stony soils and rift valley escarpments; 30–1,830 m. Widespread in south-central Africa. The fruit is edible and relished by humans and animals; the timber is useful for building purposes. Sixteen species of edible fungi are associated with this tree.

**Malawi.** Nyika National Park, without locality or collecting details (Mill 1979).

**Uapaca nitida** Müller Arg.

*Chicheva*: kasokolowe, mosokolowe; *Tambuka*: msalinija; *Yaa*: mscemera, mtoto, mtesheleka

Small evergreen tree to 12 m, bark smooth at first, grey, rough later, twigs hairless; leaves with long petioles 15–60 mm long, leaves elliptic-oblongate, 40–160 x 15–80 mm, base tapering, tip blunt, shiny dark green above, hairless throughout; fruit ovoid-ellipsoid, 14–20 mm, faintly 3-ribbed, reddish when ripe, edible; in miombo and other types of deciduous woodland, often on rocky hillsides; 40–1,830 m. Mozambique to Angola, D.R.C., and Kenya.

**Source.** Brummitt (1973).

**Malawi.** Nyika National Park, Sawi Valley, 1972, Synge 410 (K, MAL, SRGH).

**Uapaca robynsei** De Wild.  

Spreading, often stunted and gnarled small tree to 7 m tall, bark grey to blackish, very rough, twigs densely hairy; leaves large, stiff, roundish to broadly ovate, 60–300 x 50–170 mm, more or less less hairy above, densely hairy below; fruit ellipsoid, 30–25 mm, densely hairy at first, turning yellowish and hairless with age, edible; in miombo woodland, wooded grassland, sometimes locally dominant, usually in rocky or sandy soils or hillsides or escarpment edges; 1,300–2,000 m. N. Malawi, Zambia, and D.R.C.


**Malawi.** Nyika Plateau, 1975, Pawik 10061 (K, MAL, MO, SRGH, UC); Chisanga Falls, 2000, Saluben & Mwanyambo 6756 (MAL); Burrows & Burrows 6762 (PRE).

**Zambia.** Nyika National Park, Kaperekezi Road, 2000, Phiri 3836 (UZL).

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**Excluded species**

**Clutia robusta** Pax

Similar to *C. paxii* Pax, but the plants are somewhat taller (to 5 m tall) and more or less glabrous; petioles longer, to 15 mm long, and the leaves larger (to 110 x 35 mm). *C. robusta* is not recorded from Malawi in *Flora zambesiaca* (1996) and material of *C. robusta* from Zimbabwe may represent a distinct subspecies; the taxonomy of this complex is perhaps yet to be resolved and, in light of the comments in *Flora zambesiaca* 9(4):130 (1996) under *C. paxii* (above), it seems likely that this collection is the same as that described under *C. paxii*.

**Malawi.** Nyika National Park (Mill 1979).

**Erythrococca polyantra** (Pax & Hoffm.) Prain

*E. polyantra* does not occur in Malawi (*Flora zambesiaca* 9:173, 1996); this name has previously been applied to *E. trichogyne* (White et al. 2001:252).

**Malawi.** Nyika National Park (Mill 1979).

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**FABACEAE**

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**Adenocarpus manni** (Hook.f.) Hook.f. ¤.var.  

Upright shrub to 4.5 m tall, stems leafy, densely hairy; leaves densely clustered on short shoots, 3-foliolate, hairy; yellow flowers, in dense terminal clusters; pods flat, with 6 seeds, hairy; forest margins, montane grassland, and rocky outcrops; 1,500–4,000 m. Malawi to Angola, Nigeria, and Ethiopia. Variety unknown.

**Malawi.** Nyika Plateau, without locality, collector unknown (Mill 1979).

**Aeschnomene abyssinica** (A.Rich.) Vatke

Erect branched shrub 0.8–4.5 m tall, sub-viscid, glabrescent; leaves 10–30(48)-foliolate; flowers yellow with purplish veins; pods of 1–2 segments, glabrous; grassland, miombo woodland, scrub on rocky areas; 1,000–2,530 m. Zimbabwe to Nigeria and Ethiopia. Variety unknown.

**Malawi.** Nyika Plateau, without locality, collector unknown (Mill 1979); Mpupoti, 2000, Mwanyambo 556 (MAL); Thazima Road, 2000, Phiri 3598 (UZL).

**Aeschnomene bracteosa** Baker var. *bracteosa*

Erect or spreading subshrub 0.4–1.3 m tall, most parts sticky; leaves 12–to 56-foliolate; pods with 1–2 rounded segments; in miombo or *Pterocarpus* woodland, seasonally burnt, sometimes in wet sites; 900–1,800 m. Malawi and Zimbabwe northwards to Angola, D.R.C., and Tanzania.

**Malawi.** Nyika Plateau, without locality, collector unknown (Mill 1979).

**Aeschnomene heurkeana** Baker  

Erect to trailing subshrub 0.6–4.5 m tall, hairy or almost so; leaves 12–to 32-foliolate; pods of 2 rounded segments, glabrous; in grassland, marshes, and bush; 1,200–2,100 m. Mozambique, Malawi, Zamba, D.R.C., and Tanzania.

**Source.** Flora zambesiaca 3(6):97 (2000)

**Malawi.** Nyika Plateau, without locality or collector (Mill 1979).

**Zambia.** Nyika Plateau, without locality, 1962, Verboom 632 (K, LISC, SRGH).

**Aeschnomene indica** L.

Erect shrubby annual or perennial 0.3–2.5 m; leaves sometimes sensitive, 16–50(70) foliolate; flowers yellow/white, lined with red; pods 30–45 mm long, of 6–9 segments, sparsely hairy; in a wide variety of habitats, mostly moist; 0–1,530 m. Widespread in Africa; also in Madagascar, S.E. Asia, Australia, and N. America.

**Source.** Pax & Hoffm. (1913) where two localities are given from Angola. However, the species is not listed from *Flora zambesiaca* or from *Flora of Tropical East Africa* and is therefore excluded here.

**Erythrococca usambarica** Prain

This name does not appear in either *Flora zambesiaca* (1996) or in White et al. (2001) and appears to be a misidentification of *E. trichogyne* var. paligyne.


**Phyllanthus microphyllinus** Müller Arg.

This taxon, listed in Mill (1979), originates from *Flora of Tropical Africa* 6:1, 714 (1913) where two localities are given from Angola. However, the species is not listed from *Flora zambesiaca* or from *Flora of Tropical East Africa* and is therefore excluded here.

Aeschynomene oligophylla Harms

Erect shrub 60–450 mm tall, numerous stems from a woody rootstock, pyrophyte, stems hairy or not; leaves 2–to-4-foliolate, pressed to the stem, glabrous; pods of 1–2 segments, glabrous; in miombo woodland, grassland, especially rocky places; 1,500–2,100 m. Zambia, Malawi, S. D.R.C. and S. Tanzania.


Aeschynomene tenuirama Baker var. tenuirama

Subshrub from woody rootstock, several erect stems to 2 m tall, glabrous when old; leaves 10–100-foliolate; pods of 1–2 roundish segments, more or less hairless; 118–1,740 m. Angola, Malawi, Mozambique, D.R.C., and Zambia.


Malawi. Nyika Plateau, ca. 1.6 km in entrance road, 1976, Pawek 11767 (K).

Aeschynomene tenuirama Baker var. hebecarpa Verdc.

Diffrers from var. tenuirama in having hairy pods. Submontane grassland, 2,000–2,300 m. Near endemic; only found on the Nyika Plateau and Mafinga Hills.


Malawi. Nyika Plateau, Mt. Mwenemwe, 1903, McClounie 134 (K, holo.).

Aeschynomene sp. E


Erect herb or small shrub 0.2–0.9 m tall; leaves 10–44-foliolate; flowers yellow; pods of 102 segments, joined by a very narrow neck, hairless; in montane grassland. Malawi, Mozambique, and Tanzania. This is very similar to A. trigonocarpa, but also sometimes misidentified as A. goetzei.


Zambia. Nyika Plateau, upper slopes of Kangampande Mt. (Chowo Forest), White 2779 (FHO, K).

Amphicarpaea africana (Hook.f.) Harms

Perennial climbing herb to 3.6 m long, stems slender with reddish hairs; leaves 3-foliolate, leaflets elliptic to obovate, 18–70 mm long, hairy beneath; flowers mauve to violet, in many-flowered racemes; pods flat, margins ciliate, ca 4 seeds; in and on edges of montane forest and scrub; 1,680–2,700 m. Malawi and Zambia to Cameroon and Ethiopia.


Antopetitia abyssinica A.Rich.

Spreading or erect hairy annual; leaflets 5–11, linear-lanceolate, glabrous above; flowers yellow or orange, brown-veined; pods beaded, Zornia-like, hairless; in montane grassland, cultivated areas; 1,000–3,200 m. Zimbabwe to Cameroon and Ethiopia.

Malawi. Nyika Plateau, without locality or collector (Mill 1979).

Argyrolobium rupestre (E.Mey.) Walp. subsp. aberdarcicum (Harms) Polhill

Low perennial with numerous prostrate or more or less ascending hairy branches; leaflets 3, lanceolate to elliptic or obovate, 10–34 mm long, hairy; flowers in racemes, bright yellow, thinly hairy outside, pod hairy, 8–14 mm long; montane grassland and moorland; 1,900–3,900 m. Malawi, Zambia (Nyika), E. D.R.C., to Ethiopia.

Malawi. Nyika Plateau, without locality or collector (Mill 1979); without locality or collector (Patel 1999).

Argyrolobium tomentosum (Andrews) Druce

Argyrolobium sibirense Taub.

Bushy woody subshrub 0.7–1.5 m tall; leaflets 3, elliptic, 24–68 mm long, thinly hairy; flowers yellow, flushed orange, aging to red or purple; pod 34–60 mm long, 12–18-seeded, hairy; forest margins, riverine forest, montane grassland, and scrub; 900–2,400 m. South Africa to Uganda and E. D.R.C.

Colutea abyssinica
Del. Sandie Burrows

Craibia brevicaudata subsp. baptistarum
Del. Sandie Burrows

Crotalaria dedzana
Del. Sandie Burrows

Dalbergia lactea
Del. Sandie Burrows
**Astralagus atropilosulus** (Hochst.) Burge subsp. *atropilosulus* \*var. no var.\* Perennial or biennial herb to ca 1 m, stems cylindrical, ribbed, hairless; stipules large, leaf-like, ovate; leaves 11–51, elliptic, to 30 mm long, hairless, or with some hairs below; flowers purplish, white or yellow; in grassland and forest margins. Varietal status yet to be confirmed. **Malawi.** Nyika Plateau, without locality, collector unknown (Mill 1979).

**Colutea abyssinica** Kunth & Bouche \*Colutea israena* Cronquist, Fl. Congo Belge 5: 74 (1954) Shrub 1–4 m tall; leaves 9–15, obovate, mucronulate, hairless above, hairy below; flowers dark reddish brown; pod purplish or brownish, papery, inflated, hairless; in montane grassland, scrub or forest margins; 1,800–3,000 m. Tanzania to Ethiopia (not listed for Malawi in F.T.E.A.). **Malawi.** Nyika Plateau, without locality (!northern end) or collector (Patel 1999).

**Craibia brevicaudata** (Vatke) Dunn subsp. *bistapurian* (Buttn.) Gillett \*Craibia isriaena* Cronquist, Fl. Congo Belge 5: 74 (1954) Evergreen tree to 20 m; leaves with 3–7 glossy dark green leaflets; flowers white, showy; pods woody, to 90 mm long; in evergreen forest. Zimbabwe (not listed for Malawi in F.T.E.A.).

**Crotalaria abbreviata** Baker f. *Crotalaria fulvia* Mexx. Annual, ascending, to 0.3 m tall, stems tawny-haired; leaves 3, oblong-elliptic, 12–40 mm long, hairy, stipules filiform, 2–4.5 mm long; flowers pale yellow veined purplish; pods almost spherical, 6–8 mm long, 1–2-seeded, densely hairy; in woodland, grassland, scrub, disturbed areas; 750–1,650 m. Tanzania, D.R.C., Zambia, and a single locality in Malawi. **Malawi.** Nyika Plateau, without locality (!northern end) or collector (Patel 1999).

**Crotalaria argyrolobioides** Baker *Crotalaria kaskiensis* Baker f. ; *Crotalaria singuliflora* Baker f. Erect shrubby annual or perennial to 1.6 m; leaves 3, oblong-elliptic, apex rounded, stipules absent; flowers yellow, reddish and more or less hairy outside; pod short, 7–9 mm long, 5–8-seeded, hairy; in montane grassland and scrub; 1,570–2,100 m. Mozambique, Malawi, Zambia, and Tanzania. Source. Brummit (1973: 64).

**Crotalaria becquetii** R.Wilczek subsp. *turgida* Polhill *Crotalaria laburnioides* sensu Brench (1953), non L. Much-branched shrub 1.3–3 m tall; leaves 3-foliolate, leaves elliptic, to 9 x 4 mm, subglabrous, stipules absent; pods 5–9 mm long, glabrous; on forest margins, 1,800–2,100 m. Malawi, Zambia (Nyika only) and possibly S. Tanzania. Almost a Malawian endemic. **Malawi.** Dowsett-Lemaire (1985: 323).

**Crotalaria longibracteata** De Wild. Much-branched shrub 1–4 m tall; leaves 3–5, elliptic, 50–110 mm long, pointed; stipules slender, 1–5 mm long; flowers yellow, red-veined; pods 38–50 mm long, 30–40-seeded, hairy; on forest margins, in montane grassland, and scrub, disturbed areas; 1,150–2,550 m. Widespread in tropical Africa. Source. Brummit (1997: 64).

**Crotalaria lachnophora** A.Rich. Woody herb or shrub 0.5–2.5 m tall; leaves 3, oblong-elliptic or elliptic-oblong, 35–70 mm long, silky grey on both surfaces, stipules filiform, 5–8 mm; flowers yellow, reddish brown outside; pods 25–30 mm long, with 20–26 seeds, hairy; in grassland, forest margins, and scrub; 1,200–2,650 m. Zimbabwe to Ethiopia. **Malawi.** Nyika National Park, without locality or collector (Patel 1999).

**Crotalaria lachnocarpoidea** Engl. Woody herb or shrub 0.5–2.5 m tall; leaves 3, oblong-elliptic or elliptic-oblong, 35–70 mm long, silky grey on both surfaces, stipules filiform, 5–8 mm; flowers yellow, reddish brown outside; pods 25–30 mm long, with 20–26 seeds, hairy; in grassland, forest margins, and scrub; 1,200–2,650 m. Zimbabwe to Ethiopia. **Malawi.** Nyika National Park, without locality or collector (Patel 1999).

**Crotalaria longibracteata** De Wild. Much-branched shrub 1–4 m tall; leaves 3–5, elliptic, 50–110 mm long, pointed; stipules slender, 1–5 mm long; flowers yellow, red-veined; pods 38–50 mm long, 30–40-seeded, hairy; on forest margins, in montane grassland, and scrub, disturbed areas; 1,150–2,550 m. Widespread in tropical Africa. Source. Brummit (1997: 64).

**Crotalaria longibracteata** De Wild. Much-branched shrub 1–4 m tall; leaves 3–5, elliptic, 50–110 mm long, pointed; stipules slender, 1–5 mm long; flowers yellow, red-veined; pods 38–50 mm long, 30–40-seeded, hairy; on forest margins, in montane grassland, and scrub, disturbed areas; 1,150–2,550 m. Widespread in tropical Africa. Source. Brummit (1997: 64).

**Crotalaria lachnocarpoidea** Engl. Woody herb or shrub 0.5–2.5 m tall; leaves 3, oblong-elliptic or elliptic-oblong, 35–70 mm long, silky grey on both surfaces, stipules filiform, 5–8 mm; flowers yellow, reddish brown outside; pods 25–30 mm long, with 20–26 seeds, hairy; in grassland, forest margins, and scrub; 1,200–2,650 m. Zimbabwe to Ethiopia. **Malawi.** Nyika National Park, without locality or collector (Patel 1999).

**Crotalaria lachnocarpoidea** Engl. Woody herb or shrub 0.5–2.5 m tall; leaves 3, oblong-elliptic or elliptic-oblong, 35–70 mm long, silky grey on both surfaces, stipules filiform, 5–8 mm; flowers yellow, reddish brown outside; pods 25–30 mm long, with 20–26 seeds, hairy; in grassland, forest margins, and scrub; 1,200–2,650 m. Zimbabwe to Ethiopia. **Malawi.** Nyika National Park, without locality or collector (Patel 1999).

**Crotalaria natalitia** Meisner \*var. Shrub 1–2.6 m tall, 1–several stems and ascending ribbed branches; leaves crowded on short side shoots, leaves 3, linear-oblongellate, 20–42 mm long, stipules unequal, oblong-falcate, 5–15 mm long; flowers yellow, tinged reddish; pods 35–45 mm long, with 25–40 seeds, glabrous, dark-mottled; in woodlands, riverine forest, scrub, forest margins. Variety yet to be determined. **Malawi.** Nyika Plateau, without locality or collecting details (Mill 1979).

**Crotalaria natalitia** Meisner \*var. Shrub 1–2.6 m tall, 1–several stems and ascending ribbed branches; leaves crowded on short side shoots, leaves 3, linear-oblongellate, 20–42 mm long, stipules unequal, oblong-falcate, 5–15 mm long; flowers yellow, tinged reddish; pods 35–45 mm long, with 25–40 seeds, glabrous, dark-mottled; in woodlands, riverine forest, scrub, forest margins. Variety yet to be determined. **Malawi.** Nyika Plateau, without locality or collecting details (Mill 1979).

**Crotalaria natalitia** Meisner \*var. Shrub 1–2.6 m tall, 1–several stems and ascending ribbed branches; leaves crowded on short side shoots, leaves 3, linear-oblongellate, 20–42 mm long, stipules unequal, oblong-falcate, 5–15 mm long; flowers yellow, tinged reddish; pods 35–45 mm long, with 25–40 seeds, glabrous, dark-mottled; in woodlands, riverine forest, scrub, forest margins. Variety yet to be determined. **Malawi.** Nyika Plateau, without locality or collecting details (Mill 1979).

**Crotalaria natalitia** Meisner \*var. Shrub 1–2.6 m tall, 1–several stems and ascending ribbed branches; leaves crowded on short side shoots, leaves 3, linear-oblongellate, 20–42 mm long, stipules unequal, oblong-falcate, 5–15 mm long; flowers yellow, tinged reddish; pods 35–45 mm long, with 25–40 seeds, glabrous, dark-mottled; in woodlands, riverine forest, scrub, forest margins. Variety yet to be determined. **Malawi.** Nyika Plateau, without locality or collecting details (Mill 1979).

**Crotalaria natalitia** Meisner \*var. Shrub 1–2.6 m tall, 1–several stems and ascending ribbed branches; leaves crowded on short side shoots, leaves 3, linear-oblongellate, 20–42 mm long, stipules unequal, oblong-falcate, 5–15 mm long; flowers yellow, tinged reddish; pods 35–45 mm long, with 25–40 seeds, glabrous, dark-mottled; in woodlands, riverine forest, scrub, forest margins. Variety yet to be determined. **Malawi.** Nyika Plateau, without locality or collecting details (Mill 1979).

**Crotalaria natalitia** Meisner \*var. Shrub 1–2.6 m tall, 1–several stems and ascending ribbed branches; leaves crowded on short side shoots, leaves 3, linear-oblongellate, 20–42 mm long, stipules unequal, oblong-falcate, 5–15 mm long; flowers yellow, tinged reddish; pods 35–45 mm long, with 25–40 seeds, glabrous, dark-mottled; in woodlands, riverine forest, scrub, forest margins. Variety yet to be determined. **Malawi.** Nyika Plateau, without locality or collecting details (Mill 1979).
Crotalaria nyikense Baker

Erect annual 0.6–1.3 m tall; leaves 3, narrowly oblanceolate, stipules absent; pods 5–6 mm long, with 3–6 seeds, hairy, in montane grassland. Almost a *Flora zambesiaca* endemic, occurring from Lake Tanganyika (Zambia), through most of Malawi, and extreme S. of Tanzania (Rungwe).

**Malawi.** Nyika Plateau, 6,000–7,000 ft., 1896, Whyte s.n. (K, holo.); without locality or collecting details (Mill 1979); Thazima Gate, 2000, Salubeni & Mwanyambo 6758 (MAL).

Crotalaria ochroleuca G.Don

Erect annual or short-lived perennial, 0.5–2.5 m tall, stems lax, ribbed; leaves 3-foliolate, leaflets mostly linear, finely hairy below, stipules absent; flowers cream to pale yellow, red-veined; pods cylindrical, 7–8 mm long, with 12–15 seeds, thinly hairy; sandy places in miombo woodland, along roadsides; 1,180–1,650 m. Malawi and Tanzania.

**Malawi.** Nyika National Park, without locality or collecting details (Patel 1999).

Crotalaria pallida Aiton

Erect well-branched herb 1–2 m tall; leaves 3-foliolate, leaflets elliptic to obovate, finely hairy below, stipules hair-like; flowers yellow, red-veined; pod cylindrical, slightly curved, 38–50 mm long, almost hairless; in grassy, moist areas, sometimes a weed. Widespread in tropical Africa. Grown as a green manure and now widely naturalised as a result.

**Malawi.** Nyika National Park, without locality or collector (Patel 1999).

Crotalaria pilosiflora Baker

Subshrub to 2.5 m high, stems with spreading-pubescent; leaflets 3, elliptic, 15–33 mm long, stipules linear, 2–4 mm long; pods subglobose, 12–15 mm long, with 12–14 seeds, hairy; in miombo woodland. Endemic to Nyika Plateau.

**Source.** Brummitt (1973: 64).

**Malawi.** Nyika Plateau, 6,000–7,000 ft., 1896, Whyte s.n. (K, holo.); E. foot of Ngandu, 1972, Brummitt & Syngne 104 (K, MAL, SRGH!).

Crotalaria recta Steud. ex A.Rich.

Perennial with several erect, more or less unbranched hollow, ribbed stems; leaflets 3, linear-lanceolate to obovate, 18–140 mm long, stipules linear-lanceolate, 6–9 mm long, deflexed; flowers yellow, purple-veined; pods 52–60 mm long, hairless, with 26–34 seeds; in grassland, forest margins, disturbed areas; 850–2,550 m. South Africa to Nigeria and Ethiopia.

**Malawi.** Nyika Plateau, without locality or collector (Mill 1979).

Crotalaria rhodesiae Baker f.

Prostrate perennial, stems hairy; leaflets 3, oblanceolate to obovate, stipules more or less unbranched, linear-lanceolate; flowers yellow, tinged red outside; pods subessile, cylindrical, 20–27 mm long, with 16–22 seeds, sometimes hairy; upland areas in woodland, grassland, often on sand or seepage areas. N. South Africa, Zimbabwe, Zambia, Malawi, and S. Tanzania.

**Malawi.** Nyika National Park, Runyina River, 2000, *Phiri 3802 (UZL).*

Crotalaria ringoetii Baker f.

Erect laxly branched annual to 0.9 m tall; leaflets 1 (simple), narrowly oblanceolate, stipules absent; pods small, 3–4 mm long, 2-seeded, hairy; in miombo woodland, often in moist or disturbed areas. Widespread in tropical Africa; also on Madagascar.

**Crotalaria ringoetii** De Wild. subsp. capitata var. *fwamboensis* (Baker f.) Polhill

*Crotalaria nicholsonii* Baker f.

Straggly or erect annual or perennial to 1 m tall; leaflets 3, variable, linear-lanceolate to elliptic or obovate, 15–80 mm long, stipules subulate, recurved, 1–3 mm long; flowers yellow, reddish-veined; pod 12–24 mm long, with 20–30 seeds, hairy; in grassland along streams, woodland, forest margins. S.E. tropical Africa.

**Malawi.** Nyika Plateau, without locality, collector unknown (Mill 1979).

Crotalaria subcapitata Polhill

*Crotalaria subspicata* Polhill

Erect annual to 300 mm tall, stem usually unbranched; leaves 3-foliolate (upper ones sometimes 1-foliolate), sparsely hairy above, less so below, petiole 2–5 mm long; flowers yellow, standard hairy outside; pods ovoid-globose, 4–5 mm long, hairy, 4- to 6-seeded; in *Brachystegia* woodland.

**Malawi and S. Tanzania.** This is the first record of this species for Malawi (N.).

**Malawi.** Nyika National Park, Juniper Forest Reserve, 2000, *Willis 11 (MAL, PRE, UZL); without locality, collector unknown (Mill 1979).*

Crotalaria subspicata Polhill

Erect annual to 150 mm tall, with numerous ascending branches; leaflets mostly 3 (upper ones 1), narrowly oblanceolate, hairy, stipules absent; pods roundish, 5–6 mm long, with 3–6 seeds, hairy; miombo woodland and scrub, sandy places; 900–1,700 m. Zimbabwe to Tanzania.

**Malawi.** Nyika Plateau, 6,000–7,000 ft., 1896, Whyte s.n. (K, holo.); without locality, collector unknown (Mill 1979).

Crotalaria stolzii (Baker f.) Milne-Redh.

Straggly subwoody perennial 1–3 mm tall; leaflets 3, oblanceolate, 20–29 mm long, hairless above, sparsely hairy below, stipules leafy, ovate-corate 15–22 mm long; flowers bright yellow, pod 16–18 mm long, with 6–8 seeds, glabrous; in montane grassland, forest margins, stream banks; 1,800–3,000 m. Zimbabwe to Kenya.

**Malawi.** Nyika Plateau, without locality, collector unknown (Mill 1979); Chelinda Bridge, 2000, Salubeni & Mwanyambo 6771 (MAL); Juniper Forest Reserve, 2000, *Chikuni 520 (MAL).*

Crotalaria subcaespitosa Polhill

*Crotalaria caespitosa* Baker (1897), non Roxb. (1832)

Woody rootstock with numerous ascending stems 100–250 mm long; leaflets 3, oblanceolate to elliptic, 10–25 mm long, stipules linear, 1–3 mm; pods 9–15 mm long, with 8–16 seeds, hairy; in miombo woodland, burnt upland grassland. Almost a Malawi endemic, also in the Rungwe area of S. Tanzania.

**Malawi.** Nyika Plateau, near Dembo River bridge, 2000, *Willis 11 (MAL, PRE, UZL); without locality, collector unknown (Mill 1979).*

Crotalaria subcapitata De Wild. subsp. capitata var. *fwamboensis* (Baker f.) Polhill

*Crotalaria nicholsonii* Baker f.

Erect annual 0.6–1.3 m tall; leaflets 3, narrowly oblanceolate, hairy, stipules absent; pods 62–85 mm long, stipules filiform, 1–3 mm long; flowers deep yellow, silky outside; pods ovoid-globose, 4–5 mm long, hairy, 4- to 6-seeded; in *Brachystegia* woodland.

**Malawi.** Nyika Plateau, with precise locality (Dowsett-Lemaire 1985: 384): Nyika Plateau, 1896, Whyte s.n. (K, holo.).

Crotalaria valida Baker

Perennial with woody rootstock and several erect unbranched stems, or shrub to 1.3 m; leaflets 3 (1 in upper shoots), oblong-lanceolate to elliptic, 62–85 mm long, stipules filiform, 5 mm long; flowers deep yellow, silky outside; pods to 25 mm long, 10- to 22-seeded, hairy; in miombo woodland, montane grassland; 900–2,400 m. Zimbabwe to D.R.C. (Katanga) and Tanzania.

**Source.** Brummitt (1973: 64).

**Malawi.** Nyika Plateau, 6,000–7,000 ft., 1896, Whyte s.n. (K, syn.); S. slopes of Kwafoya, 1972, *Brummitt & Syngne 177 (K, MAL); southern circular route at Chelinda Bridge, 2000, *Koekemoer 1777 (PRE).*

Dalbergia fischeri Taub.

Large climber with stems to 0.5 m in diameter and armed with large woody spines (Dowsett-Lemaire) or small tree or scandent shrub (*F.T.E.A.*); leaves with 5–8 pairs of leaflets; flowers white to cream, fragrant; pods 70–145 mm
long, with 1–4 seeds, hairless; in riverine forest or miombo, 200–1,800 m. 
Zimbabwe to Tanzania. 

Malawi. Nyika Plateau, N. Rukuru Falls, 1,600–1,800 m, Dowsett-Lemaire 327 (herbaria not stated).

**Dalbergia lactea** Vatke

_Liane (Dowsett-Lemaire) or small tree/scandent shrub (F.T.E.A.), with some coiled branches; leaves with 6–10 pairs of leaflets; flowers white, flushed with purple; pods 1-seeded, flat, hairless; montane forest and scrub; 1,850–2,000 m on Nyika, 540–2,400 m elsewhere. Zimbabwe to Nigeria and Ethiopia.


**Dalbergiella nyasae** Baker f.

_Chicheve: mlembela; Yao: mlundo

Deciduous tree to 9 m tall, in mixed woodland; leaves crowded on short branchlets, pinnate with 6–10 pairs of opposite leaflets; flowers red to yellowish, fragrant; pods flat, 1- to 2-seeded, distinctly fringed with hairs on one side; 350–1,250 m. Zimbabwe to Zambia and Tanzania.


**Desmodium barbatum** (L.) Benth. _var. dimorphum_ (Welw. ex Baker) B.G.Schubert

Variable erect or prostrate herb with hairy stems; leaves 1- to 3-foliolate, leaflets almost round or elliptic, hairy or not; flowers red, purple or blue; pods of 1–6 segments, hairy-sticky; in grassland and deciduous woodland. Variety to be determined, but _var. dimorphum_ is the most widespread and most likely candidate.

_Malawi. Nyika Plateau, without locality (northern end), collector unknown (Patel 1999); between Chisanga Falls and Kapererekezi Gate, 2000, Salubeni & Mwanyambo 683 (MAL); path to Chisanga Falls, 2000, Burrows & Burrows 6779 (PRE).

**Desmodium gangeticum** (L.) DC.

_Herbacceous to woody perennial 0.1–1.5 m, stems prostrate to erect; leaves 1-foliolate, ovate to elliptic-acuminate, hairy; flowers variable, white to red or mauve; pods of up to 7–8 segments, hairy-sticky; in deciduous woodland, wooded grassland, riverine forest; sea-level to 2,000 m. Throughout the Old World tropics.


_Malawi. Nyika Plateau, without locality (northern end), collector unknown (Patel 1999); Nyika Plateau, without locality, 1896, Whyte s.n. (K).

**Desmodium repandum** (Vahl) DC.

_Podocarpium repandum_ (Vahl) Yang & Huang

_Perennial herb, scrambling or forming dense undergrowth, 0.5–1 m tall; leaves 3-foliolate, leaflets more or less rhombic, thin, finely hairy; flowers pink to red; pods to 5-segmented, hairy-sticky; often common on forest floors; 1,000–3,000 m. Widespread in tropical Africa; also in Madagascar, India, and Malaysia.


**Desmodium salicifolium** (Poir.) DC. _var. salicifolium_

_Erect, more or less woody shrub, 0.9–3.6 m tall; leaves 3-foliolate, leaflets 30–175 x 10–65 mm, ovate lanceolate to oblong-elliptic, hairless above, hairy below; flowers in a long terminal or axillary raceme, pinkish white to white or greenish yellow; pods 30–45 mm long, with 3–7 segments, finely hairy; in miombo woodland, often near rivers or wet areas; 480–1,680 m. Widespread in tropical Africa; also on Madagascar and the Mascarenes.

**Dolichos kilimandscharicus** Taub. _subsp. kilimandscharicus_ var. _kilimandscharicus_

_Erect perennial herb 0.25–1.2 m tall; from a massive woody rootstock, flowering precociously; leaves 3(4)-foliolate, silvery-velvety; flowers purplish or white, large; pods straight, 40–90 mm long, densely hairy; in various types of grassland and woodland; 900–2,700 m. Zimbabwe to Angola and Ethiopia.


**Dolichos sericus** E.Mey. _subsp. sericus_

_Rhynchosia sphaerocephala_ Baker _[Nyika, Whyte 275 (K, holo.)]

_Prostrate or climbing perennial herb to 2 m long, stems hairy; leaves 3-foliolate, hairy; flowers pink, purple or blush; pods flat, more or less curved, hairy or not; in forest and secondary scrub; 1,170–2,550 m. South Africa (KwaZulu-Natal) to Cameroon and Ethiopia.


**Dolichos trinervatus** Baker

_Erect perennial herb to 0.8 m tall, stems arising from a woody rootstock; leaflets 3, paler below, subglabrous to silvery pubescent; flowers mauve-purple; pods to 40 mm long, hairy; miombo woodland; 450–2,100 m. Zimbabwe to Angola and S. Tanzania.


**Droogmansia pteropus** (Baker) De Wild. _var. pteropus_ (Schindl.) Verdc.

_Droogmansia wytei_ Schindl.

_Perennial herb or shrub 0.6–2.5 m tall, several shoots from a woody rootstock; leaves unmistakable, 1-foliolate, but the petiole winged so much as to appear as a double leaf; flowers on more or less unbranched inflorescences, white or yellow, veins red or purple; pods of 1–5 segments, yellowish hairy; in dry grassland and various woodland types; 880–2,250 m. Mozambique, Malawi, Zambia, D.R.C., Zimbabwe, and Tanzania. Merges with var. _wytei_ on the Nyika.


**Droogmansia pteropus** (Baker) De Wild. _var. whytei_ (Schindl.) Verdc.

_Droogmansia wytei_ Schindl.

_Differs from _D. pteropus_ var. _pteropus_ in having branched inflorescences._


**Dumasia villosa** DC. _var. villosa_ 

_Climbing perennial herb with slender stems covered with reddish hairs; leaves 3-foliolate, leaflets ovate-oblong, apex rounded; flowers yellow, in racemes; pods linear, velvety, seeds black; in forest and scrub; 1,350–2,550 m. South Africa to Ethiopia, but rare in Malawi. Also in Asia and Madagascar._


_Malawi. Nyika Plateau, 8 km E. of Nganda, 1972, Brummitt, Munthali & Synge 131 (K, SRGH); Juniper Forest Reserve, 2000, Chikuni 514 (MAL).

**Eriosema affine** De Wild.

_Tumbuka: mabutizi

_Erect shrub 0.8–1.8 m tall, branches blackish, ridged; leaflets 3, elliptic-oblong to obovate-oblong, silvery-hairy beneath; inflorescence axillary, paniculate, flowers reddish brown outside; pods 18–30 mm long, densely silvery-hairy; in miombo woodland or grassland; 710–2,620 m. Zimbabwe to Angola and Tanzania.

Dalbergiella nyasae
Del. Sandie Burrows

Desmodium barbatum
var. dimorphum
Del. Sandie Burrows

Desmodium repandum
Del. Sandie Burrows

Dolichos sericeus subsp. sericeus
Del. Sandie Burrows
**Eriosema bauchiense** Hutch. & Dalz.

Erect pyrophyte with more or less unbranched dark more or less hairless stems; leaflets 1–3, elliptic, 18–60 mm, glandular, hairless; flowers in axillary racemes, yellow, ± scented; pods 11–16 mm, sparsely hairy and glandular, seeds purple; in montane grassland; 1,350–2,100 m. Malawi, Zambia, Tanzania, D.R.C., and Nigeria.

**Source.** Flora zambesiaca 3(5): 229 (2000).

**Malawi.** Nyika Plateau, Fingira Rock Road, 1977, Pawek 12951 (K, MO).

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**Eriosema buchananii** Baker f. var. buchananii

Perennial shrubby herb 0.1–1.5 m tall, rootstock woody, stems hairy; leaflets 3, rarely 1, round or ovate, more or less hairy; flowers in racemes, cream, white or purple and white; pods 12–14 mm long, covered with long hairs and glands; montane grassland, wooded or bracken grassland; 1,500–2,280 m. S. Africa, Zimbabwe, Malawi, and Zambia.


**Malawi.** Nyika Plateau, Nihakati Peak, 2000, Willis, Patel & Luhango 140 (MAL, PRE, UZL); southern circular route to Chelinda Bridge, 2000, Koekemoer 1808 (PRE).

**Zambia.** Nyika Plateau, in thick machito, 2,100 m, 1959, Richards 10436 (K); W. of Chowo Forest, 2000, Phiri 3923 (UZL).

**No country given.** Nyika Plateau, 1958, Robson 237 (UZL).

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**Eriosema burkei** Harv.

Pyrophytic herb with several erect more or less branched hairy stems from a woody rootstock; leaflets 1–3, elliptic, hairy; flowers in axillary racemes, yellow/orange tinged pink or brown; pods 11–15 mm long, oblong-oblong, apiculate, set with long reddish hairs and glands; seasonally burnt grassland; 1,500–1,815 m. South Africa to Angola; D.R.C., and Tanzania.

**Malawi.** Nyika Plateau, without locality, collector unknown (Mill 1979).

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**Eriosema chrysadenium** Taub. var. chrysadenium

Erect perennial herb from a tuberous rootstock, stems to 300 mm tall, with yellowish hairs; leaves simple, ovate-oblong, cordate, hairy throughout; inflorescence terminal or axillary, flowers with standard purple or deep purple, petals yellow, flushed brown; pods 6–7 mm long, with reddish hairs, scales and glands, seeds pink-brown with black spots; in wooded grassland, dry woodland; 1,650–2,400 m. Zimbabwe, Malawi, D.R.C., Nigeria, Cameroon, and S. Tanzania.

**Source.** Flora zambesiaca 3(5): 239 (2000).

**Malawi.** Nyika Plateau, Kasaramba–Vitumbi Road junction, 1977, Pawek 12447 (K, MAL, MO, SRGH, UC); between Nganda and Jalawe Viewpoint, 2000, Koekemoer 1835 (PRE).

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**Eriosema montanum** Baker f.

Branched subshrub 0.2–1.5 m tall, stems hairy; leaflets 3, ovate to obovate to lanceolate, hairy; flowers in racemes, yellow, veined reddish or brown-purple; pods 10–17 mm long, elliptic to oblong, with reddish hairs and glands, seeds olive to livery-coloured with dark spots; grassland, scrub, forest margins; 900–2,520 m. Zimbabwe to Nigeria and Ethiopia.

**Source.** Brunmitt (1973: 64); Flora zambesiaca 3(5): 225 (2000).

**Malawi.** Nyika Plateau, 8 km E. of Nganda, 1972, Brunmitt, Munthali & Synge 1167 (K, MAL); Luselo River, 2000, Salubeni & Mvuyambo 6802 (MAL).

**Zambia.** Nyika Plateau, upper slopes of Kangampande Mt. (Chowo Forest), White 2792 (FHO, K).

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**Eriosema nutans** Schinz

Perennial herb 0.2–1.5 m tall, thick rootstock, stems densely hairy; leaflets 3, ovate, elliptic or lanceolate, 12–90 mm long, more or less hairy; flowers in racemes, white or yellow with reddish veining; pods 8–10 mm long, hairy; in grassland, forest margins, wooded grassland; 1,200–2,400 m. South Africa to Ethiopia.


**Malawi.** Nyika Plateau, without locality, Phillips 1428 (K, MO).

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**Eriosema rhodesicum** R.E.Fr. var. rhodesicum

Herb with erect unbranched stems to 300 mm tall; leaflets 1, elliptic, more or less hairless; flowers in axillary racemes, white or yellow, flushed red or brown; pods 10–13 x 9–10 mm, hairy, seeds brown, spotted; in seasonally burnt grassland, rocky hillsides; 1,620–2,400 m. Zimbabwe to Angola, Egypt, and Ethiopia.

**Malawi.** Nyika Plateau, without locality, collector unknown (Mill 1979).

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**Eriosema shireense** Baker f. var. shireense

Herb with 1 or few unbranched erect stems 80–400 mm tall; leaflets 1–3 (4), elliptic to lanceolate, thinly hairy; flowers in axillary racemes, cream or yellowish, flushed reddish; pods 10–13 x 6.5–11 mm, with reddish hairs, seeds reddish brown; in grassland, miombo woodland on poor soils; 460–2,240 m. Zimbabwe to Angola, Cameroon, and Ethiopia.

**Source.** Mill (1979); Flora zambesiaca 3(5): 233 (2000).

**Malawi.** Nyika Plateau, Chelinda Bridge, 1977, Pawek 12250 (K).

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**Eriosema ukingense** Harms

Erect pyrophytic herb, stems more or less unbranched, hairy, 150–350 mm tall, leaflets 3, narrowly elliptic to linear-lanceolate, silvery beneath; flowers in racemes, yellow or cream inside, pink or brown outside; pods 11 x 6–8 mm, hairy and glandular; in seasonally burnt montane grassland; 2,100–2,600 m. Nyika Plateau (Malawi and Zambia) and S. Tanzania.


**Malawi.** Nyika Plateau, Lake Kafuline, 1958, Robson & Angus 294 (BM, K, LISC); Kasaramba Road, 8,000’, 1974, Pawek 7860 (K, MAL, MO, SRGH, UC).

**Zambia.** Nyika Plateau, without locality, 1962, Fmisshe 7277 (K, NDO).

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**Eriosema youngii** Baker f. var. youngii

Erect or decumbent herb with 1 stems, sparsely branched, trailing, slender,
leaflets 1, linear to narrowly elliptic, sparsely hairy; flowers axillary, yellow inside, reddish brown outside; pods 9–10 x 3 mm, with reddish hairs, seeds brown, dark-spotted; in marshy grassland, wooded grassland; 1,200–1,650 m. Mali, Nigeria, Angola, to Tanzania, Zambia, and Malawi.


Erythrina abyssinica Lam. ex DC.  
_Erythrina tomentosa_ R.Br. ex A.Rich.

Deciduous tree to 15 m tall with rounded crown, bark rough, corky, branchlets with stout curved prickles; leaves 3-foliolate, leaflets ovate, stilt, apex rounded, velvet; flowers bright red, in dense erect racemes; pods 1–to 10-seeded, constricted between seeds; leaves red and black in wooded grassland, rocky hills, and miombo woodland; 2,100–2,100 m. Zimba- bwe to Ethiopia.

Source.  
Brummitt (1973: 64).


Flemingia grahamiana Wight & Arn.  
*Moghania rhodocarpa* (Baker) Hauman; *Humularia grahamiana* (Wight & Arn.) Kunze

Erect subshrub to 2 m tall, stems silky hairy at first; leaves 3-foliolate, hairy to velvety; flowers in short axillary racemes, greenish or yellowish white; pods oblong; inflated, 9–12 mm long; in various types of woodland, submontane grassland; 480–1,800 m. Widespread in Africa; also in India and S.E. Asia.

Source.  


Humularia apiculata (De Wild.) P.A.Duvign.  
*Humularia bakeriana* (De Wild.) P.A.Duvign.; *Humularia iuentensis* (De Wild.) P.A.Duvign.

Erect or prostrate branching annual or short-lived perennial to 0.7 m tall, stems hairy, 4–5 seeded; in secondary scrub and margins of evergreen forest, 500–2,250 m. Zimbabwe to W. Africa and Ethiopia.

Source.  
University of Zambia Herbarium (UZL).


Humularia decampsii (De Wild. & T.Durand) P.A.Duvign.  
*var. abercognensis* P.A.Duvign.  
*Humularia decampsii* var. _nyassica_ P.A.Duvign.

Low shrub 0.4–1.5 m tall, stems densely scabrid; leaves 4–8-foliolate, hairy, at least below, margins finely toothed; flowers yellow, pod 1-segmented kettle drum-shaped; in miombo woodland and montane grassland; 900–1,100 m. Zambia, N. Malawi, and D.R.C.

Source.  

Malawi. Nyika Plateau, 8 km N.W. of Muzengapakweru, 1972, Syngre 452 (K).

Humularia drepanocephala (Baker) P.A.Duvign.  
*var. drepanocephala_  
_Geissaspis drepanocephala_ Baker

Erect herb 200–400 mm tall, with tufted woody stems, densely hairy, root-stock massive; leaves 2-foliolate, leaflets sessile, obcordate, stipules large, 2.8–2.2 mm long, obovate, glabrous; flowers cream to orange-yellow; pods semicircular, glabrous; in grassland, miombo, and _Uapaca_ woodland, 930–2,100 m. Malawi, Zambia, D.R.C., and Tanzania. Both _var. bombei_ and _var. forcipiformis_ occur in northern Malawi and could well also occur on Nyika.

Source.  


Indigofera astragalina DC.  
Erect or spreading annual to 1.5 m; leaflets mostly 9–11, pilose on both surfaces; pods more or less tetragonal, 12–20 mm long, white-hairy, up to 6-seeded; a weed of cultivation and in over-grazed grassland; 250–1,800 m. Widespread in Africa; also in India and S.E. Asia.

Source.  


Indigofera atriceps Hook. f. subsp. _atriceps_  
Coarsely branching herb to 2 m, all parts hairy; leaves with 7–11 leaflets, 2-branched hairs appressed, stipules subulate; pod straight, 10 mm long, hairy, 4–5-seeded; in secondary scrub and margins of evergreen forest, 1,000–3,000 m. Malawi to W. Africa and Ethiopia.

Source.  

Malawi. Nyika Plateau, Makhango, 2000, Salubeni & Mwanyambo 6753 (MAL); South Circular Route, 2000, _Koekemoer_ 1837 (PRE).

Indigofera dendroides Jacq.  
Erect annual, slightly branched, to 1.3 m; leaflets 11–27, sparsely hairy throughout; pods more or less tetragonal in section, 8–12 seeded; grassland and marshy places, also in cultivated areas, 0–1,500 m. Zimbabwe to W. Africa and Sudan.

Source.  


Indigofera emarginella Steud. ex A.Rich. f.var.  
Soft woody shrub to 2 m, stems ribbed and minutely hairy, leaflets 7–11, hairy on both surfaces; pods straight, pointed, 15–22 mm long, brown hairy, 4–5 seeded; forest margins, miombo woodland and grassland; 500–2,250 m. Zimbabwe to W. Africa and Ethiopia.

Source.  
No country given.

Indigofera fulvopilosa Brenan  
Erect or prostrate branching annual or short-lived perennial to 0.7 m tall, all covered in brown hairs; leaflets 1–5, elliptic-oblong, to 23 mm long; flowers in 5– to 20-flowered racemes; pods tetragonal-cylindrical, 12–20 mm long, hairy; along roadsides, in grassland, and forest margins; 500–2,100 m. Zimbabwe to Uganda and Sierra Leone.


Indigofera fuscosetosa Baker  
Very similar to _I. trachyphylla_, but the leaves wider (to 20 mm) and the pod hairs more or less black; in upland open or wooded grassland; 1,400–2,100 m. N. Malawi, D.R.C. (Katanga) and S. Tanzania.


Indigofera garckeana Vatke  
_Indigofera tetragona_ Lebrun & Taton; _Indigofera rhynchocarpa_ Welw. ex Baker var. _quadrangularis_ Berhaut

Soft woody shrub to 3 m, stems 3–4 angled or winged, hairy; leaflets usually 5–9, hairy; pods upturned, pointed, 50–60 mm long, hairy, 13–17 seeded; in wooded grassland and deciduous woodland, 500–2,200 m. Zimbabwe to W. Africa and Ethiopia.

Source.  


Indigofera hedyantha Eckl. & Zeyh.  
_Indigofera goetzii_ Harms

Stiffly erect woody herb to 1.5 m tall; leaflets 7–11, glabrous above, sparsely hairy below; pods cylindrical, to 40 mm long, ca 8 seeded; in montane grassland, 1,400–2,600 m. South Africa (E. Cape) to Kenya.

Malawi. Nyika Plateau, without locality, collector unknown (Mill 1979, Patel 1999); _Vitinthiza_ Hill, 2000, Mwanyambo 570 (MAL).


No country given.  
Flemingia grahamiana
Del. Sandie Burrows

Humularia apiculata
Del. Sandie Burrows

Kotschya thymodora subsp. septentrionalis
Del. Sandie Burrows

Indigofera hedyantha
Del. Sandie Burrows
Indigofera hilaris Eckl. & Zeyh. var. microscypha (Baker) Gillett

Indigofera nyikense Baker; Indigofera microscypha Baker

Much-branched perennial to 400 mm tall, all parts set with longish 2-branched hairs; leaflets in 3-foliolate or with 7 leaflets, oblanceolate to narrowly elliptic, to 15 x 5 mm; flowers in a raceme of 5–10 white flowers; pods cylindrical, 10–14 mm long, with densely spreading hairs; in montane grassland; 1,000–2,200 m. This variety is endemic to the Nyika Plateau.


Indigofera holderi Baker & Martin subsp. holderi

Soft shrub to 2.5 m, stems 3-angled or narrowly winged; leaves with 11–17 leaflets, sparsely hairy; pods to 45 mm long, cylindrical, 6–8 seeded; in upland grassland and forest margins, 1,200–2,400 m. South Africa (Northern Province) to D.R.C. and S. Tanzania.

Malawi. Nyika Plateau, without locality (northern end), collector unknown (Patel 1999).

Indigofera longibarbata Engl.

Sub-woody annual to 1.3 m, stems reddish, pilose; leaflets 9–13, white-pilose on both sides; pods to 8 mm long, black-pilose, 3-seeded; in montane grassland and forest margins; 1,300–2,500 m. South Africa to Nigeria and Ethiopia.

Malawi. Nyika Plateau, without locality (northern end), collector unknown (Patel 1999); Wovwe River catchment area, 2000, Willis 163 (MAL, PRE).

Indigofera lyalili Baker f. subsp. nyassica Gillett

Shrub or small tree 2–6 m tall; flowers crimson; in secondary growth. N. Mozambique and Malawi (only listed for Mt. Mulanje and Gurue in Gillett (1958)).

Malawi. Nyika Plateau, without locality, collector unknown (Mill 1979); Chisanga Falls slope, 2000, Mwanyambo 491 (MAL).

Indigofera milne-redheadii Gillett

Erect slender annual to 300 mm tall; leaflets 3–17, variously hairy on both sides, stipules linear; pods 10–15 mm long, straight, densely covered with short appressed hairs, 6–9 seeded; on steep, stony or sandy places in miombo woodland; 900–1,100 m. Malawi, Zambia, Tanzania, and D.R.C. (Katanga).


Indigofera mimosoides Baker var. mimosoides

Annual herb, erect or not, to 1 m tall, stems reddish with white hairs; leaflets 3–11, elliptic, rarely more than twice as long as broad, hairy below, but not on margins; pods straight, up to 10 mm long, hairy, 3–5 seeded; in montane grassland; 1,150–2,300 m. Mozambique and Zimbabwe to Angola, Cameroon, and Ethiopia.


Indigofera nyikense Baker

Indigofera patula Baker (hairy form)

Indigofera hilaris sensu Gillett (1958: 61)

Perennial herb branching basally, stems hairy and glandular; leaflets 7, oblanceolate, mucronate, densely white-haired; flowers in axillary racemes, red; pods sessile, cylindrical. Ecological information lacking. Described from Malawi, related to I. mimosoides var. viscidior. Possibly a Nyika endemic.


Malawi. Nyika Plateau, 6,000–7,000’, 1896, Whyte s.n. (K, holotype); without locality (northern end), collector unknown (Patel 1999).

Indigofera peltata Gillett

Perennial with woody rootstock and erect more or less glabrous annual shoots to 300 mm tall, leaves simple (1-foliolate), peltate, ovate, to 140 x 100 mm; pods unknown; in fire-prone deciduous woodland on hillsides, Malawi, S. Tanzania, and D.R.C. (Katanga). Probably rare. The only known leguminous plant with peltate leaves.


Indigofera roseo-caerulea Baker f.

Soft woody shrub to 3 m, stems ribbed; leaflets 11–21, to 25 x 14 mm, hairy on both sides; pods ca 40 mm long, ca 8 seeded; in montane secondary scrub, 1,500–3,000 m. Nyika to E. D.R.C. and Ethiopia. Nyika is the southern extremity of this species.

Malawi. Nyika Plateau, without locality (northern end), collector unknown (Patel 1999); Msuzinandi, 2000, Salubeni & Mwanyambo 6819 (MAL).


Indigofera subulifera Baker

Annual to 0.5 m tall, stems reddish, finely hairy; leaflets (7)–9–11, elliptic, apical; inflorescence in hairy racemes, flowers pink, but set with silky white hairs; pods ca 5 mm long x 1.5 mm wide, 2-seeded, finely hairy; on rocky soils in deciduous woodland; ca 900 m. Zimbabwe to Angola, D.R.C., and Malawi. Very closely allied to I. mimosoides var. brachycarpa.


Indigofera thomsonii Baker f.

Perennial herb with woody rootstock and hairy stems; leaves 1-foliolate below (to 80 x 10 mm), 3–5-foliolate above (leaflets to 50 x 4 mm); pods to 25 mm long, hairy, 7–10 seeded; in grassland, 1,200–2,100 m. Malawi, Zambia, D.R.C. (Katanga) and S. Tanzania.


Indigofera trachyphylla Benth. ex Oliv.

Indigofera johnstonii Baker f.

Annual herb to 0.5 m high, stems with white hairs; leaves simple, linear-lanceolate, to 15 x 7 mm, sparsely hairy on both sides; pod 4–6 mm long, with brown and white hairs, with ca 4 seeds; in miombo and other woodlands; 850–1,750 m. Malawi, Mozambique, N.E. Zambia, D.R.C. (Katanga) and S. Tanzania.


Kotschya aesculynomenoides (Welw. ex Baker) Dewit & P.A.Duvign.

Smithia spherocephala Baker; Smithia rauzenscarozensii Baker f.

Erect aromatic shrub 0.5–3 m tall, stems covered with sticky hairs; leaves 16–34-foliolate, subglabrous; flowers white to blue-violet; pods of 1–2 segments; in grassland, thicket/scrub, forest margins, miombo woodland; 1,350–2,550 m. Malawi to Angola, D.R.C., and Kenya.


Zambia. Nyika Plateau, without locality, 1962, Verboom 628 (K); Kangampande Mt. (Chowo Forest), 7,000’, 1952, White 2574 (FHO).

Kotschya africana Endl. var. latifoliola Verdc.

Kotschya ugenensis sensu White (1962: 158)

Erect shrub 1–5 m tall, stems with glandular hairs; leaves, 20–42-foliolate, hairy or not; flowers orange-yellow, veins red-purple; pods with 4–9 segments; hairy; in fringing forest, on seepage zones; 1,153–1,260 m. Confined to the Nyika Plateau, but perhaps only a variant of the Tanzanian/Mozambican K. ugenensis (Taub.) E.White.


Zambia. Nyika Plateau, near top of Kangampande Mt. (Chowo Forest), White 2557 (K, holotype), FHO; without locality, 1962, Verboom 631 (K).

Kotschya carsonii (Baker) Dewit & P.A.Duvign. subsp. carsonii

Erect shrub to 2 m tall, stems glandular-sticky, with golden hairs; leaves 14–26-foliolate; flowers orange-yellow; pods of 2–3 segments, hairy; in Brachystegia woodland, bush land, moorland, peaty swamps, and forest edges; 1,000–1,800 m. Mozambique to Angola, D.R.C., and S. Tanzania.
**FABACEAE**


**Zambia.** Nyika Plateau, without locality, 1962, Verboom 637 (K).

**Kotschya eurycalyx** (Harms) de Wit & P.A.Duvign. subsp. *venulosa* Verdc.

Erect or spreading herb 120–500 mm tall, stems arising from a woody rootstock, young stems brightly lax; leaves 5- to 10-foliolate, leaflets more or less falcate, subglabrous; flowers bright blue; pods of 1–3 segments, densely hairy; in montane grassland with *Protea* and *Dissois*. 1,470–1,900 m. Malawi, Zambia, and S. Tanzania


**Kotschya recurvifolia** (Taub.) F.White subsp. *recurrifolia* ●

Smittia *recurvifolia* Taub.  ❖

Very closely related to *K. uguenensis* (below), but has a calyx 5.5–10 mm long (cf. 1.2–1.65 mm long in *K. uguenensis*); on forest margins, scrub, rank grassland, often in marshy areas; 1,500–3,200 m. Northernmost Zambia/Malawi border and Tanzania.


Malawi. Nyika Plateau, 10 km from Kasaransha View point, Brummitt 11873 (K).

**Kotschya uguenensis** (Taub.) F.White

Smittia *uguenensis* Taub.  ❖

Shrub to 400 mm tall, or small tree of 5 m, stems covered in yellowish sticky hairs, sticky; leaves 30- to 44-foliolate; flowers yellow; pods of 1–3 segments, densely hairy; flowering standard maroon to blackish; pods up to 1,200–2,250 m. South Africa to Nigeria and Ethiopia. Nyika is the southern limit of this species.

**Source.** Brummitt (1973: 65).


**Lotus discolor** E.Mey. subsp. *discolor* ❖

Rootstock woody, stems erect or straggling to 700 mm long, hairy; leaves pinnate with 5 pairs of leaflets, leaflets cuneate-oblancoateolate, hair; inflorescence an umbel of 2–7 flowers, peduncle mostly more than 40 mm long; flowers white with pink markings; pods straight, ca 25 mm long, 8-seeded; in montane grassland, 1,200–2,250 m. South Africa to Nigeria and Ethiopia

**Source.** Brummitt (1973: 65).


**Lotus goetzei** Harms  ❖

Rootstock woody, massive, stems, prostrate, ascending or bushy, to ca 1 m tall, hairy, leaflets 3- to 5-foliolate, hairy; inflorescence a 1- to 6-flowered umbel, peduncle usually less than 40 mm long, flowers white with reddish markings; pods up to 25 mm long, 16-seeded or less; in montane forest, scrub, and forest margins, 1,300–3,700 m. Malawi to Ethiopia. Nyika is the northwestern limit of this species.

**Source.** Brummitt (1973: 65).


**Macrotyloba axillare** (E.Mey.) Verdc. var. *macrantha* (Brenan) Verdc.  ❖

Perennial herb with climbing or trailing stems; leaves pinnately 3-foliolate; flowers white to green or yellow, 20–24 mm long; pods linear-oblong, 30–80 x 6–8 mm, hairy or not; miombo woodland, grassland, regenerating forests, dambo margins, roadsides; 1,200–1,600 m. Zimbabwe, Mozambique, and Malawi.


**Mucuna coriacea** Baker /subsp. Climbing or trailing herb or climber to 4.5 m long; most parts covered in rusty stinging hairs; leaves 3-foliolate, leaflets elliptic to obliquely ovate, 35–90 x 30–75 mm, velvety; flowering standard maroon to blackish; pods 50–70 x 10–15 mm, curved, densely covered in stinging hairs; in miombo woodland, forest margins, thicket; up to 1,250 m. Subspecies not established.


**Mucuna poggei** Taub. subsp. *pesa* (De Wild.) Verdc.  ❖

Small erect shrub 0.9–2.4 m tall, stems erect, golden-hairy when young; leaves greyish or rusty pubescent; flowering standard very dark purple/
Lablab purpureus subsp. uncinatus
Del. Sandie Burrows

Lathyrus hygrophilus
Del. Sandie Burrows

Lotus discolor subsp. discolor
Del. Sandie Burrows

Macrotyloma axillare var. macrantha
Del. Pat Halliday

Lotononis stolzii
Del. Sandie Burrows
Mucuna stans  
Del. Sandie Burrows

Neonotonia wightii subsp. petitiana var. mearnsii  
Del. Sandie Burrows

Ormocarpum kirkii  
Del. Pat Halliday

Otholobium foliosum subsp. foliosum  
Del. Christine Grey-Wilson
blackish; pods oblong, 35–68 x 8–14 mm, densely covered in blackish to golden slightly irritant hairs; in miombo and allied woodlands, often in grassy places; 1,290–1,800 m. N. Mozambique to Nigeria and Kenya.


**Malawi.** Nyika Plateau, S. slopes of Kowaizo, 1972, Brummitt & Synge 187 (K, MAL, SRG).

**Neonotonia wightii** (Wight & Arn.) Lackey subsp. petitiana (A.Rich.) Lackey var. mearnsii (De Wild.) Lackey

**Glycine wightii** (Wight & Arn.) Verdc. subsp. petitiana (A.Rich.) Verdc. var. mearnsii (De Wild.) Verdc.

Perennial climber to 4.5 m tall, woody basally, stems glabrous to reddish-purple; leaves 3-foliolate, leaflets ovate to elliptic, densely velvety to hairless; flowers white to mauve, in racemes; pods linear, glabrous to densely hairy; in forest, secondary grassland, woodland; 1,340–2,900 m. (var. mearnsii):

Malawi, Zambia, Tanzania, and Kenya.

**Malawi.** Nyika Plateau, without locality, collector unknown (Mill 1979).

**Ormocarpum kirkii** S.Moore

**Ormocarpum vibratectum** sensu J.Léonard

Shrub or small tree 2–9 m, bark rough, corky; leaves clustered on short shoots, imparipinnate; flowers in 1- to 3-flowered racemes, pinkish or purple; pods coiled within the persistent corolla; in various types of woodland or wooded grassland; 100–1,500 m. South Africa to D.R.C. and Somalia.

**Malawi.** Nyika Plateau, without locality, collector unknown (Patel 1999).

**Otholobium foliosum** (Oliv.) Stirton subsp. foliosum

**Psoralea foliosa** Oliv.

Woody shrub, somewhat aromatic, to 3 m tall, stems densely hairy; leaves 3-foliolate, leaflets ob lanceolate, dotted with translucent glands; flowers bluish-white, in dense terminal clusters; pods simple, oval, with prominent reticulate venation; in montane grassland and scrub; 1600–3100. South Africa to E. Zambia and Kenya.


**Malawi.** 11.2 km N. of entrance to Nyika National Park, 1969, Pawek 2880 (K).

**Zambia.** Nyika Plateau, upper slopes of Kangampande Mt. (Chiswo Forest), White 2552 (FHO, K).

**Pericopsis angolensis** (Baker) van Meeuwen

**muwanga**

Deciduous tree to 17 m, trunk often crooked, bark pale grey or whitish brown, somewhat flaking; leaves pinnate with 7–10 alternate leaflets; pod flat, winged, with one seed; in deciduous woodland, sometimes in miombo or wooded grassland; 900–1,650 m. Zimbabwe to Angola, D.R.C., and Tanzania. The timber is reddish, strong, and much used for carvings and furniture.

**Source.** Brummitt (1973: 65).

**Malawi.** Nyika Plateau, Chipome Valley, 1972, Synge 273 (K, MAL).

**Pseudastrhia hookeri** Wight & Arn. var. hookeri

**Erect to arching shrub 1–3 m tall from a thick rhizome, stems strongly ribbed, hairy; leaves 3-foliolate, leaflets elliptic to obvate-elliptic, rough above, hairy below; flowers reddish purple to blue or white; pods straight, 3- to 12-seeded, finely hairy; in grassland, scrub, old cultivation; sea-level to 2,000 m. South Africa to Cameroon and Ethiopia.

**Malawi.** Nyika Plateau, N. of Mwanda Mountain, 2000, Willis & Luhanga 181 (MAL, PRE); without locality, collector unknown (Mill 1979).

**Psophocarpus lancifolius** Harms

Perennial climbing herb, stems yellowish hairy; leaves 3-foliolate, leaflets obovate to elliptic, 22–110 mm long, hairy or not; flowers blue or violet-purple; pods rectangular, markedly winged, sparsely hairy; in grassland, wooded grassland, and forest margins; 1,100–2,550 m. Malawi to Nigeria and Kenya.

**Malawi.** Nyika Plateau, without locality, collector unknown [probably Pawek] (Mill 1979); Mpopoti Hill, 2000, Salabeni & Mwanyambo 6784 (MAL).

**Pterocarpus angolensis** DC.

**mukwa, milombwa**

Large spreading deciduous tree to 20 m tall, bark rough dark grey, sap red; leaves pinnate with 5–9 pairs of leaflets plus a terminal leaflet, hairless; flowers in yellow clusters appearing before the leaves; pod unmistakable, a roundish papery disc with a central tuft of spiny hairs on each side; in various types of mixed woodland; 0–1,500 m. Widespread in southern tropical Africa. The timber is much valued for making furniture.

**Malawi.** Nyika National Park, without locality or collector (Patel 1999).

**Rhynchosia buchananii** Harms

Scrambler to 1.5 m or an erect shrub; leaves 3-foliolate, hairy; flowers yellow with brown veins; pods sticky-hairy; in miombo, Acacia and Protea woodland, and grassland; 950–1525. Zimbabwe, Mozambique, Malawi, and D.R.C. (Katanga).


**Malawi.** Nyika Plateau, Chipome Valley, 1972, Synge 220 (K).

**Rhynchosia clivorum** S.Moore var. pycnantha (Harms) Verdc.

Erect branched shrub 0.9–3 m tall, stems hairy, leaflets 3, elliptic-oblong or elliptic-ovate, 25–110 mm long, hairy, veins raised below; flowers yellow, veined brown; pods 17–20 mm long, yellow-bristly; in montane grassland with Protea and Agarista (Agarista) or secondary scrub; 2,100–2,550 m. Tanzania (Mbeya) to Malawi (Mt. Mulanje).


**Malawi.** Nyika Plateau, 2 km W. of Muzengapakwera, 1972, Synge 331 (K); grassland, 2,400 m, 1964, Robinson 6247 (K).

**Zambia.** Nyika Plateau, 3.2 km S.W. of Rest House, 1958, Robson & Angus 194 (BM, K).

**Rhynchosia divaricata** Baker

Erect plant with seasonal stems arising from a woody rootstock, stems with dense reddish hairs; leaflets 3, hairy; flowers axillary, yellowish with purple veining; pods 28–32 mm long, ob lanceolate-falcate, finely hairy; in miombo and other woodland types; 100–1,200 m. Zimbabwe, Malawi, Mozambique, Zambia, D.R.C., and S. Tanzania.

**Source.** Flora zambesiaca 3(5): 189 (2000).

**Malawi.** Nyika Plateau, without locality, 1896, Whyte s.n. (K, holo.).

**Rhynchosia goetzei** Harms

Erect or scrambling shrub, stems much branched, red-brown; leaflets 3, ovate to oblance-rhomboid, 15–48 mm long, hairy; flowers yellow, veined reddish brown; pods straw-coloured, 20–30 mm long, hairy-glandular; 600–1,500 m. Zimbabwe to Angola, D.R.C., and Tanzania.

**Source.** Patel (1999).

**Malawi.** Nyika Plateau, without locality, collector unknown (Mill 1979).

**Rhynchosia insignis** (O.Hoffm.) R.E.Fr.

Sticky erect pyrophytic subshrub 140–600 mm tall, rootstock woody, stems several; hairy; leaflets 1–3, ovate to elliptic, 12–90 mm long, velvety; flowers appearing before the leaves, yellow, veined purple; pods falcate, to 26 mm long, hairy; in miombo woodland, montane grassland; 1,410–2,250 m. Zimbabwe to Angola and Tanzania.


**Malawi.** Nyika Plateau, Katwimbi Forest, 1969, Pawek 2885 (K).

**Rhynchosia luteola** (Hiern) Schumann var. luteola

**Rhynchosia sericosema** Harms

Robust sticky climber or subshrub 0.3–1 m tall, stems with yellow sticky hairs; leaflets 3, ovate to rhomboid, 20–140 mm long, hairy; flowers yellow, veined red-brown outside; pods 30–40 mm long, with long yellow bristly hairs, compressed; in evergreen forest and miombo woodland; 300–900 m. Mozambique and Zimbabwe to Tanzania and Nigeria.

**Source.** UZL

**Zambia.** Nyika Plateau, below Rest House on path to N. Rukuru waterfall (Chisanga Falls), 2,150 m, 1958, Robson 411 (UZL).
Pericopsis angolensis
Del. Sandie Burrows

Psophocarpus lancifolius
Del. Sandie Burrows

Pseudarthria hookeri var. hookeri
Del. Sandie Burrows

Pterocarpus angolensis
Del. Sandie Burrows
Rhynchosia minima (L.) DC. f.var. ♦

Slender climbing or prostrate, multistemmed herb, rootstock woody; leaflets 3, roundish to ovoid, 9–60 mm long, hairy or not; flowers yellow; pods oblong-falcate, 6–20 mm long, hairy or not. Variety not established.


Rhynchosia nyasica Baker

Slightly sticky perennial erect herb or subshrub; stems sticky, hairy; leaflets 3, ovate, round to kidney-shaped, thinly hairy; flowers yellow, sometimes veined purple; pods 25–34 × 8–10 mm, oblong-falcate, finely hairy-glandular; in miombo woodland or wooded grassland, 900–1,670 m. Zambia to Nigeria and Sudan.

Zambia. Nyika National Park, Kaperekezi Road, 2000, Phiri 3846 (UZL).

Rhynchosia nyikensis Baker

Perennial climber to 3 m long, stems rusty-hairy, leaflets 3, ovate, 28–80 mm long, hairy; inflorescence rusty-hairy, flowers yellow inside, red-brown outside; pods ca 23 mm long, densely yellow-hairy; on forest margins, in forest or in secondary scrub; 1,350–2,220 m. Malawi, Zambia, and S. Tanzania.


Malawi. Nyika Plateau, without precise locality, 1896, Whyte s.n. (K, syn.); without precise locality, Dowsett-Lemaire 126 (herbaria not stated).

Rhynchosia procurrens (Hiern) Schumann subsp. floribunda (Baker) Verdc.

Rhynchosia floribunda Baker

Robust or slender climber or trailer; leaflets 3, rhomboid to obovate, 20–130 mm long; inflorescence sticky-hairy, erect; flowers orange or reddish; pods scarcely exceeding the calyx; in ‘bush land’; 1,080–1,650 m. Zambia to E. D.R.C. and Kenya.


Malawi. Nyika Plateau, 6 km E.S.E. of Nganda, 1972, Brummitt, Munthali & Syngue 123 (K, MAL); without precise locality, 2000, Thera 3052 (MAL); Nchenachenha, on spur of Nyika escarpment, 6,500’, 1953, Chapman 104 (FHO).

Tephrosia aequilata Baker subsp. australis Brummitt

Branching shrub to 3 m tall; leaves with 13–21 leaflets, densely hairy below, sparsely so (or glabrous) above; flowers purple; pods white-hairy, 3–6 seeded; montane grassland and scrub, 1,000–2,500 m. Zimbabwe to E. D.R.C. and Kenya.


Malawi. Nyika Plateau, 8 km E. of Nganda, 1972, Brummitt, Munthali & Syngue 161 (K, MAL); without locality, precise locality, 2000, Thera 3052 (MAL); Nchenachenha, on spur of Nyika escarpment, 6,500’, 1953, Chapman 104 (FHO).

Tephrosia dasyphylla Baker subsp. dasyphylla

Perennial from a woody rootstock, stems densely hairy, to 0.4 m tall; leaves 1- to 5-foliolate, glabrous; flowers purple; pods straight, up to 45 mm long, tomentose, 5–8 seeded; in upland grassland, 1,500–2,000 m. Zimbabwe to Angola and Tanzania.


Tephrosia interrupta Engl. subsp. elongatiflora Gillett ♦

Soft branching shrub to 4 m tall, stems hairy when young; leaves with 9–21 leaflets (4–10 pairs), glabrous above, hairy below; flowers purple; pods 80–90 mm long, densely tomentose, 10–13 seeded; in montane grassland, streamsides, and scrub margins, 1,350–2,000 m. Malawi, Mozambique, and Tanzania.


Malawi. Nyika Plateau, 8 km E. of Nganda, 1972, Brummitt, Munthali & Syngue 161 (K, MAL; SRGH).

Tephrosia nyikensis Baker subsp. nyikensis

Soft woody perennial to 2 m tall; leaves with 15–21 pairs of leaflets, hairless above, hairy below; inflorescence branched, flowers pink or purple; pods to 80 mm long, sparsely hairy, 9–14 seeded; in grassland and scrub, 1,500–2,100 m. Malawi, Mozambique, and Tanzania.


Malawi. Nyika Plateau, without locality, 6,000–7,000’, 1896, Whyte s.n. (K, holotype); E. foot of Nganda, 1972, Brummitt, Munthali & Syngue 121 (K, MAL; SRGH).

Tephrosia paniculata Baker

Erect annual or biennial to 2 m tall; leaves 3- to 5-foliolate, elliptic-oblong to lanceolate, with white hairs on both surfaces; flowers orange to brick-red; pods slightly upcurved, brown-hairy, 10–11 seeded; in grassland, hillside thickets, and swamps; 1,100–2,400 m. Zimbabwe to Sierra Leone and Kenya.


Trifolium semipilosum Fresen. var. glabrescens Gillett ♦

Perennial herb with prostrate hairy stems rooting at the nodes; leaves 3-foliolate, leaflets cuneate-obovate, emarginate, glabrescent; flowers in round...
Rhynchosia minima
Del. Sandie Burrows

Sesbania macrantha var. macrantha
Del. Sandie Burrows

Sphenostylis stenocarpa
Del. Sandie Burrows

Tephrosia interrupta
subsp. elongatiflora
Del. William Trevithnick
heads, white or pale pink; pods 5–6 x 2.5 mm, seeds dull yellow to light brown; in moist montane grassland, 1,200–2,700 m. Malawi, Tanzania, to Ethiopia; perhaps not native in Malawi.

**Vicia paucifolia** Baker subsp. *malosana* (Baker) Verdc. 

*Linbyrus hygrophilus* sensu Cufod., Enum.: 399, 1955, non Taub.; *Vicia paucifolia* Baker var. *malosana* (Baker) Brenan

Straggling perennial herb 0.3–1 m long; leaflets 2–4, linear to narrowly elliptic, thinly hairy, rachis ending in a simple tendril; flowers blue or violet; pod flat, narrowly oblong, 5–11 mm long, hairless; in grassland; thin vegetation in marshy places; 990–3,000 m. Malawi to Cameroon and Ethiopia.

**Vigna frutescens** A.Rich. subsp. *frutescens* var. *frutescens*

Prostrate or climbing perennial herb, or erect after fires, then flowering precociously; stems velvety; leaves 3-foliolate, ovate to oblong-obovate or rhombic, thinly to densely velvety; flowers mauve-lilac or white, scented; pods held erect, 60–110 x 4–5 mm, with 12–16 seeds, hairy; in seasonally burnt grassland and woodlands; 500–2,100 m. Mozambique to Nigeria and Ethiopia.

**Vigna heterophylla** A.Rich.

Annual or perennial climber, ca 1 m long, stems dark rusty-hairy; leaves 3-foliolate, leaflets ovate to lanceolate, hairy; flowers blue or violet; pods linear, 15–43 x 4.5–6 mm, flattened, densely dark rusty-hairy; in grassland, sometimes in marshy areas; 1,680–2,010 m. Zambia and Malawi to Cameroon and Ethiopia.

**Vigna luteola** (Jacq.) Benth.

*Vigna fischeroi* Harms

Twining or trailing perennial herb to 6 m long, stems densely rusty-hairy; leaves 3-foliolate, leaflets ovate to lanceolate, hairy on both surfaces; flowers yellow, sometimes tinged brown; pods linear, 40–80 mm long, flattened, rusty-hairy; in swampy grassland, montane grassland, forest margins; 1,000–2,250 m. Malawi to Cameroon and Ethiopia.

**Vigna oblongifolia** A.Rich. var. *oblongifolia*

Prostrate or climbing annual herb, stem slender, hairy; leaves 3-foliolate, leaflets ovate to linear-lanceolate, sparsely hairy on both surfaces; flowers yellow, calyx hairy; pods curved to more or less straight, 55–70 mm long, hairy; in wet areas, sometimes aquatic, sometimes a weed; 470–2,150 m. Tropical Africa.

**Vigna phoenicis** Brummitt

*Vigna pygmaea* R.E.Fries var. *grandiflora* Verdc.

Perennial pyrophyte with an elongate woody rootstock, stems hairy, to 300 mm tall; leaves 3-foliolate, leaflets 30–70 x 20–25 mm, hairy; inflorescence 100 mm tall, flowers mauve-pink; pods 20–40 x 2–3 mm, linear-cylindrical, hairy, with a curved beak; in seasonally burnt grassland and miombo woodland; 1000–2500 m. Malawi, Zambia, and Tanzania. Widespread on Nyika, rare elsewhere.

**Vigna platyloba** Welw. ex Hiern

Perennial climbing or trailing herb to 2 m long, stems hairy; leaves 3-foliolate, leaflets ovate to rhomboid-oblong, velvety; flowers mauve-violet, keel white; pods cylindrical, 40–90 x 6 mm, hairy, ca 12-seeded; in miombo woodland and scrub, often a weed; 700–1,800 m. Mozambique, Malawi, Zambia, Angola, and S. Tanzania.


**Vigna pygmaea** R.E.Fr.

Short erect pyrophyte with several stems 30–150 mm long from a woody rootstock; leaves 3-foliolate, leaflets elliptic to linear-oblong, nearly hairless; flowers mauve or violet with a yellow basal spot; pods more or less cylindrical, 30–40 x 2.5–3 mm, densely hairy, with a curved beak; in *Uapaca* woodland; 1,500–2,230 m. Zimbabwe to Angola, Cameroon, and Tanzania.

**Vigna unguiculata** (L.) Walp. subsp. *pawkei* Pasquet


Robust perennial with climbing stems, arising from a carrot-shaped rootstock; leaflets 3, rhombic or lanceolate, acute, scabrous; flowers large blue and white, scented; pod 8–10 x 2.5–5 mm, linear-cylindrical, scabrid; in evergreen forest and bush or swampy areas; 1,100–2,300 m. Common on Nyika and Viphya; also in Tanzania and Kenya.

**Zornia glochidiata** (Schumach. & Thonn.) Baker

Perennial climbing or trailing herb to 6 m long, stems hairy; leaves 3-foliolate, leaflets ovate to lanceolate, both surfaces velvety; flowers purple, pink or yellow; pods held erect, more or less cylindrical, hairy, 10–18 seeds; grassland and wooded grassland. Variety yet to be confirmed.

**Zornia lucida** (L.) A.Rich., var. minutiflora (Gillett 1958: 64).

If used in its true sense, as listed in most other early African Flora zambesiaca 3(5): 141 (2000).

**Zornia glochidiata** Reichb. ex DC.

Annual herb with numerous erect stems to 0.5 m tall; leaves with 2 leaflets, leaflets up to 40 mm long and 10 mm wide; flowers yellow to orange-yellow; pods divided into 4 distinct segments, set with strong bristles; weedy in disturbed areas over a wide range of habitats. Widespread throughout tropical Africa.


**Excluded species**

*Indigofera viscosa* Lam.

If this is *I. viscosa* sensu Brenan in Report *Vernay Nyasaland Expedition* (1953), then this taxon is *I. mimosoides* Baker var. *mimosoides* (Gillett 1958: 64). If used in its true sense, as listed in most other early African Flora zambesiaca 3(5): 127 (2000).

Zambia. Nyika Plateau, below Rest House on path to N. Rukuru waterfalls (Chisanga Falls), 2,150 m, 1958, *Robson & Angus* 407 (K).

**Vigna phoenicis** Brummitt

*Vigna pygmaea* R.E.Fries var. *grandiflora* Verdc.

Perennial pyrophyte with an elongate woody rootstock, stems hairy, to 300 mm tall; leaves 3-foliolate, leaflets 30–70 x 20–25 mm, hairy; inflorescence 100 mm tall, flowers mauve-pink; pods 20–40 x 2–3 mm, linear-cylindrical, hairy, with a curved beak; in seasonally burnt grassland and miombo woodland; 1000–2500 m. Malawi, Zambia, and Tanzania. Widespread on Nyika, rare elsewhere.

**Vigna platyloba** Welw. ex Hiern

Perennial climbing or trailing herb to 2 m long, stems hairy; leaves 3-foliolate, leaflets ovate to rhomboid-oblong, velvety; flowers mauve-violet, keel white; pods cylindrical, 40–90 x 6 mm, hairy, ca 12-seeded; in miombo woodland and scrub, often a weed; 700–1,800 m. Mozambique, Malawi, Zambia, Angola, and S. Tanzania.


**Vigna pygmaea** R.E.Fr.

Short erect pyrophyte with several stems 30–150 mm long from a woody rootstock; leaves 3-foliolate, leaflets elliptic to linear-oblong, nearly hairless; flowers mauve or violet with a yellow basal spot; pods more or less cylindrical, 30–40 x 2.5–3 mm, densely hairy, with a curved beak; in *Uapaca* woodland; 1,500–2,230 m. Zimbabwe to Angola, Cameroon, and Tanzania.

**Vigna unguiculata** (L.) Walp. subsp. *pawkei* Pasquet


Robust perennial with climbing stems, arising from a carrot-shaped rootstock; leaflets 3, rhombic or lanceolate, acute, scabrous; flowers large blue and white, scented; pod 8–10 x 2.5–5 mm, linear-cylindrical, scabrid; in evergreen forest and bush or swampy areas; 1,100–2,300 m. Common on Nyika and Viphya; also in Tanzania and Kenya.

**Zornia glochidiata** (Schumach. & Thonn.) Baker

Perennial climbing or trailing herb to 6 m long, stems hairy; leaves 3-foliolate, leaflets ovate to lanceolate, both surfaces velvety; flowers purple, pink or yellow; pods held erect, more or less cylindrical, hairy, 10–18 seeds; grassland and wooded grassland. Variety yet to be confirmed.

**Zornia lucida** (L.) A.Rich., var. *angustifolia* (Schumach. & Thonn.) Baker

Annual herb with numerous erect stems to 0.5 m tall; leaves with 2 leaflets, leaflets up to 40 mm long and 10 mm wide; flowers yellow to orange-yellow; pods divided into 4 distinct segments, set with strong bristles; weedy in disturbed areas over a wide range of habitats. Widespread throughout tropical Africa.

Trifolium semipilosum var. glabrescens
Del. Sandie Burrows

Vicia paucifolia subsp. malosana
Del. Sandie Burrows

Vigna vexillata
Del. Sandie Burrows

Zornia glochidiata
Del. Sandie Burrows
floras, then this taxon is referable to *I. colotea* (Burm. f.) Merr. (Gillet in F.T.E.A. Papilionoideae (1): 266, 1971). Since no specimen is quoted for this collection, it is here excluded.

**Malawi.** Nyika Plateau, without locality, collector unknown (Mill 1979).

**Indigofera** sp.

New record according to Patel: t. 4 (1999), but no specimen or details given.

**Malawi.** Nyika Plateau, without locality, collector unknown (Patel 1999).

**Pericopsis bussei**

This name, without authority or collecting details, is listed in Patel (1999), but the name is not listed in either F.T.E.A. or Lebrun & Stork (1992).

**Malawi.** Nyika Plateau, without locality, collector unknown (Patel 1999).

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**FLACOURTIACEAE**

*Aploia theiformis* (Vahl) Benn.  
*Aploia myrtiflora* galpin  
*Tumbuka*: kamchere; *Yao*: nakaseje

Evergreen shrub or tree to 18 m tall, twigs sometimes faintly zigzagging, with two faint lines running down the twig from the petiole; leaves alternate, distichous, shiny green above, hairless, margins finely serrate; flowers 1–3 in leaf axils, white, sweetly scented, with numerous stamens; fruit a white fleshy berry; in or on margins of montane forest 1,250–2,450 m. South Africa


**Zambia.** Nyika Plateau, Manyenjere, Kasomu and Chowo Forests, without collecting details (Dowsett-Lemaire 1985: 316); 5.5 miles S.W. of Rest House, 2,150 m, 1958, *Robson* 349 (UZL).

**Casearia battiscophei** R.E.Fr.  
*Tumbuka*: kambwiri; *Chichewa*: ngambo; *Kinyarwanda*: ngambo; *Swazi*: lebamba; *Tswana*: aafrika se baphe; *Ndebele*: faneke

Tall evergreen tree to 30 m with rough greyish bark; leaves alternate, oblong-elliptic, 80–220 mm long, hairless, with circular gland dots, base asymmetrical; flowers small, greenish, in axillary clusters; fruit an elongate capsule 13 mm long; in montane and mid-altitude forest; 1,600–2,250 m. Zimbabwe, Mozambique, Malawi, Tanzania, Uganda, and Kenya. Widespread, but rare on the Nyika. The capsules are eaten by Rameron Pigeons.

**Source.** *Brummitt* (1973); *White* et al. (2001).  
**Malawi.** Nyika National Park; 3 km W. of Muzengapakweru, 1972, *Synge* 300 (K); Juniper Forest Reserve, *White* 2587h (White et al. 2001).


**Dovyalis abyssinica** (A.Rich.) Warb.  
*Tumbuka*: kabulu; *Swazi*: bamps

Shrub or small tree to 8 (15) m tall, branches with or without slender spines; leaves ovate-oblong, 40–90 mm long, more or less hairy with age, margins entire, slightly wavy; flowers 1–3 on long stalks in leaf axils; fruit longish, 25–90 mm long, thin, sharply serrate leaves it bears some resemblance to young plants of *D. lucida* Sim’.


**Dovyalis macrocalyx** (Oliv.) Warb.  
*Chichewa*: ng’amba (fruit), ngambo; *Yao*: mswwe

Spiny shrub or small tree to 7 (12) m, branches with long slender spines to 50 mm long; leaves narrowly ovate to elliptic, 25–90 mm long, thin, slightly glossy above, margin entire to minutely crenate; flowers axillary, 1–4 in a cluster; fruit a fleshy, red, 2-seeded berry, with the calyx lobes as long as the fruit; widespread in various forest types, 1,600–2,450 m. Zimbabwe to Angola, C.A.R. and Kenya.


**Zambia.** Nyika Plateau, Chowo Forest, 2,100 m, *Dowsett-Lemaire* 267 (K).

**Dovyalis macrocarpa** Bamps  
*Chichewa*: kabulu

Small to medium tree to 13 m tall; leaves mid-green, minutely hairy or more or less glabrous, margins serrate (young leaves) or entire in old specimens; flowers axillary, yellowish green; fruit a round woody capsule, splitting into 5 valves, seeds orange-red, sticky; in montane forest. A typical Afrotropic montane species, from the Cape Peninsula to Kilimanjaro.
Kiggelaria africana
Del. Sandie Burrows

Scolopia stolzii
Del. Sandie Burrows

Rawsonia lucida
Del. Sandie Burrows

Anthocleista grandiflora
Del. Sandie Burrows

Rawsonia lucida Harv. & Sond. ❖

Rawsona schlechteri Gilg

Evergreen shrub or small tree to 8(15) m, bark grey, smooth, flaking in large patches to paler below; leaves oblong-elliptic, stiffly leathery, subglossy above, hairless, margins prominently and sharply toothed; flowers axillary, white to yellow, fruit round, ca 25 mm diameter, yellow; an understorey species in evergreen forest; 1,600–2,200 m. South Africa northwards through eastern Africa to Kenya and Sudan.

Malawi. Nyika National Park, Kasyaula Forest (Dowsett-Lemaire 1985: 317); without locality or collecting details (Mill 1979).


Scolopia stolzii Gilg & Sleumer ❖

Small tree to 10 m tall, bark grey-brown, smooth, flaking, branches often spiny; leaves leathery, ovate-elliptic to elliptic-oblong, 50–120 mm long, concolorous; flowers single in leaf axils, more or less sessile; fruit ca 20 mm diameter, crowned with the persistent style; in riverine forest; 750–1,700 m. South Africa to Cameroon and Kenya.


Malawi. Nyika Plateau, below N. Rukuru waterfalls, 1,700–1,750 m, collection from the Flora zambesiaca region.


Scolopia theifolia Gilg

Much-branched shrub or tree to 10 m tall, bark smooth, greyish white; leaves leathery, ovate-elliptic, 35–65 mm long, hairless; flowers one to a few in leaf axils, more or less sessile; fruit oblong-ovoid, 10 mm long, red when ripe; in or on edges of montane forest; 2,250–2,300 m on Nyika. N. Malawi northwards to Ethiopia and Somalia. This is the only known collection from the Flora zambesiaca region.


Malawi. Nyika National Park, forest patch above Chelinda Bridge, Dowsett-Lemaire 246 (K).

Scolopia zeyheri (Nees) Harv.

Small evergreen tree 5–8 m tall, trunk of older trees armed with stout branched spines, young branches with straight spines; leaves leathery, 20–80 mm long, dull above, revealing a white line when the leaf is folded; flowers in axillary racemes; fruit up to 10 mm diameter; in drier types of montane forest, thicket, and moist woodland; 750–1,500 m. South Africa to Angola, Cameroon, and Ethiopia.


GENTIANACEAE

Anthocleista grandiflora Gilg ❖

forest fever-tree; Chichewa: nkunguwbw; Tumbuka: bekaveka, mgolya; Yao: ngungoungou

Tall evergreen tree to 35 m tall, with a clear bole and massive, unmistakable, simple leaves; leaves up to 700 x 250 mm, obovate, glossy green, hairless; flowers white or cream; a constituent of riverine or swamp forest, usually at lower altitudes below 1,800 m. South Africa to Kenya.


Chironia laxiflora Baker ❖

Spreading or suberect annual herb 0.3–1.5 m tall; leaves in distant pairs, ovate-cordate, 12–40 x 18–25 mm, amplexicaul at the base; flowers pink to red, in 2- to 7-flowered cymes; on damp sandy loam soils, in open miombo forest; 1,600–2,200 m. South Africa northwards through eastern, southern, and tropical Africa.


Malawi. Nyika Plateau, Kasaramba, 1967, Saluberi 723 (K, LISC, PRE, SRGH); Lake Kaulume, 2000, Burrows & Burrows 6864 (MAL, PRE); 2nd Trout Dam, 2000, Koekemoer 1795 (PRE).

Sebaea longicaulis Schinz

Sebaea crassifolia var. lanceolata Schinz; Sebaea macrosepalata Gilg; Sebaea oreophila Gilg

Erect annual herb to 0.6 m tall, from a perennial rootstock, stems branched or not, 4-ridged; leaves sessile, elliptic-lanceolate to almost round, 18 x 15 mm; flowers yellow, in few-flowered heads; in grasslands; 1,700–2,300 m. South Africa, Zimbabwe, Mozambique, Malawi, and the Cameroons.


Sebaea microphylla (Edgew.) Knobl.

Erect annual herb, sometimes parasitic, 40–400 mm tall; leaves oblong-ovate to triangular-lanceolate, 2.6–6 x 5–1.5 mm; flowers yellow, single or many, tube 4–6 mm long; in open woodland and grassland; 780–1,200 m. Zimbabwe to Angola, D.R.C., and Tanzania; not recorded from Malawi in Flora zambesiaca which, since we have not been able to confirm this collection, casts some doubt on this record.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Swertia abyssinica Hochst. ❖

Swertia porphyrantha Baker [Nyika Plateau, Whyte 147 (K)].

Erect annual herb to 650 mm tall, branches at the base or in the middle; leaves not basalY clustered, elliptic, 8–25 mm long; flowers white or cream, in long stalked clusters; in marshy grassland, seepage areas; 1,500–3,048 m. Malawi to Ethiopia and Cameroon.


Swertia curtioides Gilg

Erect annual herb to 300 mm tall, stem unbranched or branched from the base, 4-ridged; cauline leaves lanceolate, basal leaves ovate to ovate-oblong, apex rounded; flowers whitish or white with purple veins; on damp flat rocks amongst grass; 1,980–2,300 m. Malawi, Mozambique, and Tanzania.
Chironia laxiflora
Del. Sandie Burrows

Faroa acaulis
Del. Sandie Burrows

Swertia abyssinica
Del. Sandie Burrows

Geranium vagans
subsp. vagans
Del. Sandie Burrows

Sebaea leiostyla
Del. Sandie Burrows

Plants of the Nyika Plateau
Geranium incanum

Perennial creeping herb; leaves broadly ovate, deeply pinnatisect into 5 lobes, margins also deeply incised, hairy on both surfaces; flowers white, pink or mauve with deep veins; fruit a linear capsule (rostrum), the segments splitting and curling upwards towards the tip; in open moist habitats in montane grassland and forest margins; 1,500–2,560 m. Zimbabwe, Malawi, Mozambique, and Tanzania.


Malawi. Nyika National Park, without locality or collecting details (Patel 1997).

Sebaea sp.

Because this genus has been treated in Flora zambesiaca since the quoted collection was made, it is assumed that it is included within one of the species listed above.


Malawi. In forest 4 km W. of Nganda, 1972, Brunmitt & Syngre 78 (K, MAL, SRGH, PRE, LISC).

Geranium vagans Baker subsp. vagans

Semi-procumbent perennial herb; leaves broadly ovate, deeply pinnatisect into 5 lobes, each lobe further pinnatisect into linear lobes, hairy on both surfaces; flowers pink or mauve; fruit a linear capsule (rostrum), the segments splitting and curling upwards towards the tip; in open moist habitats in montane grassland and forest margins; 1,500–2,560 m. Zimbabwe, Malawi, Mozambique, and Tanzania.


Malawi. Nyika plateau, 1896, Whyte s.n. (K, holo); Kaulime Pond, 1956, Chapman 382 (BM, LISC); Mpopoti Hill, 2000, Salubeni & Mcyanambwa 6782 (MAL); Dambu Bridge, 2000, Kasakula 235 (LMA, MAL, SRGH).

Zambia. Nyika plateau, without precise locality, 1964, Benson 418 00.

Pelargonium apetalum P.Taylor

Creeping annual herb with ascending branched stems; leaves deltidoid to elliptic, 5 lobes, margins also deeply incised, hairy on both surfaces; flowers white, pink or mauve with deep veins; fruit a linear capsule (rostrum), the segments splitting and curling upwards towards the tip; in open moist habitats in montane grassland and forest margins; 1,500–2,560 m. Zimbabwe, Malawi, Mozambique, and Tanzania.


Malawi. Nyika plateau, 1896, Whyte s.n. (K, holo); Kaulime Pond, 1956, Chapman 382 (BM, LISC); Mpopoti Hill, 2000, Salubeni & Mcyanambwa 6782 (MAL); Dambu Bridge, 2000, Kasakula 235 (LMA, MAL, SRGH).

Zambia. Nyika plateau, without precise locality, 1964, Benson 418 00.
Pelargonium luridum
Del. Sandie Burrows

Gunnera perpensa
Del. Sandie Burrows

Streptocarpus wittei
Del. Sandie Burrows

Laurembergia tetrandra
subsp. brachypoda
Del. Maureen Church
broadly ovate, unlobed or shallowly 3- to 7-lobed; flowers usually without petals; fruit a beaked capsule; in open bush among rocks, also as a weed of cultivation; 1,500–2,200 m. Zimbabwe, Malawi, and Tanzania.


**Malawi.** Nyika Plateau, without precise locality, 1896, Whyte s.n. (K); Dembo Bridge, 2000, Thera 3004 (MAL).

**Pelargonium luridum** (Andr.) Sweet ❖

Perennial stemless herb with woody rootstock; leaves broadly ovate, very variably divided (pinnatisect), petiole 80–200 mm long; flowers on long stalks, with 5 whitish to pale yellow or pink petals; fruit a beaked capsule; in cool montane grassland and woodland; 800–2,300 m. South Africa to Angola, D.R.C., and Tanzania.


**Malawi.** Nyika National Park, Lake Kaulime, 1958, Robson 324 (BM, K, LISC, PRE, SRGH).

**Streptocarpus goetzei** Engl.

**Streptocarpus mabonii** Hook.

Herb with single leaf; leaves ca 150 x 120 mm, hairy; flowers several, medium violet with darker markings in the mark, petiole 80–700 mm long; flowers on long stalks, with 5 whitish to pale yellow or pink petals; fruit a beaked capsule; in montane grassland and woodland; 800–2,300 m. South Africa to Angola, D.R.C., and Tanzania.

**Source.** Flora zambesiaca 8(3): 143 (1963); Brummitt (1973).

**Malawi.** Nyika Plateau, 1896, Whyte s.n. (K, holo.); Nchenacha Spur, 1946, Brass 17364 (K, SRGH); Nyika National Park, W. foot of Nganda, 1972, Brummitt & Syngue 55 (K, MAL, SRGH, LISC, EA, PRE).

**Zambia.** Nyika Plateau, below Rest House on N. Rukuru Road, 1958, Robson & Angus 409 (BM, K, LISC, PRE, SRGH).

**GESNERIACEAE**

**Streptocarpus solenanthus** Mansf. ●

Herb with a single leaf; leaves ovate to oblong, 70–150 x 40–120 mm, hairy; flowers several, white to pale violet with darker marks in the throat, petiole 150–700 mm long; flowers small, pinkish, in slender spikes; in cool montane grassland and scrub; 1,350–2,200 m. Zambia and Malawi to D.R.C., Kenya, and Tanzania.


**Malawi.** Nyika Plateau escarpment, Manchewe Falls, 1977, Grosvenor & Renz 1252 (SRGH).

**HETEROPYXIDACEAE**

**Gunnera perpensa** L. ❖

Rhizomatous herb to 1 m tall; leaves large, tufted from the end of the rhizome, round to reniform, base cordate, margins toothed, minutely hairy, petiole 150–700 mm long; flowers small, pinkish, in slender spikes; in cool moist habitats along stream banks and marshes in upland areas above 1,500 m. South Africa to D.R.C. and Ethiopia. The collection below is the first record of this taxon from Malawi.

**Malawi.** Nyika National Park, Wovwe River, 2000, Willis 154 (MAL, PRE, UZL).

**Laurembergia tetrandra** (Schott) Kanitz subsp. *brachypoda* (Welw. ex Hiern) A.Raynal var. *brachypoda* ❖

Perennial herb, stems slender, characteristically reddish, trailing or more or less erect; leaves small, linear-elliptic, opposite or alternate; on grassy edges of swamps, marshes, moist grassland, stream-sides; 0–2,200 m. Widespread in Africa.

**Source.** Flora zambesiaca 4: 75 (1978).

**Zambia.** Nyika Plateau, near N. Rukuru Waterfall, 1958, Robson 403 (K).

**Heteropyxis dehniae** Suesseng. ❖

Deciduous tree 8–20 m tall, bark smoothish, silvery grey, mottled; leaves alternate, lanceolate to elliptic, finely hairy when young, glabrous and glossy with age, margins entire, venation prominent, leaves aromatic when crushed; flowers in loose terminal or axillary panicles, small; in mixed or miombo woodlands, in riverine forest and on rocky hillsides, often at higher altitudes. South Africa, Mozambique, Angola, Zimbabwe, and Malawi.

**Source.** Flora zambesiaca 4: 213 (1978).


**HIPPOCRATEACEAE**

**Simirestis goetzei** (Loes.) N.Hallé ex R.Wilczek ❖

**Hippocratea goetzei** Loes.

Liane to 25 m high, stems 4-angled when young, green turning red-brown; leaves opposite, ovate to oblong or elliptic, glabrous, margin subentire to crenulate; flowers in axillary clusters, petals yellow-green, long (4.5–6 mm); fruit of 2 (or 3) flattened green elliptic wings; in evergreen forest, 1,300–2,200 m. Malawi to Ethiopia.


Heteropyxis dehniae
Del. Sandie Burrows

Simirestis goetzii
Del. Sandie Burrows

Achyrospermum cryptanthum
Del. Sandie Burrows

Apodytes dimidiata subsp. dimidiata
Del. Sandie Burrows
Acrotome tenuis
Del. Sandie Burrows

Aeollanthus buchnerianus
Del. Sandie Burrows

Aeollanthus subacaulis
var. subacaulis
Del. Sandie Burrows

Clerodendrum johnstonii
subsp. johnstonii
Del. Sandie Burrows

20 mm
Excluded species

Reissantia buchananii (Loes.) N.Hallé

Hippocrates buchananii Loes.

This is a low-altitude species of dry scrub and woodland, often in mopane woodland, and is not recorded from above 1,050 m. It is therefore unlikely that this species occurs on the Nyika.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

ICACINACEAE

Apodytes dimidiata E.Mey. ex Arn. subsp. dimidiata

Chiciceae: katole, lifefe, michima, musumumba; Tsimbuka: mutututu, mazaa, zuzuma

Evergreen tree to 15 m tall, young branches purplish green; leaves alternate, ovate-elliptic to broadly elliptic, glossy green above, apex notched or rounded, midrib with an elastic thread when gently pulled apart; flowers white, small, in large lax clusters; fruit small, black, glossy, with a red fleshy aril; in evergreen forest, riverine forest, and high-rainfall woodlands. South Africa to Angola and Kenya.


Malawi. Nyika National Park, Jalawe Viewpoint, 2000, Chapama 208 (MAL); without locality or collecting details (Mill 1979).

LAMIACEAE

Achyrospermum cryptanthum Baker

Achyrospermum nyanzianum Baker; Achyrospermum swanae Perkins; Achyrospermum aesthiepticum auctt. non Welw.

Shrub 2–3.5 m or rarely a scrambler up to 11 m high; inflorescence terminal, corolla and calyx pink; in Afromontane forests and margins, 1,800–2,400 m. Also in Tanzania, N. Mozambique, and N.E. Zambia. Four species are known from Malawi (Chikuni 1999).

Source. Brummitt (1973); Chikuni (1999); White et al. (2001).

Malawi. Nyika National Park, Kwozwa, forest E. of summit, 1972, Brummitt & Syngue 213 (K, MAL); Zungwara road, 2000, Burrows & Burrows 6885 (MAL, UZL, PRE); Jalawe Viewpoint, 2000, Thera 3076 (MAL); Domwe, Mwanyambo 564 (MAL).

Zambia. Nyika National Park, Chowo forest, White 2536 (K).

Aeollanthus tenuis G.Taylor

Annual herb usually 200–300 mm tall, with widely spaced linear leaves, flowers white, borne in crowded verticils as in Leucas R.Br., but upper lip of corolla not hairy. Also known from the Iringa region in S. Tanzania.


Aeollanthus buchnerianus Briq.

Aeollanthus njausae Gürke; Aeollanthus canescens Gürke; Aeollanthus nyikensis Baker

Semi-succulent perennial herb to 500 mm tall, stems and bracts much smaller, alternate, linear; bracts and stems often purple; corolla white; in grassland, often in shallow rocky soils. Cameroon, D.R.C., Burundi, and Malawi.

Malawi. Nyika National Park, Chelinda Bridge, 2,280 m, la Croix 4401 (MO, PRE); 2000, Mwanyambo 529 (MAL).

Aeollanthus subacaulis (Baker) Hua & Briq. var. linearis (Burkili) Ryding

Herbaceous perennial with a rosette of basal leaves up to 50 mm long and decumbent flowering stems radiating from a subwoody tuber; calyine leaves much smaller, alternate, linear; bracts and stems often purple; corolla white; in grassland, often in shallow rocky soils. Cameroon, D.R.C., Burundi, and Malawi.


Aeollanthus subacaulis (Baker) Hua & Briq. var. subacaulis (Burkili) Ryding

Aeollanthus salicifolius Baker; Aeollanthus rubescens Gürke; Icomum salicifolium (Baker) Burkili

Semi-succulent perennial with a rosette of basal leaves up to 100 mm long and decumbent flowering stems radiating from a subwoody tuber; calyine leaves much smaller, alternate, narrowly elliptic; corolla white; grassland, often in shallow rocky soils. D.R.C. (E. Shaba), Zambia, S. Tanzania, N. Malawi, Mozambique, and E. Zimbabwe.


Clerodendrum johnstonii Oliv. subsp. johnstonii

Large canopy liane climbing by means of curved persistent petiole bases; leaves ovate to broadly ovoid or roundish, apex shallowly acuminate, hairy beneath; flowers sweetly scented, white, 5-petalled, symmetrical, tube 9–10 mm long; fruit roundish, 4-lobed, 9–10 mm diameter, seated in a cup-like calyx; and on margins of montane forest; 1,600–2,200 m. N. Malawi, N.E. Zambia, D.R.C. and E. Africa.


Malawi. Nyika National Park, Mbuizinani, 2000, Salubeni & Mwanyambo 6825 (MAL); without locality or collecting details (Mill 1979).


Clerodendrum kirkii Baker

Shrub to 1.5 m, branches hairy; leaves whorled, shortly petiolate, oblong,
LAMIACEAE

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1999).

Leonotis leonurus

Leonotis decadonta

Source.

Baker (1900: 299).

Malawi. Nyika National Park, without locality or collecting details (Pate1999).

Clerodendrum pleiosciadium Gürke

Clerodendrum syringifolium Baker

Erect shrub 0.3–2 m tall, stems angular, bearing spine-like persistent leaf petiole bases; leaves in whorls of 3 or 4, ovate to oblong, base truncate to rounded; flowers white, sweet-scented, trumpet-shaped, ca. 12 mm long; in forest, woodland, cultivation, and regeneration (F.T.E.A. 1992); 200–1,200 m. N.E. South Africa, Mozambique, Zimbabwe, Malawi, and Tanzania. This is a dubious record; if it is genuine, then it is certainly from the lowest point in the National Park and not strictly part of the plateau flora.


Malawi. Nyika National Park, without locality or collecting details (Pate1999).

Haumaniastrium lantanaoides (S.Moore) P.A.Duvign. & Plancke

Acrocephalus lantanaoides S.Moore

Suffrutex with one or several stems arising from a woody rootstock; stems hairy and glandular; leaves petiolate, elliptic to obovate, 1.5–50 x 4–20 mm, margin revolute or thickened; heads globose with prominent bracts, 5–15 mm in diameter, fruiting calyx 3.5–4.5 mm long, posterior lip of mature calyx obtuse, more or less equaling the emarginate anterior lip; in miombo or Uapaca woodland, often on stony or sandy ground on hillsides, rarely reported from dambo margins or riversides; 1,200–1,800 m. From N. Malawi to Angola, along the D.R.C.–Zambia watershed.


Malawi. Nyika Plateau, 1903, McClounie 46 (K).

Haumaniastrium villosum (Benth.) A.J.Paton

Acrocephalus callianthus Brev.; Acrocephalus ogiegeois Baker

Annual or short-lived perennial herb 0.1–1.6 m tall, similar to Platostoma in the whitish bracts subtending the inflorescence; hairs on stem mainly directed outward; petioles up to 10 mm long, if blade elliptic or ovate, 10–120 x 5–50 mm, margin weakly revolute or flat, upper leaves dark blue; posterior lip of mature calyx acute or obtuse, entire (usually hooded), exceeding the rounded to truncate anterior lip, corolla lilac; usually in moist areas in grassland and open woodland, also disturbed sites; 0–2,100 m. Widespread in tropical Africa and Madagascar.


Isodon ramosissimus (Hook.f.) Codd

Rabdosia ramosissima (Hook.f.) G.Murata; Plectranthus ramosissimus Hook.f.; Plectranthus boshindioides Baker; Homalocheilos ramosissimus (Hook.f.) J.K.Morton

Perennial herb 0.7–1.7 m high, similar to Plectranthus, but with lower corolla lip much larger than the upper and almost flat; leaves ovate, broadly stalked, much paler beneath, shallowly round-toothed, ca. 35 x 20 mm; inflorescence an axillary panicule of dichotomous cymes, sepal tube curved with all sepals equal and triangular; flowers 10 mm long; corolla white with purple or maroon marks, tube straight, stamens long-exserted; locally common in grassland; 1,600–1,750 m. Mountains of tropical Africa.


Leonotis myricifolia

Low-growing erect herb resembling a miniature Leonotis with slender, finely pilose or villous branches; leaves shortly petiolate, ovate or oblong-lanceolate, 25–50 mm long, deeply crenate or dentate, green and thinly hairy above, densely so beneath, apex acute, base usually cuneate; inflorescence in 1–2 whorls, remote, many flowered, bracts minute to large, linear, densely hairy, calyx finely pubescent, 8–12 mm long, throat oblique, lower side produced, tube funnel-shaped; teeth small, deltoid-cuspidate; upper lip of white corolla small, densely villous. Widespread in tropical Africa. The inclusion here of Winter 4106 is tentative.


Malawi. Nyika National Park, N. of Thazima, ca. 1,900 m, la Croix 4599 (MO, PRE).

Leucas deflexa Hook.f. var. kondowensis (Baker) Sebald

Low-growing erect herb resembling a miniature Leucas with slender, finely pilose or villous branches; leaves shortly petiolate, ovate or oblong-lanceolate, 25–50 mm long, deeply crenate or dentate, green and thinly hairy above, densely so beneath, apex acute, base usually cuneate; inflorescence in 1–2 whorls, remote, many flowered, bracts minute to large, linear, densely hairy, calyx finely pubescent, 8–12 mm long, throat oblique, lower side produced, tube funnel-shaped; teeth small, deltoid-cuspidate; upper lip of white corolla small, densely villous. Widespread in tropical Africa. The inclusion here of Winter 4106 is tentative.


Malawi. Nyika National Park, 8 km E. of Nganda, 1972, Brummitt, Munthali & Synge 139 (K, MAL); Domwe road, 2000, Winter 4106 (MAL, K, PRE).

Leucas megasphaera Baker

Perennial herb with slender, square, pubescent stems; leaves shortly petiolated, oblong-lanceolate, 25–75 mm long, shallowly crenate, densely hairy on both surfaces; whorls 1–2, many-flowered, subtended by large leaves, bracts large, linear, densely hairy, calyx densely hairy, upper teeth linear, lower small, ovate, acuminate, corolla tube as long as the calyx, upper lip 8 mm long, densely clothed with white hairs. Distribution outside Nyika unknown.


Malawi. Nyika Plateau, 6,000–7,000’., 1896, Whyte s.n. (K?).

Ocinum decumbens Gürke

Becium capitatum Agnew

Aromatic perennial herb with several erect or decumbent stems from a thick, woody rootstock, rarely a shrub, 1.5–5.0 m tall, hairy and glandular; leaves opposite or whorled, usually deflexed, petioles 0.5–5 mm long, blades often folded along midrib, 5–22 x 3–14 mm, entire or serrate; inflorescence with verticils touching in flower, but up to 25 mm apart in fruit, fruiting calyx 6–9 mm long; in grassland; 1,300–3,100 m. Angola, D.R.C., Zambia, Uganda, Kenya, Tanzania, and Malawi.
**Haumaniastrium villosum**
Del. Sandie Burrows

**Isodon ramosissimus**
Del. Sandie Burrows

**Leonotis myricifolia**
Del. Sandie Burrows

**Leucas deflexa var. kondowensis**
Del. Sandie Burrows

**Ocimum decumbens**
Del. Sandie Burrows
Platostoma rotundifolium
Del. Sandie Burrows

Plectranthus acaulis
Del. Sandie Burrows

Plectranthus shirensis
Del. Sandie Burrows

Pycnostachys ruandensis
Del. Sandie Burrows
**Ocimum gratissimum** L. subsp. gratissimum var. gratissimum

*Ocimum suave Willd.; Ocimum articulatum Roth; Ocimum trichodon Gürke*

Aromatic perennial herb 0.6-2.5 m high, stems erect; leaves 35-150 x 85 mm, petiole more than 5 mm long, margin serrate; inflorescence of dense, terminal spikes, calyx throat closed in fruit, as the lower lip presses against upper lip; in submontane forest or moist savanna; 0-1,500 m. Widespread in the tropics.


**Malawi.** Nyika National Park, Domwe road, 2000, Winter 4082 (MAL, UZL); Domwe, 2000, Mwanyambo 567 (MAL).

**Ocimum obovatum** E.Mey. ex Benth. subsp. obovatum var. obovatum

*Ocimum odontopetalum C.H.Wright; Becium grandiflorum var. obovatum (E.Mey. ex Benth.) Sebald pro parte*

Suftretux with erect or rarely decumbent annual stems from a woody rootstock, or shrub up to 1.5 m tall; leaves opposite or whorled, green, purple or grey, glabrous to densely hairy, 15-150 x 2-40 mm, mostly 3 or more times longer than wide, apex acute to rounded, base cuneate or attenuate; upper lip of calyx obovate, exceeding the calyx tube by 1.5 mm or less, apex rounded, sometimes mucronate; in wooded grassland or open *Acacia* or miombo woodland; 100-2,100 m. Widespread in tropical and South Africa and Madagascar.


**Malawi.** Nyika National Park, Nyika Plateau, without locality, 1903, McClunnie 30 (K); near Chosi Beacon, Keto 5 (PRE).

**Zambia.** Nyika Plateau, Chowo Rock area, 1975, Pawek 10308 (UC, K, MO, SRGH, MAL, PRE).

**Ocimum obovatum** E.Mey. ex Benth. subsp. obovatum var. galpinii (Gürke) N.E.Br.

*Ocimum kappsiroides De Wild.*

As for var. obovatum, but with the leaves 15-65 x 15-35 mm, mostly less than 3 times longer than wide, in Afromontane or mist belt grassland, or open *Protea, Uapaca* or miombo woodland; 1,500-2,450 m. Tropical and South Africa.


**Malawi.** Nyika National Park, Nyika Plateau, Pawek 10267 (K).

**Zambia.** Nyika Plateau, Fanshawe 7347 (K, NDO).

**Ocimum obovatum** E.Mey. ex Benth. subsp. crystallinum (A.J.Paton) A.J.Paton

*Becium obovatum subsp. crystallinum A.J. Paton*

As for var. obovatum, but with leaves opposite (not whorled), ascending or spreading, base cuneate; upper lip of the calyx obovate, exceeding the calyx tube by 1.5 mm or less, apex rounded, sometimes mucronate; in grassland and miombo woodland, 1,980-2,300 m. Known only from Nyika Plateau and the Livingstone Range in Tanzania.

Source. Paton (1995); Brummitt (1973)

**Malawi.** Nyika National Park, Nyika Plateau, Syinge WC451 (K); Escarpment below Jalawe Viewpoint, 1992, Goyder & Paton 3570 (K, MAL).

**Zambia.** Below Chowo Rock, 1,830 m, Chapman 736 (PRE, SRGH).

**Platostoma rotundifolium** (Briq.) A.J.Paton

*Genosporum rotundifolium Briq.; Genosporum angolense Briq.; Genosporum paludosum Baker; Ocimum komianense A.Chev.*

Erect herb from a woody rootstock, to 1 m tall; leaves ovate, apex acute or rounded; inflorescence purple, subtended by white bracts with green tips, flowers blue, calyx with 4 teeth; fruiting calyx round in cross section, anterior and posterior lobes not splitting apart, throat closed by median lobe of anterior lip; anterior lip 3-lobed with one median lobe, posterior lip acute, not decurrent; nutlets apically rounded; in wetlands or moist grassland. Widespread in Africa.


**Malawi.** Nyika National Park, S. slopes of Kwozwa, 1972, Brummitt & Syinge 171 (K, MAL); Dembo Bridge, 2000, Winter 4038 (MAL); Luselo River, 2000, Salubeni & Mwanyambo 6804 (MAL).

**Zambia.** Below Chowo Rock, 1,830 m, Chapman 736 (PRE, SRGH).

**Platostoma strictum** (Hiern) A.J.Paton

*Genosporum strictum Hiern; Genosporum baumii Gürke*

Leaves narrowly obovate; inflorescence subtended by white bracts with green tips, fruiting calyx round in cross section, anterior and posterior lobes not splitting apart, throat closed by median lobe of anterior lip, anterior lip 3-lobed with one median lobe, posterior lip acute, not decurrent; nutlets apiocally rounded; in wetlands or moist grassland. Angola, Zambia, Malawi, and Zimbabwe.


**Malawi.** Nyika National Park, Dembo River, 2000, Winter 4031 (MAL, UZL); 2000, Willis 16 (MAL, PRE).

**Plectranthus acaulis** Brummitt & Seyani

Suftretux with woody rootstock and solitary rosette of 4-6 large leaves flat on the ground in the form of a cross, stem 0-20 mm long, with a soli
tary inflorescence arising from the centre; inflorescence with (1)2-3(4) pairs of branches, corolla violet to purple; grassland and forest margin; 2,190-2,250 m. Known only from a few square kilometres on the Malawi-Zam
bia border on the western side of the Nyika Plateau, and Mr. Waller to the E. of the Nyika Plateau.


**Zambia.** Nyika Plateau, road to Rest House, 2,100 m, 1959, Richards 10392 (K).

**Plectranthus alboviolaceus** Gürke

Woody shrub 2-3 m high; foetid; leaves ovate, nettle-like, base attenuate; racemes shortly branched, flowers pale purple or white, with mauve marks on lip, sepal to 6 mm long in fruit, both lips of corolla under 3 mm long; in Afromontane forest understorey, margins, and forest openings, 1,700-2,180 m. Kenya, Tanzania, N.E. Zambia, Malawi, and Mozambique (Mr. Namuli).


**Malawi.** Nyika National Park, E. Nyika, 2,400 m, 1946, Brass 17317 (PRE); Zovochipolo, 2,225 m, la Croix 4627 (MO, PRE).

**Plectranthus alpinus** (Vatke) O.Rydling

*Coleus alpinus Vatke; Coleus assurgens Baker; Plectranthus assurgens* (Baker) J.K.Morton

Similar to *P. sylvestris*, but with frequently trailing stems, and bright red sessile glands on leaves and flowers; leaves broad-ovate, almost circular or square, sometimes coarsely toothed; racemes unbranched, sepals curved, enlarging to 4 mm in fruit, upper tooth no longer than, but twice as wide as others, corolla with upper lip about as long as the lower; lower lip 6-10 mm long; in forest understorey. Ethiopia to Malawi.

**Malawi.** Nyika National Park, Juniper Forest, 2,135 m, Brummitt 10888 (K, PRE).

**Plectranthus baumii** Gürke

*Holostylos baumii* (Gürke) G.Taylor

Shrub with many branching and arching stems, woody at base, up to 2-3 m high, from common stock; inflorescence a lax panicle to 500 mm long,

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corolla blue; *Brachystegia* or *Uapaca* woodland, flowering at start of dry season, with last leaves or after leaves have dropped. Angola, Botswana, Zambia, Zimbabwe, D.R.C., and Malawi.

**Malawi.** Nyika National Park, 5 slopes of Kawoza, 1972, 1,675 m, *Brummitt & Syngue 223* (K, MAL, PRE, SRGH, LISC; Savi Valley, 1972, 1,465 m, *Syngue 406* (K, MAL, EA, PRE).

**Plectranthus buchananii** Baker

*Coleses* *secoptas* C.H.Wright; *Coleses buchananii* (Brennan) *Coleses hocki* De Wild.

Perennial; leaves oblong, deeply crenate, gradually reduced to a sessile base or a distinct petiole, membranous, shortly hairy on both sides, lower leaves 150–180 mm long, 76 mm wide at the middle; inflorescence racemose, lax, 300 mm or more long, flowers 15–20 in a whorl, pedicels pubescent, finally 6–8 mm long; fruit calyx 6 mm long, upper tooth large, ovate, 4 lower teeth large cusps, corolla 8–13 mm long, D.R.C. to Malawi. Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

**Plectranthus daviesii** (E.A.Bruce) B.Mathew

*Coleses daviesii* E.A.Bruce

Scrambling shrub to 3 m tall, stem and leaves glabrous; flowers white; in evergreen forest margins and clearings. Known elsewhere only from S. Tanzania.

**Source.** *Brummitt (1973).*


**Plectranthus esculentus** N.E.Br.

*Plectranthus densus* N.E.Br.; *Plectranthus primulus* Baker; *Plectranthus floribundus* N.E.Br. *non* Baker

Perennial, 1 m tall; inflorescence on leafless flowering stems, in short, very dense oblong racemose panicles 40–55 mm long, cymes sessile, pedicels very short, flowers yellow. Widespread in tropical Africa. Nyika collections seem to represent *P. primulus* or *P. densus*, with relatively dense, short inflorescences, together with specimens from N.W. Zambia to S. Tanzania. Recognition at varietal rank may be more useful for these populations, since the typical form of *P. esculentus* is expected at lower altitudes only. Similar to *P. kapatensis*.

**Source.** *Brummitt (1973); PRE.*

Malawi. Nyika National Park, N.W. foot of Nganda, 1972, *Brummitt & Syngue 46* (K, MAL); near dam #3, 2,300 m, *la Croix 4147* (MO, PRE); Chelinda Mountain, *Kettle 1* (PRE); 2 miles S.W. of Rest House, 2,150 m, 1958, *Robson 190* (K, PRE).

**Plectranthus goetzi** Gürke

*Plectranthus salubrenii* Brummitt & Seyani

Slender perennial herb 450–600 mm tall with a single roundish tuber just below ground level, stem solitary or paired, arising from its crown; leaves (10)30–60(100) mm x (2)3–15(23) mm, entire or minutely serrate towards the apex; inflorescence with gland-tipped hairs, simple or with a single pair of small basal branches, corolla white to pale blue; in grassland and *Brachystegia* woodland; 1,000–3,000 m. Central and N. Malawi, S. Tanzania, and Zambia.

**Source.** *Brummitt & Seyani (1987).*


**Plectranthus gracilis** Suesseng.

*Plectranthus seyana* A.J. Paton & Brummitt

Annual herb similar to *P. stenosphion* and *P. modestus*, but with longer pedicels. Zimbabwe to Malawi and adjacent countries.

**Source.** *Paton & Brummitt (1991).*

Malawi. Nyika Plateau, 1,800 m, 1896, *Whyte s.n.* (K).

**Plectranthus herbaceus** Briq.

*Coleses herbaceus* (Briq.) G.Taylor

Erect annual, 0.3–0.9 m tall, stems branched, fragile, glabrous; leaves shortly petiolate, ovate, membranous, margin crenate, base attenuate; cymes long, forked, scorpioid, pedicels very short, fruit calyx glabrous, 6.5 mm long, tube campanulate, upper lip orbicular, corolla twice as long as the calyx; in shade, in miombo woodland. Angola to E. Africa.


**Plectranthus kapatensis** (R.E.Fr.) J.K.Morton

*Coleses kapatensis* R.E.Fr.

Very similar to *P. esculentus*, but with mauve flowers.

**Malawi.** Nyika National Park, between Chisanga Falls and Kaperekezi Gate, 2000, *Salabeni & Mvanyanamo 6830* (MAL).

**Plectranthus katangensis** DeWild.

*Holostylon katangense* (DeWild.) Robyns & Lebrun; *Plectranthus hockii* DeWild.

Pyrophytic herbaceous perennial to 500 mm tall, with woody rootstock; flowering at the end of the dry season; inflorescence to 250 mm long, arising directly from base of old leafless stem below soil surface, leaves following later (on different stems); flowers sky blue, paler at base; in wooded grassland. Angola, S.E. D.R.C., N. Zambia, S. Tanzania, and Malawi (Nyika Plateau).

**Malawi.** Nyika National Park, N.W. foot of Nganda, 1972, *Syngue 375* (K, MAL, SRGH, LISC); Main Road, 2,000 m, *la Croix 4043* (MO, PRE); Main Road to ca 2 miles S.W. of Rest House, 2,150 m, 1958, *Robson 188* (PRE).

**Plectranthus laxiflorus** Bentham.

*Germainea laxiflora* (Benth.) Hiern; *Coleses laxiflorus* (Benth.) Roberty pro parte

Weak shrub or scrambling herb up to 4 m; leaves almost hairless, long stalked, coarsely toothed, to 70 mm long, base cordate to abruptly cuneate; inflorescence large, terminal, more or less leafless, flowers in 3s, shortly pedunculate, with small non-leafy bracts subtending the peduncles, sepals 6–7 mm long, upper lobe rounded, corolla white with blue veins, to 8 mm long; in montane forest. E. Africa to South Africa. An apparent geographical variant of *P. laxiflorus* occurs here [N.E. foot of Nganda, *Brummitt & Syngue 119* (K, MAL)] and in S. Tanzania in which the flowers are produced sparingly (often solitary) in the axis of normal leaves rather than in large terminal more or less leafless inflorescences with small non-leafy bracts subtending the peduncles (*Brummitt 1973, 1976*).

**Source.** *Brummitt (1973, 1976).*


**Plectranthus malawiensis** B.Mathew

*Coleses nyakensis* Baker

Semi-succulent much-branched erect shrublet to 350 mm tall, stems woody, hairy; leaves appearing with the flowers, shortly petiolate, thick, more or less fleshy (succulent), 5-nerved from the base, red, hairy mainly on the veins beneath, ovate, to 20 x 10 mm, entire, apex obtuse, base not cordate; cymes many-flowered, distinctly pedunculate, arranged in a dense, oblong, racemose inflorescence 25–38 mm long, pedicels short, pubescent; fruit calyx pubescent, 3 mm long, tube campanulate, teeth small, upper tooth ovate, lower teeth as long, narrowly ovate, flowers royal blue, corolla hairy, 8.5 mm long, lower lip as long as tube; in rocky areas. Known only from the Nyika Plateau and the Mafinga Mountains of Zambia.

**Source.** *Mill (1979); Brummitt (1973 & 1976).*


**Plectranthus masukensis** Baker

Annual or ‘perennial’ (*P. brevipes*) erect herb, similar to *P. sylestris*, but with smaller flowers; leaves ovate-triangular, glabrescent to pubescent (*P. brevipes*); flowers 1–3 per whorl, white or mauve on an axis with long hairs, sepals to 4 mm long, longer than fruit stalk, lower lip of corolla 2–
Plectranthus modestus Baker
Englerastrum modestum (Baker) T.C.E.Fr.; Coleus modestus (Baker)
Robyns & Lebrun (Perennial?) herb with small globose tubers; leaves narrowly oblong or obovate, greyish; verticils invariably one-flowered, pedicels shorter than in P. gracilis, flowers blue; in grassland. Similar to P. stenocephalum. Distribution not established.
Malawi. Nyika National Park, ca 1 km W. of Chelinda Bridge, ca 2,400 m, 1992, Goyder, Paton & Tawakali 3545 (PRE).

Plectranthus nyikensis Baker
A much-branched undershrub, with woody hairy stems; leaves shortly petiolate, firm, green and hairy on both surfaces, broadly ovate or suborbicular, 9–25 mm long, apex obtuse, base broadly rounded; cymes few-flowered, umbellate, arranged in longish lax raceme pancreis, bracts small, ovate, leafy, pedicels densely hairy; 4 mm long, calyx densely hairy, 4 mm long, tube campanulate, teeth small, deltoid, subequal, corolla 13 mm long; stamens included. Malawi.
Source. Baker (1900).
Malawi. Nyika Plateau, 6,000–7,000’ 1896, Whyte 162 (K?).

Plectranthus pubescens Baker
Erect perennials, with branched stems, densely hairy stems and with red sessile glands; leaves distinctly petioled, broadly ovate, 25–40 mm long, acute, base shallowly cordate, deeply crenate, membranous, green and densely hairy on both surfaces; inflorescence in lax whorls, arranged in a long raceme panicle, bracts minute, pedicels pubescent, 3 mm long, fruit calyx pubescent, 4–8 mm long, teeth small, subequal, deltoid or lanceolate-deltoid, corolla 13 mm long, white or pale mauve; stamens included; in woodland grassland. Malawi and tropical E. Africa.
Source. Baker (1900).
Malawi. Nyika Plateau, 7,000’, 1896, Whyte s.n. (K?).

Plectranthus schizophyllus Baker
Calchas schizophyllus (Baker) P.V.Heath
Erect herb to 500 mm with occasional small easily detachable tubers; leaves divided into linear segments 1–3 mm wide, mostly hairy below with revo- lute margins; corolla white, lips bluish purple, filaments bluish, anthers dark purple; in montane grassland. S. Tanzania to Nyika.
Malawi. Nyika National Park, end of road by Dembo River, 2,225 m, 1972, Brummitt 10674 (K, PRE); road junction S.E. of Zambian Rest House, 2,000, Winter 4189 (MAL, PRE, UZL); road junction S.E. of Zambian Rest House, 2,000, Chapama 139 (K, PRE); Chelinda Bridge, 2,280 m, la Croix 4347 (MO, PRE).
Zambia. Nyika Plateau, Chowo Rocks, 2,210 m, Brummitt 10863 (K, PRE).

Plectranthus sp. nov., aff. P. schizophyllus Baker
Erect herb with small tubers; leaves rhombic, with upper margins deeply toothed; flowering purple, corolla white with pale blue lower lip, darker at tips of lips [flowers lilac on the Viphya plateau, la Croix 3711 (PRE)]; in montane grassland. Apparently restricted to N. Malawi.
Malawi. Nyika National Park, Chosi Hill, 2000, Winter 3991 (MAL, UZL); Chelinda Camp, chalet no.3, edge of Pinus plantation, 2,285 m, Brummitt 10903 (PRE); Chelinda Bridge, 2,280 m, la Croix 4347 (MO, PRE).

Plectranthus shrinesis (Gürke) A.J.Paton comb. nov. ♀
Coleus shrinesis Gürke in Engl. Jahrb. 19:216 (1894). Lecto. (Mathew, in Brummitt 1976:); Malawi (southern region), without locality, Buchanan 376 of 1891 collection (K);
Solenostemon shrinesis (Gürke) Codd; Solenostemon shrinesis (Gürke) Mathew nom illeg.; Calchas shrinesis (Gürke) P.V.Heath; Coleus punctatus Baker; Solenostemon zambesiaceus Baker
Subshrub to 2(4) m tall; leaves aromatic (mint-like), ovate, pointed, long hairy below and with teeth less than 2 mm deep; racemes simple, dense, flowers blue, lilac or purple, lower lip of corolla to 8 mm long, fruiting sepal 5–6 mm long; on edges of montane rainforest, and inside riparian forest and swamp forest; 1,680–3,000 m. Kenya to Zimbabwe.

Plectranthus stenosiphon Baker
(Perennial?) herb with decumbent stems; calyx more or less equally toothed, as in P. modestus and P. gracilis; flowers white with blue markings, pedicels shorter than in P. gracilis; in grassland. Malawi.
Source. Mill (1979); PRE.
Malawi. Nyika National Park, 1,250 m, Phillips 1809 (MO, PRE).

Plectranthus sylvestris Gürke
Soft-stemmed sparsely branched shrub 2–3 m tall, with yellow sessile glands on leaves and flowers; leaves glabrous to obscurely hairy on the ribs below, ovate, petiolate, often straight-edged at the base, apex attenuate; inflorescence usually branched; flowers similar in shape to Solenostemon spp., usually on long stalks in many-flowered whorls, large, sky-blue, upper lip with white spots, about as long as lower lip; sepals enlarging to 8 mm in fruit, upper tooth as long as the others; forest openings, 1,600–2,200 m. Ethiopia, Rwanda (D.R.C. border), E. Africa, N.E. Zambia, and Malawi (Nyika National Park). Similar to P. alpinus.
Malawi. Nyika National Park, Juniper Forest Reserve (Dowsett-Lemaire 1985: 348); Zambian border, without precise locality, Dowsett-Lemaire 114 (K?).

Plectranthus thyroideus (Baker) B.Mathew
Coleus thyroideus Baker
Erect, strongly aromatic and sticky shrub with woody branches, 0.6–1.1 m tall; leaves deflexed and folded up along the midrib, margin coarsely toothed, lower leaves to 175 x 100 mm, with prominent hairy nerves below; base shortly attenuate, upper leaves smaller, shorter-petiolate; inflorescence pedunculate, dense-flowered cymes of shortly-pedicelled flowers, bracts leafy, decreasing in size and incision toward the top, calyx very small, tube roundish, hairy, upper lobe obovate-spathulate, about as long as tube, hairy, side lobes about half as long as upper, narrowly oblong-spathulate, lower about as long as sides, ovate-falcate, corolla 12.5 mm long, bright blue, tube S-shaped, throat laterally compressed; in rocky grassland; 1,830–2,400 m. Malawi, Zambia, and Zimbabwe.
Malawi. Nyika Plateau, 6,000–7,000’, 1896, Whyte s.n. (K?); Kawozya Summit 1972, Brummitt & Synge 210 (K, MAL, SRGH, LISC).
Zambia. Nyika Plateau, Mwanda Ridge, W. of summit, 2,400 m, 2000, Willis 198 (MAL, PRE, UZL); Winter 4189 (UZL, MAL).

Plectranthus viphynensis Brummitt & Seyani
Perennial herb, apparently with woody rhizomes and vertical fusiform tubers, stem (without inflorescence) 150–550 mm long; leaves 40–140 x 40–170 mm, broadly heart-shaped to more or less reniform, petiole 10–30 mm long, base cordate, margin conspicuously crenate to bicrenate; inflorescence with 1–3 pairs of ascending branches, corolla violet to purple; in montane forest and swamp forest; 1,680–3,000 m. Kenya to Zimbabwe.
Malawi. Nyika Plateau: road from Nyika Rest House, lower part of plateau, 1,800 m, 1959, Richards 10537 (K).

Plectranthus zebrarum Brummitt & Seyani
Sulfrutex, with woody rootstock, stems several, 70–260 mm long (without inflorescence); leaves 40–120 x 20–80 mm, ovate to elliptic, sessile or with a petiole up to 1 mm long, base subcuneate or rounded to subcordate, margin conspicuously crenate to bicrenate to almost serrate to biserate; inflorescence with (0)1–2 pairs of ascending branches, corolla violet to...
**Rotheca quadrangulata**
Del. Sandie Burrows

**Scutellaria schweinfurthii**
subsp. *pauciflora*
Del. Sandie Burrows

**Satureja masukuensis**
Del. Sandie Burrows

**Salvia nilotica**
Del. Sandie Burrows

**Stachys aculeolata** var. *inermis*
Del. Sandie Burrows
purple; in montane grassland; 2,100–2,480 m. Endemic to the Nyika Plateau; widespread and probably common in most of the Nyika grasslands; flowering November to May.


Malawi. Nyika Mountains, Sanderson 7 (BM).

Zambia. Nyika Plateau, without precise locality, 2,100 m, 1959, Richards 10419 (K); Phillips 148A (PRE, SRGH, MO); Chos Hill, 2000, Winter 4000 (MAL, PRE).

Pycnostachys dewildemaniäa Robyns & Lebrun

Annual herb; leaves linear; in miombo woodland. Eastern Africa

Malawi. Nyika National Park, without locality or collecting details (PateJ 1999).

Pycnostachys ruandensis DeWild. ▶

Pycnostachys clinodón Mildbr.

Annual herb up to 1.2 m tall, but usually smaller; leaves obovate to rhombic, base attenuate, margin toothed in upper half; corolla light blue; often growing in thin soil overlying rock. Eastern Africa


Malawi. Nyika National Park, rock outcrop at Chelinda Bridge, 2000, Winter 4066 (MAL, PRE), 2000, Mwanyambo 533 (MAL); Dembo road, 2,300 m, 1975, Pavek 9299 (MO, PRE).

Zambia. Nyika Plateau, Chowo Rocks, 2,210 m, Brummitt 10865 (K, PRE).

Pycnostachys schleihenii Mildbr. ●

Subshrub up to 2 m tall, smooth; spike up to 50 mm long, corolla blue; on forest margins. Known only from the Nyika Plateau and Tanzania.


Malawi. Nyika National Park, forest 3 km E. of Nganda, 1972, Brummitt & Synge 93 (K, MAL, SRGH); 5 km N.E. of Nganda, 1972, Synge 286 (K).

Zambia. Nyika Plateau, Chowo Forest, 1,830 m, Phillips 3389 (PRE).

Pycnostachys stuhlmannii Gurke

Erect, short-hairy annual or short-lived perennial herb; leaves sessile or subsessile, narrowly to very narrowly olate-elliptic or linear, acuminate, base attenuate; spikes short, under 30 mm long in fruit, ovoid to globose, in panicules or corymbs, flowers to 12 mm long, light powder-blue to intense sky-blue, calyx hairy, teeth 3–4.5 mm long; wetlands and stream banks in panicles or corymbs, flowers to 12 mm long, light powder-blue to intense sky-blue, calyx hairy, teeth 3–4.5 mm long; wetlands and stream banks in or on edges of montane rainforest; 1,550–2,300 m. Malawi, Zambia, D.R.C., and Tanzania. Verdecourt in F.T.E.A. Verbenaceae (1992) treats Clerodendrum quadrangulatum as a synonym of C. sanharense Gurke subsp. sanharense. However, in a joint paper, Fernandes & Verdecourt (2000) list both Rotheca (Clerodendrum) quadrangulata and R. sanharenis, implying that at least Fernandes regards the two as separate and distinct species. Since she is preparing the Rotheca/Clerodendrum treatment for Flora zambesiaca, we follow her concept in this case.


Malawi. Nyika National Park, Jalawe Viewpoint, 2000, Thera 3082 (MAL); Juniper Forest, 2000, Chikuni 512 (MAL); Thazama Camp, 2000, Chapama 173 (MAL).


Salvia nilotica Juss. ex Jacq. ◀

Salvia abyssinica Jacq., non L.; Salvia pareviflora Salisb.; Salvia hochstetteri Baker

Scrambling hairy rhizomatous herb to 2 m; leaves aromatic, lower leaves pinnatifid, petiole, up to 130 x 50 mm, cauline leaves ovate, clasping at the base; flowers in open branched terminal racemes, calyx tube funnel-shaped, 10-veined, 5-toothed, upper teeth usually over 5 mm long, corolla 10 mm long, less than twice calyx length, white, pink or purplish blue; common in grassland and forest margins; 1,800–3,700 m. Ethiopia, E. Africa, Malawi (Nyika Plateau) and E. Zimbabwe. Specimens have in the past been mistakenly identified as S. runcinata L.f.


Satureja biiflora Briq.

Microseris quartina A.Rich.; Satureja punctata (Benth.) Briq.; Microseris schumperi Vatke

Erect woody herb, with 1–several erect stems from a thickstock, to 0.5(0.8) m tall, hairless to long-haired; leaves aromatic, elliptic, base tapering, apex acute to acuminate, margin entire 12(20) x 8 mm; inflorescence bracts leaf-like, flowers 2–20 in usually dense axillary clusters, 8 mm long, corolla lilac to white, calyx teeth equal in lowland forms, but lower teeth up to twice as long as upper in high altitude grassland forms; common on grassy edges of forests. Widespread in Africa.


Satureja masukuensis (Baker) Eyles ◀

Calamintha masukuensis (Baker) S.Moore; Leucas masukuensis Baker

Shrub up to 1(1.5) m tall, sparsely branched; flowers white, calyx up to 5 mm long; in tall grassland or forest margins. Distribution outside Malawi not established; type collection from Misuku Hills.


Satureja myriantha (Baker) Brenan

Leucas myriantha Baker

Shrub up to 1(1.5) m tall, sparsely branched; flowers white, calyx up to 9 mm long; in tall grassland or forest margins. Distribution outside Malawi not established.

No country given. Nyika Plateau, without locality, Dowsett-Lemaire 113 (K).

Scutellaria schweinfurthii Briq. subsp. pauciflora (Baker) Paton

Scutellaria pauciflora Baker; Scutellaria livingstonei Baker; Scutellaria debeveri Briq.

Perennial suffrutex (pyrophyte) with woody rootstock; leaves toothed, ovate, ca 27 x 10 mm on non-flowering shoots; inflorescence up to 300 mm from rootstock, leaves absent or virtually so at flowering, corolla 18 mm long, purple; locally common in short grassland, 1,400–1,950 m. Widespread in tropical Africa.


Stachys aculeolata Hook.f. var. inermis Y.B.Harv.

Perennial suffrutex with creeping rhizomes; leaves ovate, 38–55 x 10–32(48) mm, apex acute to obtuse, base cordate, petioles without glands; inflorescence elongate, unbranched, verticils (4)6-flowered, 2–90 mm apart; corolla 5–28 mm long, white, pink or purple, with purple or pink flecks on lower lip, upper lip 5–7 mm long, lower lip more or less twice as long as upper lip; in woodland and moderately shady places, or among rocks; 1,800–3,000 m. Burundi, Uganda, E. D.R.C., W. Tanzania, and N. Malawi (Nyika National Park). The Malawian specimens occur at the lower extreme of the altitudinal range.


Tetradenia riparia (Hochst.) Codd

Ibóza riparia (Hochst.) N.E.Bt.; Basilicum riparium (Hochst.) Kuntze; Moschosa multiflorum Benth.

Branched soft-wooded dioecious shrub to 3 m tall, stems knobby with leaf scars; leaves strongly aromatic, thick and leathery; inflorescence paniculate, often diffusely branched, ultimate branchlets spike-like, often appearing after the leaves are shed, female inflorescence often more compact, bracts overlapping in the bud stage, flowers white to mauve or lilac, many, minute; in bush land of drier and frost-free rocky slopes. Ethiopia to South Africa, Angola, and Namibia.


Vitex doniana Sweet

Chichewa: mpyumbuyi, msimpya; Yao: mpiimdihi

Deciduous tree 5–15 m tall, with a rounded dark green crown, bark light brown, vertically fissured and stringy; leaves 5- to 7-folate, leaflets oblong-obovate or elliptic, 40–250 mm long, hairless, more or less glaucous below, petals 50–200 mm long; flowers white to pink, lower lip purple or violet; fruit oblong-ellipsoid, 18–30 mm long, black, glabrous, set on a shallow cup; along forest margins and in transitional or moist miombo woodland. Zimbabwe northwards throughout much of tropical Africa. Only in the foothills of the Nyika Plateau. The fruits are edible and tasty.


Malawi. Nyika National Park, without locality or collecting details (Patel 1999); below Manchewe Falls (White et al. 2001).

Vitex madiensis Oliv. subsp. milanjensis (Britten) F.White

Vitex milanjensis Britten

Yao: chipindimbi, msocherakunyama

Tree or shrub to 8 m tall (var. milanjensis) or pyrophytic suffrutex (var. epulicytodes); leaves mostly 5-folate, leaflets narrowly obovate, elliptic or oblanceolate, venation closely reticulate and raised on the upper surface, hairless and shiny above, hairy below, sometimes completely hairless, margin shallowly and coarsely crenate; flowers white/pink and blue; fruit shiny, white-spotted, 14–25 mm long, woody; in miombo and associated types of woodland. Malawi to Angola and Tanzania.


Excluded species

Achyrospermum aethiopicum Welw.

Reported by Chakm (1999) from N. Tanzania, Zambia, and Angola, but not from Malawi. The true identity of these plants is probably A. cryptanthum Baker.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Aeollanthus myrianthus Baker

Aeollanthus medusa Baker; Aeollanthus gamwilliae G.Taylor; Aeollanthus xerophytiens Lebrun ex Brooks et al., nom. nudum

Known from Tanzania, but the presence of this species in Malawi could not be confirmed.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Aeollanthus serpiculoides Baker

Known from Tanzania, but the presence of this species in Malawi could not be confirmed.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Leonotis nepetifolia (L.) Aiton f.

Woody annual subshrub, unbranched at the base, to 3 m high; corolla orange or cream-coloured. This species is restricted to drier woodland habitats at lower altitudes, for example, Rumphi Gorge, 1,100 m, Pawek 4928.

Cassytha filiformis L.

Chichewa: sakasinji; Tumbuka: sangazingi; Yao: Iwandao

Parasitic herb forming masses of yellowish green twining threads (stems) in and over low vegetation; leaves scale-like, 1.5–2 mm long; flowers 3–10 in an axillary spike; fruit a round drupe, 6 x 5 mm, crowned with a persistent perianth; in a wide variety of vegetation types, from sea-level to 1,400 m.

Lauraceae
Tetradenia riparia
Del. Sandie Burrows

Vitex doniana
Del. Sandie Burrows

Cryptocarya liebertiana
Del. Pat Halliday

Cassytha filiformis
Del. Sandie Burrows
Ocotea usambarensis  
Del. Pat Halliday

Genlisea hispidula  
Del. Sandie Burrows

Linum volkensii  
Del. Sandie Burrows

Utricularia livida  
Del. Sandie Burrows
The family Lentibulariaceae comprises plants which are insectivorous, trapping micro-organisms in tiny traps situated in or on their roots. They are almost all marsh plants, or aquatic.

**Genlisea hispidula** Stapf.
Small terrestrial herb with tufted (rosulate) leaves; foliage leaves spatulate with a long petiole, trap leaves descending below ground, tubular, ending in 2 ribbon-like, helically twisted arms; flowering stalk 100–300 mm tall, branched or not, flowers pink, mauve or blue, upper corolla lip more or less round, ovary and capsule densely hairy; in seasonally or permanently wet grassland; 1,000–2,700 m. Widespread in tropical Africa from South Africa to Africa.

**Genlisea subglabra** Stapf.
*Genlisea subsp. subglabra* (Stapf) P.Taylor
As for *G. hispidula*, but with the upper lip of the corolla oblong-lanceolate, and the ovary and capsule more or less hairless; in swamps, on Nyika growing in association with *Lobelia mildbraedii*. D.R.C., Burundi, Malawi, Zambia, and Malawi.

**Utricularia appendiculata** E.A.Bruce
Terrestrial herb; leaves rosulate, flat on the ground, often dead at flowering, linear, to 30 mm long, 1.5–3 mm wide; flowering stalk twining, to 600 mm high, flowers white, cream or pale yellow, calyx lobes unequal; in bogs and marshes; 200–1,860 m. Zimbabwe to Cameroon and Uganda; also in Madagascar.

**Utricularia livida** E.Mey.  
*Utricularia odontosepalaba* Stapf.
Terrestrial herb; leaves tufted, sometimes absent at flowering, linear to obovate, 10–70 x 1–6 mm; flowering stalk erect, simple, 20–800 mm long, flowers violet or white with a yellow spot on the lip, calyx lobes subequal; in wet boggy grassland and wet soils over rock; 0–2,600 m. Widespread in Africa; also in Madagascar and Mexico.

**Utricularia welwitschii** Oliver var. odontosepala (Stapf) P.Taylor
Terrestrial herb; leaves scattered on the stolons, narrowly obovate-spathulate, 10–30 x ca 1 mm; flowering stalk slender, straight, 50–250 mm tall, flowers mauve or violet with a yellow blotch, calyx lobes subequal; in damp grassland and shallow wet soil over rocks; 1,300–2,200 m. N. Malawi, Zambia, and D.R.C. (Katanga).

**Utricularia prehensilis** Baker ex Stapf
Terrestrial herb; leaves numerous on the stolons, usually decayed at flowering; leaves obovate-spathulate, to 6 x 1 mm; flowering stalks 20–300 mm tall, papillose basally, flowers mauve to white with a yellow spot on lower throat, calyx lobes unequal; in damp sandy or peaty grassland, also shallow wet soil over rocks; 1,500–2,100 m. Zimbabwe to Angola and Ethiopia.

**Utricularia pendactyla** P.Taylor
Terrestrial herb with 2–5 tufted leaves, often decayed at flowering; leaves obovate-spathulate, to 6 x 1 mm; flowering stalks 20–300 mm tall, papillose basally, flowers mauve to white with a yellow spot on lower throat, calyx lobes unequal; in damp sandy or peaty grassland, also shallow wet soil over rocks; 1,500–2,100 m. Zimbabwe to Angola and Ethiopia.

**Utricularia pubescens** Sm.
Terrestrial herb; leaves scattered on the stolons, usually present at flowering, linear to narrowly obovate, to 100 x 3 mm; flowering stalk erect or twining, slender, 30–350 mm long, flowers yellow, calyx lobes more or less unequal; in bogs, marshes, and seasonally flooded ground by lakes and rivers; 0–2,100 m. Widespread in E. and southern Africa; also in Madagascar.

**Utricularia scandens** Benj.
*Utricularia gibbsiae* Stapf.; *Utricularia schweinfurthii* Baker ex Stapf.
Terrestrial herb; leaves few on the stolons, linear; to 10 x 1 mm; flowering stalk slender, erect or twining, 30–350 mm tall, flowers yellow, calyx lobes slightly unequal; in boggy grassland and among mosses on wet rocks; 1,000–2,250 m. Botswana and Zimbabwe northwards throughout tropical Af-
**LAURACEAE**

**196 Plants of the Nyika Plateau**

That two twining species of Cyphia may all belong to one of the above species of *Genlisea*.

**Malawi.** Nyika National Park, without locality or collecting details (Patel 1999).

**Lobelia welwitschii** Oliver

Terrestrial herb; leaves scattered on the stolons, often decayed at flowering, obvate-spatheulate to linear-oblancoate, to 30 x 0.5–2 mm; flowering stalk robust, erect or twining, 40–500 mm tall, flowers mostly violet with a yellow blotch, calyx lobes subequal; in damp sandy or peaty grassland; 900–2,000 m. South Africa to Angola, C.A.R. and Tanzania; also in Madagascar.


**Malawi.** Nyika plateau, Lake Kaulime, 2,200 m, 1958, Robson 285 (K, LISC, SRGH).

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**Genlisea africana** Oliv.

This species is not recorded from Malawi in the comprehensive revision of the African *Genlisea* (Fischer et al. 2000). This collection probably belongs to one of the above species of *Genlisea*.

**Malawi.** Nyika National Park, without locality or collecting details (Patel 1999).

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**LINACEAE**

**Linum thunbergii** Eckl. & Zeyh.

Perennial (or annual?) herb 150–600 mm tall, stems erect, single or in groups, mostly unbranched; leaves opposite basally, alternate higher up, oblong-lanceolate to linear, 9–20 x 2–5 mm, broader towards the base of the stem; flowers terminal with 5 yellowish petals; in grasslands and marshes; 1,500–2,150 m. South Africa, Zimbabwe, Angola, Malawi, and Tanzania.


**Malawi.** Nyika plateau, 1961, Robinson 4506 (K); Mpopoti, 2000, Thera 4515 (SRGH, holo.).

**Linum volkensii** Eng.

**Linum bolstii** Eng. ex R. Wilczek

Perennial or annual herb 200–750 mm tall, stems erect, single or in groups, unbranched; leaves alternate throughout, linear-lanceolate, 10–25 x 1–3 mm; flowers terminal, with 5 dull yellow petals, sometimes with reddish veins; in grassland and stony areas, sometimes by streams; 1,800–2,100 m. Malawi and Mozambique to Ethiopia.

**Source.** Brummitt (1973).

**Malawi.** Nyika National Park, 8 km E. of Nganda, 1972, Brummitt, Munthali & Syngue 144 (K, MAL); Juniper Forest Reserve, 2000, Burrows & Burrows 6946 (PRE).

**Radiola linoides** Roth

Annual herb 10–70 mm tall, branching repeatedly and equally in the upper half; leaves opposite, elliptic to rounded, 1–3 mm long, 1-nerved, hairless; flowers with 4 white petals in clusters at the branch tips; in tussocky grassland; 1,800–2,300 m. Known only from the Nyika plateau in the *Flora zambesiaca* area; also in Tanzania, Ethiopia, Cameroon, Europe, and Russia.

**Malawi.** Nyika plateau, without precise locality, 1946, Brass 17292 (K).

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**LOBELIACEAE**

**Cyphia brachyandra** Thulin

Twining slender herb to 2 m long, from a root tuber to 30 mm diameter, stem more or less unbranched, ribbed, leaves 35–85 x 2–30 mm, linear to ovate, base tapering, margins finely toothed, hairless; flowers 20–30 in a lax raceme, pink to mauve; in upland grassland. N. Malawi, D.R.C. (Shaba), and Tanzania.


**Malawi.** Nyika plateau, Chelinda Bridge, 1970, Pawek 3423 (K).

**Cyphia erecta** De Wild.

Slender twining herb to 0.8 m tall, from a round tuber, stem more or less unbranched, leaves sessile, 30–110 x 3–25 mm, linear to broadly elliptic, base tapering, margin finely toothed, glabrous or not; in grassland, woodland, and thickets. Malawi, Zambia, D.R.C. (Shaba), and Tanzania.

**Malawi.** Nyika National Park, without locality or collecting details (Mill 1979).

**Cyphia asiandra** Diels

**Cyphia nyasica** Baker; **Cyphia exelliana** Wimm.

Twining or climbing herb from a round tuber, often forming tangled masses; leaves petiolate, 30–100 x 6–40 mm, linear to ovate, base tapering to cor- date, margins serrate, hairy or not; flowers in a lax raceme to 500 mm long, pink, purple or white, swollen at the base; in grassland, woodland, and thickets. Mozambique, Malawi, Angola, D.R.C., and Tanzania. The Nyika material may all belong to *C. brachyandra*; it is unlikely that two twining species of *Cyphia* occur at Chelinda Bridge.

**Source.** Mill (1979).

**Malawi.** Nyika National Park, Chelinda Bridge, 2000, Thera 3037 (MAL); Juniper Forest, 2000, Chapama 212 (MAL).

**Cyphia nyikensis** Thulin

Erect herb 150–230 mm tall, stem unbranched, ribbed, leaves subsessile, crowded at the base of the stem, 20–45 x 7–18 mm, lanceolate to elliptic, base tapering, margin serrate, hairless; flowers pink, in a dense terminal raceme to 30 mm long; in shallow soil over rock. Endemic to the Nyika plateau.


**Malawi.** Nyika plateau, without precise locality, 2,400 m, 1961, Robinson 4515 (SRGH, holo.).

**Cyphia richardsiae** Wimm.

Erect herb, unbranched, ribbed, 200–500 mm tall, leaves sessile, 20–75 x 3–8 mm, linear to linear-lanceolate, margin revolute, thickened and finely toothed, hairless; flowers 10–30 in a dense raceme 40–160 mm long, pink, mauve or white; in upland grassland. N. Malawi, D.R.C. (Shaba), and Tanzania.


**Malawi.** Nyika National Park, Nganda peak, 2,600 m, 1975, Pawek 9282 (SRGH).

**Lobelia giberroa** Hemsl. ●

**Lobelia squarrosa** Baker

Perennial plant 2–9 m tall in flower; leaves narrowly oblancoate to ob-long-ovate, 230–900 x 40–150 mm, hairy below, hairy or not above, margins serrate to dentate; inflorescence 1–3 m long, flowers greenish white tinged with blue; on forest margins and in forest clearings, often in secondary forest. N. Malawi to Ethiopia. The most widespread of the ‘Giant Lobelias’.

**Source.** Brummitt (1972).

**Malawi.** Nyika National Park, Kawoziya, margin of forest E. of summit, 1972, Brummitt & Syngue 217 (K, MAL, SRGH).

**Lobelia goetzei** Diels

**Lobelia bolstii** sensu E.Wimm.
Radiola linoides
Del. Sandie Burrows

Cyphia erecta
Del. Maureen Church

Lobelia giberroa
Del. Maureen Church

Lobelia welwitschii
Del. Maureen Church
Annual or perennial more or less erect herb, stems few to many, 150–700 mm, ribbed, hairy, leaves oblonglanceolate to obovate or elliptic, 15–53 x 7–22 mm, base tapering, margins finely toothed, hairy on both sides; flowers blue, pink or white; in upland grassland, forest margins, often on disturbed ground. South Africa to Zimbabwe.

**Malawi.** Nyika National Park, without locality or collecting details (Mill 1979, as *L. holstii*).

**Lobelia mildbraedii** Engl. ♦

Plant 1–3.5 m tall when in flower, suckering from the base, stem erect, thick, hollow, leaves sessile, linear to narrowly lanceolate, 150–400 x 20–40 mm, base rounded, tip tapering, margins more or less entire, glossy above, finely hairy below; inflorescence ca 1.5 m long, flowers pale blue to greenish; in upland bogs (dambos). N. Malawi to Uganda. This large plant with its candle-like spikes of flowers is a characteristic sight of the Nyika dambos, particularly at Lake Kaulime.


**Malawi.** Nyika National Park, 1.6 km N. of Rest House at Chelinda, 1962, *Tyrer* 730 (BM, SRGH).

**Lobelia ovina** Wimm.

Perennial herb from a woody rootstock, stems few to several, erect, 150–800 mm tall, hairy, leaves linear to ovate, 10–16 x 1.2–9 mm, base truncate, finely hairy on both sides, margins entire or finely toothed; flowers 16–23 mm long, blue or mauve, with two linear crests in the mouth; in upland grassland, often evident after burning. Confined to the Nyika Plateau and S. Tanzania.


**Zambia.** Nyika, without locality, 1974, *Fanshawe* 12173 (K).

**Lobelia stricklandiae** Gilliland ♦

Perennial 2–6 m tall in flower, suckering from the base, leaves narrowly oblonglanceolate, to 500 x 100 mm, acuminate, margins serrate, few hairs on both sides; inflorescence 3–4 m long, flowers mauve to pinkish purple; on forest margins and in forest glades, often on stream banks. South Africa (Soutpansberg) to Tanzania.

**Malawi.** Nyika National Park, stream below Juniper Forest Reserve, 2000, *Koekkoek* 1917 (PRE); *Thazina* Gate, below staff quarters, 2000, *Burrows & Maroyi* 6829 (Buffyelds Herbarium).

**Lobelia trullifolia** Hemsl. subsp. *trullifolia* ♦

*Lobelia nyikensia* Baker [Type: *Nyika Plateau, Wfyte s.n. (K, holo.; B)]; *Lobelia intertexta* Baker [Type: *Nyika Plateau, Wfyte s.n. (K, holo.; B, E)]; *Lobelia usambarensis var. calantha* E.Wimm. [Type: *Nyika Plateau, Jackson* 871 (PRE, holo.).]

Annual or short-lived perennial, erect or straggly, much-branched herb 40–500 mm tall, leaves 5–40 x 4–30 mm, ovate to subreniform or elliptic, crenate to pinnatifid, hairy or not; flowers blue to pale pink, 7–16 mm long; in grassland, forest margins, roadsides, often on rocky or bare ground. Malawi and Zambia to Ethiopia. It is probable that *subsp. minor* Thulin (flowers 3–6.5 mm long) also occurs on Nyika. This is the common small lobelia of Nyika which adorns the roadsides and the airfield in autumn and early winter.


**Lobelia welwitschii** Engl. & Diels ♦

Perennial, erect or ascending rhizomatous herb 100–500 mm tall, stems not or sparsely branched, leaves elliptic to narrowly lanceolate, to 12 x 3–6 mm, minutely toothed, hairless; flowers blue (rarely white) with 2 bumps at mouth of the tube; in bogs, swampy ground, lake edges, and stream banks. Zimbabwe to Cameroon and Ethiopia.


**Malawi.** Nyika National Park, Lake Kaulime, 2,150 m, 1958, *Robson* 631 (BM, LISC, SRGH); E. foot of Nganda, 1972, *Brummitt & Synge* 96 (K, MAL, SRGH).

**Cypria brunnmittii** Thulin

According to Thulin (*Flora zambesiaca* 7(1): 152 (1983)) this species is confined to Mt. Mulanje and is therefore excluded here.

**Malawi.** Nyika National Park, without locality or collecting details (Patel 1997).

**Cypria decorata** Thulin

This species is endemic to Mt. Mulanje and it is unlikely that this collection belongs to this taxon (R. Brummitt, M. Thulin, pers. comm.) and it is therefore excluded here until its identity is confirmed.


**Cypria mazoensis** S.Moore

This species is not recorded from northern Malawi and Thulin would also have seen the specimen in his list for the compilation of *Flora zambesiaca* on which Mill based the inclusion of this species. Since he has not quoted this species from Malawi (N), we have excluded it here.

**Malawi.** Nyika National Park, without locality or collecting details (Mill 1979).

**Lobelia heynana** Roem. & Schult.

This species is not listed for any country outside Zambia within the *Flora zambesiaca* area and, since we have no details of the collection, it is excluded until such time as the specimen is confirmed. It may well be a misidentification of the closely allied *L. inconspicua* A.Rich. (see *Flora zambesiaca* 7(1): 135 [1983]).

**Malawi.** Nyika National Park, without locality or collecting details (Mill 1979).

**Excluded species**

**Agelanthus bipartitus** Balle ex Polhill & Wiens

Small epiphytic parasitic shrub to 1 m wide; leaves alternate, thin, elliptic to oblong-elliptic; flowers 2–4 in a sessile umbel, calyx circumsissile; corolla 32–42 mm long, red with yellow lobes with red tips; in montane forest, on various hosts, flowering January to August; 1,300–2,250 m. Confined to the Southern Highlands of Tanzania and the Nyika Plateau.


**Malawi.** Nyika Plateau, Juniper Forest, 2,250 m, 1946, *Brass* 17182 (BR, K, MO, US); *Juniper Forest, 2,200 m, 1985, Bangpton 6 (K); below Sangule Kopje, 7 km S.W. of Chelinda Camp, 2,255 m, 1970, *Brummitt* 10760 (K, MAL, SRGH); Zovochipolo, 2,100–2,200 m, 1981, *Downett-Lemaire* 118 (K).

**Agelanthus fuellebornii** (Engl.) Polhill & Wiens ♦

*Loranthus annulatus* Engl. & K.Krause; *Tapinanthus fuellebornii* (Engl.) Danser

Epiphytic parasitic shrub with densely lenticellate branches; leaves alternate, petiole 5–20 mm, lamina elliptic, leathery, glaucous; flowers 2–6 in a pedunculate umbel, calyx splitting lengthwise, corolla 35–50 mm long, red, with yellow over the vents, and red tips; berry red; in high-rainfall miombo woodland, commonly on *Protea, Dombeya, Cordia, Maytenus*, and *Brachystegia*, 1,150–1,950 m. Tanzania, N. Zambia, Malawi, and Zimbabwe.

**Source.** Mill (1979); Polhill & Wiens (1998: 167).

**Malawi.** Nyika Plateau, Chisanga Falls, 1,800 m, 1982, *Brummitt, Polhill & Banda* 16192 (K).

**Agelanthus molleri** (Engl.) Polhill & Wiens

*Misidentified* as *Tapinanthus molleri* (Engl.) Danser

Much-branched epiphytic parasitic shrub to 1 m, stems densely hairy; leaves
Agelanthus fuelebornii
Del. Sandie Burrows

Englerina inaequilatera
Del. Sandie Burrows

Erianthemum dregei
Del. Christine Grey-Wilson

Globimetula anguliflora
Del. Sandie Burrows

Oedina pendens
Del. Christine Grey-Wilson

Phragmanthera usuiensis subsp. sigensis
Del. Christine Grey-Wilson
more or less opposite, petiole 5–15 mm long, lamina lanceolate to elliptic-lanceolate, dull green, slightly glaucous, hairy or not; flowers 2–8 in an umbel, corolla 38–42 mm long, greenish to pink, densely covered with branched hairs; a parasite of *Combretum*, *Ficus*, and legumes, flowering mainly from January to May. Zimbabwe to Angola, D.R.C., and Tanzania.


Malawi. More than 15 gatherings, e.g. N. end of Nyika Plateau, 2,260 m, 1972, Syngue WC 287 (K, MAL, SRGH); by junction of Nhathile Road with Cheilenda–Rumphi Road, 2,200 m, 1982, Brummitt, Polhill & Banda 16195 (BR, K, MAL).

Zambia. More than 8 gatherings, for example, Nyika Plateau, S. of Zambian Rest House, 1989, Goyder, Pope & Radcliffe-Smith 3268 (K); edge of Manyenjere Forest, 2,050 m, 1980, Dowsett-Lemaire 119 (K); Chowo Forest, 1,930 m, 1967, Richards 22698 (BR, K), ibid., 1,800 m, 1978, E. Phillips 3391 (K, MO, SRGH, WAG).

**Englerina kapiriensis** (Balle) Polhill & Wiens

*Englerina kapiriensis* (Balle) Polhill & Wiens

Parasite with mostly pendulous 0.7 m stems; leaves petiolate, leathery, linear to linear-lanceolate, base decurrent, subglabrous, slightly glaucous; flowers 4–9 per umbel, 20–22 mm long, yellow with greenish tube, with spreading linear lobes; in *Brachystegia* woodland, sometimes on *Morella* (*Myrica*). D.R.C., N. Zambia, and Malawi.

**Source.** Brummitt (1973); Polhill & Wiens (1998: 130).

Malawi. Nyika National Park, 8 km E. of Nganda, by tributary of Wovwe River, 1,980 m, 1972, Brummitt, Munthali & Syngue WC 127 (K).

**Erianthemum dregei** (Eckl. & Zeyh.) Tieghem

*Erianthemum dregei* Eckl. & Zeyh. var. *nyasica* Sprague

Stems with white or tawny hairs, more or less hairless with age; leaves opposite or alternate, petiole 3–15 mm long, lamina elliptic-oblong to ovate, densely hairy, at least below, base cordate; flowers 1 to several in leaf axils or old nodes lower down, corolla 30–50 mm long, yellowish green, densely hairy, berry orange; parasitic on a wide variety of host trees. Ethiopia to South Africa. Although this record is unconfirmed, this species may well occur, but the species in the forest canopy is likely to be *E. schelei*, and that in miombo *E. taborensis*. 


Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

**Erianthemum nyicense** (Sprague) Danser

*Erianthemum nyicense* Sprague; *Erianthemum subacereus* Weim.

Stems with tawny hairs, becoming hairless; leaves more or less opposite, mainly clustered on short shoots, petiole 0.9–9 mm, lamina elliptic-oblong to ovate, densely hairy; flowers mostly terminal on side shoots, or axillary, in clusters of 2–4, with leafy bracts, corolla 35–50 mm long, greenish, flushed with yellow or orange, densely hairy, berry pink-red, hairy; parasite in forest margins and riverine forest, flowering October to February, D.R.C., Tanzania, Zambia, Malawi, and Mozambique.


**Erianthemum schelei** (Engl.) Tieghem

Stems with stalked and branched hairs; leaves opposite, petiole 5–15 mm long, lamina broadly oblong-elliptic to ovate or round, base cordate, hairless above, densely hairy below; flowers 2–4 in clusters at old node points or in axils, corolla 40–50 mm long, basal swelling green, remainder orange, lobes green with red markings, berry orange; a parasite in montane and riverine forest, on a wide variety of hosts, flowering during the rains. Confined to Tanzania, Malawi, and adjacent parts of Zambia.


**Erianthemum taborensis** (Engl.) Tieghem

Similar to *Erianthemum dregei*, but more robust in all its parts and flowering later in *Brachystegia* woodland. Also in Burundi, D.R.C., Zambia, and Tanzania.
Globimetula anguliflora (Engl.) Danser
Parasitic shrub to 1 m, bark smooth, becoming powdery; leaves slightly fleshy, often tinged red when young; flowers 3–15 per umbel, 30–40 mm long, red, with apical angled swelling turning from green to black in bud, lobes revolute, stigma peltate; berry ripening yellow, obovate-truncate; in high-rainfall woodland, particularly on Uapaca, but also on Brachystegia and other leguminous trees. Angola, Zambia, Tanzania, Malawi, and D.R.C.

Malawi. Nyika National Park, S. end of Mbutizanandi Road, 1,900 m, 1987, I.P. & E.A.S. la Croix 4595 (K); Nyika entrance road, just inside park boundary, 1,560 m, 1977, Pawek 12965 (K, MAL, MO); Nhathile Road, down from Nyika, 1,500 m, 1975, Pawek 9339 (EA, K, MAL, MO, PRE, SRGH, WAG).

Globimetula rubripes (Engl. & K.Krause) Danser
Parasitic shrub to 1.5 m, bark not becoming powdery; leaves slightly fleshy, glaucous; flowers 3–10(18) per umbel, red or pink at base, white or grey above, with obovoid apical swelling in bud turning darker, deeply divided with revolute lobes, stigma peltate, berries glaucous turning purple, obovoid-globose, 10–12 mm long; high-rainfall woodland, particularly on Brachystegia, but also on Acacia and Pterocarpus. Angola, Zambia, Tanzania, Malawi, and D.R.C.

Malawi. Nyika National Park, Savi Valley, 1,700 m, 1972, Syringe VWC432 (K, MAL); Chisanga Falls, 1984, Feehan F101 (K, MAL); ibid., 1985, Bampton 11 (K).

Oedina pendens (Engl. & K.Krause) Polhill & Wiens
Dendrophthoe pendens (Engl. & K.Krause) Danser
Robust parasitic shrub, stems hairless at maturity; leaves opposite or subopposite, petiole 10–30 mm, lamina thin, lanceolate to oblong-elliptic, hairless, apex rounded; flowers in racemes in axils or old leaf nodes, corymbose, ovate or elliptic, leathery, dark green above, paler below, more or less minutely hairy, berry blue-green; parasitic on many different hosts, at forest margins, flowering in wet season. Tanzania to N.E. Zambia and Nyika.

Malawi. Nyika National Park, Kasyaula and Zovochipolo Forests (Dowsett-Lemaire 1985); Nyika Plateau, by junction of Nhathale Road with Chelinda-Rumphi Road, 2,200 m, 1982, Brummitt, Polhill & Bandia 16174 (K, MAL).


Phragmanthera cornetii (Dewèvre) Polhill & Wiens
Tapinanthes cornetii (Dewèvre) Danser; Loranthus rugosinobus De Wild.; Tapinanthes ruginobus (De Wild.) Danser
Parasitic shrub, branchlets set with red-brown dendritic hairs, becoming hairless, petiole 5–20 mm long, lamina finely hairy when young, hairy with age; flowers 2–4 in stalkless umbels, corolla yellow, the bulbous base and tips red, the lobes erect, berry reddish, hairy; in miombo woodland, particularly on Uapaca, flowering from May to September; from 900–1,700 m. Angola, D.R.C., Tanzania, Zambia, and Malawi.

Malawi. Nyika, Thazima, 1985, Bampton 60 (K); c. 1 mile N. of Thazima, 1986, la Croix 846 (K, MAL, MO); Nyika Plateau, 13 km [8 miles] N. of M1, 1977, Pawek 12911a (K, MAL, MO); N. of Thazima Entrance, 1984, Feehan F103 (BR, K, MAL, MO).

Phragmanthera eminii (Engl.) Polhill & Wiens
Tapinanthes eminii (Engl.) Danser
Much-branched parasitic shrub, branchlets with buff dendritic hairs, hairless with age, petiole 5–10 mm long, lamina hairy throughout when young, upper surface becoming hairless with age; flowers axillary, 2–3 in an umbel, corolla 40–50 mm long, pale green, densely hairy, lobes reflexed; berry blue-green, hairy; parasitic on a wide variety of hosts in miombo woodland and riverine vegetation, flowering mainly December to March; 900–1,800 m. Tanzania, D.R.C., Zambia, Malawi, Mozambique, and Zimbabwe.


Phragmanthera protecola (Engl.) Polhill & Wiens
Similar to P. eminii, but flowers almost sessile, bracts larger, spatulate to leafy, and branchlets with longer hairs (1–4 mm rather than 0.5–1 mm); scarps and hills in high-rainfall miombo woodland (generally at higher altitudes than P. eminii), commonly on Euclea and Protea. Tanzania, Malawi, and Zambia.

Malawi. Nyika Plateau, Chisanga Falls, 1,800 m, 1982, Brummitt, Polhill & Bandia 16191 (K, MAL, SRGH); 7 km N. of Rumphi–Chisenga Road on road to Nyika Plateau, 1972, Wiens 4609 (K, UT); Mbutizanandi Olera Road, 2,030 m, 1977, Pawek 12941 (K, MAL, MO).

Phragmanthera usuiensis (Oliv.) M.Gilbert subsp. sigensis (Engl.) Polhill & Wiens
Loranthus usuiensis sensu Mill (1979), non DC (1830).

Spreading to pendent parasite, branchlets with stellate or dendritic hairs at first, hairless with age, petiole 10–30 mm long, lamina oblong-lanceolate to elliptic or ovate, leathery, dark green above, paler below, more or less hairless; flowers 2–6 in an umbel, corolla 30–50 mm long, yellow to orange, set with brownish hairs, berry blue-green; in forests of various types and adjacent woodland, up to 2,650 m. Widespread, from Zambia and Mozambique northwards to C.A.R. and Ethiopia; this subspecies from E. Tanzania to N. Mozambique, Malawi, and Zambia.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979): Zovochipolo, 1985, Bampton 59 (K); Juniper Forest, 2,200 m, 1985, Bampton 8 (K).


Tapinanthes erianthus (Sprague) Danser
Parasitic shrub, stems to 1 m, velvety pubescent; leaves grey-green to glau- cous, ovate, cordate at base; flowers red, hairy, with head of bud turning darker, lobes short, reflexed, berries red, ellipsoid, 8 mm long, pubescent; in upland and riverine forest, sometimes in adjacent miombo woodlands; flowering March to November; 1,000–2,200 m. Angola, D.R.C., Tanzania, Malawi, Zambia, and Zimbabwe.

Malawi. Nyika Plateau, Juniper Forest, 2,200 m, 1985, Bampton 9 (K).

Tapinanthes dependens (Engl.) Danser
Parasitic shrub, stems spreading, then pendent, 1–3 m long, glabrous; leaves dull green, linear-lanceolate to elliptic-lanceolate; flowers 2–4 per umbel, pinkish red, often speckled white, with head of bud turning dark, with short reflexed lobes; berries oblong-ellipsoid, 10–12 mm long; in miombo woodland, almost always on Brachystegia or Ischium; flowering mainly March to October. Zimbabwe to Angola, D.R.C., and Tanzania. Not yet recorded on Nyika, but exists nearby and likely to occur: 8 km from Chisenga on Chisenga–Rumphi Road, 1,500 m, 1960, Richards 13306 (BR, K, SRGH).
Ammannia prieuriana Guill. & Perr.  
Erect annual herb 100–400 mm tall, usually branched, stems reddish, 4-angled to winged; leaves opposite, decussate, linear to oblong, base almost hastate-cordate, clasping the stem; flowers in axillary clusters; on sand-banks, marshes, edges of swamps, or shallow water over shettrock in miombo woodland. Widespread in tropical Africa.

Malawi. Nyika National Park, Thazima Gate, 2000, Burrows & Maroyi 6813 (LMA, MAL, PRE, SRGH, UZL).

Rotala capensis (Harv.) R.Fern.
Rotala filiformis (Bell.) Hien.
Annual tufted herb with unbranched stems to 50 mm tall; leaves decussate, linear-lanceolate to oblong, 5–15 mm long; flowers axillary, sessile or subsessile, petals absent, stamens 2, style straight; capsule 2-valved; in pools, streams, swamps. South Africa to Zimbabwe, Zambia, Angola, and Cameroon. This is the only record of this species from Malawi and since it has not previously been listed in Flora zambesiaca from Malawi, and this collection is not confirmed, it must be viewed with some reservation.

Malawi. Nyika National Park, without locality or collecting details (Patel 1997).

Abutilon angulatum (Guill. & Perr.) Mast. var. macrophyllum (Baker f.) Hochr.
Yao: chiwusa, msiri; Chichewa: matodo, matowo (fruits), mtowi, ntowo; Yao: mtowo
Erect, glaucous, yellowish or brownish shrub 1–3 m tall, older stems markedly angular or ridged, all parts finely hairy; leaves cordate-roundish to cordate-ovate, to 300 x 250 mm, dark glaucous grey-green above, much more or less sessile, linear below, narrowly ovate above, 3–5 mm long, base broadly cuneate; flowers axillary, sessile, petals absent, stamens 3, style recurved, calyx ca 1.5 mm long, lobes acute; capsule 2-valved, ellipsoid to obovoid; in shallow, seasonally inundated rock pools, in montane grassland; 2,250 m. This collection keys out to R. wildii, but that species is known only from a single collection from N.E. Zimbabwe and therefore this collection requires further confirmation.

Malawi. Nyika National Park, 6.2 km from Lake Kaulume on Zungwara Loop Road, 2000, Burrows & Burrows 6881 (MAL, PRE, UZL, Buffelskloof Herbarium).

Hibiscus acetosella Welw. ex Hiern
Chichewa: limanda; Yao: linyolo
Annual or perennial herb; leaves roundish in outline, 3- to 5-lobed, to 80 x 80 mm, glaucous, tinged red; flowers up to 100 mm in diameter, purple-red or lemon yellow; a weed of roadsides or cultivated as a vegetable/salad. Possibly wild in Angola, probably cultivated elsewhere.

Source. Flora zambesiaca 1(2): 438 (1961); UZL.

Hibiscus calyphyllus Cav.
Hibiscus ovalifolius (Forsk.) Vahl; Hibiscus undulatus Suess.
Perennial herb or shrub to 3 m; leaves roundish in outline, faintly to distinctly 3- to 5-lobed, hairy; flowers to 120 mm diameter, yellow with a red-brown centre; in rainforest, riverine forest, thickets, and grassland. Widespread in tropical Africa, Madagascar, and the Mascarenes.


Malawi. Nyika Plateau, without locality or collecting details (Mill 1979).

*Hibiscus cannabinus L.  
Kenaf, Java jute, Bombay hemp; Chichewa: (mt)sonkwe
Annual herb to ca 2 m tall, stems prickly; leaves roundish in outline, pinnate with 3–7 elliptic lobes; flowers up to 10 mm diameter, pale yellow, whitish or greyish with a purple centre; cultivated or as a weed of cultivated or disturbed land. Probably a native of India, but now widely cultivated throughout the tropics. Produces a good quality fibre and is grown to provide string. Leaves and flowers are occasionally cooked as a vegetable.


Malawi. Nyika National Park, without locality or collecting details (Mill 1979), Nyika Plateau, 1896, Whyte s.n. (K).

Hibiscus debeestii De Wild. & Th.Dur.
Hibiscus nyikensis Sprague
Perennial herb 1.1–1.5 m tall; leaves narrowly oblong-lanceolate, to 100 x 25 mm, base truncate to more or less cordate, 3- or 5-nerved, margins serrate, hairy on both surfaces; flowers scarlet, 25–35 mm diameter; in upland grasslands and along river-banks; 1,300–2,100 m. Malawi, Mozambique, Zambia, D.R.C., and Tanzania.


Hibiscus lobatus (Murr.) O.Kuntze
Annual herb 0.5–1.3 m tall, stems hairy; leaves roundish, unlobed or 3- to
**Hibiscus ludwigii** Eckl. & Zeyh.

Shrub or perennial herb 2–3 m tall; leaves roundish in outline, to 80 x 80 mm, faintly or distinctly 3- to 5-lobed, base cordate, margins serrate, hairy on both sides; flowers 70 mm diameter, yellow with a purple or red centre; on forest margins; to 2,400 m. Zimbabwe, Malawi, northwards to Ethiopia. Very rare in the *Flora zambesiaca* area.


**Malawi.** Nyika National Park, without locality or collecting details (Patel 1999).

**Hibiscus physaloides** Guill. & Perr.

*Chicorea*: mtsonkwe, nkhiwke, thelele thengo; *Ngoni*: wempe Annual herb to 2 m tall, stems with irritant hairs; leaves to 200 x 150 mm diameter, roundish in outline, 3- to 7-digitately lobed, hairy on both surfaces, with chalky secretions near the leaf base below; flowers ca 90 mm diameter, yellow to yellowish orange with reddish centres; in stony, usually dry places. Widespread in tropical Africa. The stems yield strong white fibre; the flowers are sometimes cooked as a vegetable.


**Malawi.** Nyika National Park, 2,350 m, 1903, *McClounie* 182 (K); without locality or collecting details (Mill 1979).

**Hibiscus rhodanthus** Gürke apud Schinz

*Chicorea*: katambala Perennial herb 50 mm to 1 m tall, producing annual shoots from a woody rootstock; leaves oblong to oblong-elliptic, 220–330 x 8–30 mm, base tapering to rounded, variously hairy, margins distantly serrate; flowers 25–40 mm diameter, red; in open woodland and grassland; 1,150–2,300 m. Zimbabwe, Zambia, Angola, Mozambique, Malawi, and Tanzania.

**Source.** *Flora zambesiaca* 1(2): 457 (1961); UZL.

**Malawi.** Nyika National Park, without precise locality, 1947, Benson 1438 (BM).

**Zambia.** *Nyika Plateau*, without precise locality, 1956, Benson NR 162 (BM); 1955, Lees 70 (UZL).

**Kosteletzya adenosia** (Hochst. ex A.Rich.) Mast. 

Shrub to 2 m tall; leaves 30–65 x 30–75 mm, ovate in outline, faintly 3- to 5-lobed, base cordate, 3- to 5-nerved from the base, margins serrate, hairy on both surfaces; flowers 10–15 mm diameter, pink or purplish; in forest clearings, scrub or grassland; 1,000–2,350 m. Zimbabwe to Ethiopia; also in Madagascar.


**Malawi.** Nyika National Park, 2,350 m, 1896, Whyte s.n. (K).

**Pavonia columnella** Cav.  ❖

Erect to spreading shrub or subrubus 1–2 m tall, stems densely to faintly hairy; leaves broadenly ovate to roundish in outline, 25–120 mm long, 3- to 5-lobed, lobes acute, both surfaces hairy; flowers mauve to pink or reddish, calyx white with 3 dark nerves, epicalyx with 5 bracts; in montane areas in scrub, riverine bush, on forest margins; 1,200–1,500 m. South Africa to Uganda; also on Réunion and Madagascar.


**Malawi.** Nyika National Park, without locality, 1935, *Lawrence* 179 (K); Zovochipolo Forest (Dowsett-Lemaire 1985: 335).


**Pavonia urens** Cav.

Similar to *P. colonella*, but differing in having stinging hairs, a calyx of uniform colour, and an epicalyx with 6–12 bracts; on forest margins and in forest regrowth; 1,550–2,200 m. Widespread in tropical Africa.


**Malawi.** Nyika National Park, without precise locality, 1903, *McClounie* 164 (K).

**Sida alba** L.  ❖

Annual or perennial woody plant, or subrubus, 300–750 mm tall, stems erect or trailing, slightly angular; leaves 20–50 x 5–30 mm, oblong-lanceolate, margin sharply serrate, base truncate to rounded, upper surface dark green, lower surface whitish, hairy; flowers white or yellow; ruderal in woodland and grassland; widespread in Africa; also in America.


**Malawi.** Nyika Plateau, without precise locality, 1903, *McClounie* 164 (K).

*Urena lobata* L.  ❖

bun ochra; *Yao*: msapatonje; *Sukusa*: kolokondwe

Suffrutex or shrub 1–3 m tall, stems with stellate hairs; leaves palmate with 3–5 lobes, roundish or linear oblong in outline, margins serrate, with a conspicuous gland near the base of the midrib; flowers single, rose-pink or mauve, petals 1–15 mm long; a widespread weed of cultivation, occurring throughout the tropics. Sometimes cultivated as a fibre crop; the flowers are also eaten as ndauo.


**MELASTOMATACEAE**

Many collections of *Dissotis melleri* and *Dissotis princeps* have not been identified to subspecific level and are therefore excluded here.

**Antherotoma naudinii** Hook.f.  ❖

Delicate annual herb with usually unbranched, square stems to 300 mm tall, usually much less; leaves opposite, 5–45 x 1–20 mm, 3- to 5-nerved, entire or toothed, sparsely bristly on both surfaces; flowers in terminal groups, mauve to pale pink; in damp areas over rock, moist woodlands, grasslands, and dambos. Widespread in tropical Africa and Madagascar.

**Malawi.** Nyika National Park, without locality or collecting details (Mill 1979).

**Zambia.** *Nyika Plateau*, Kangampande Mountain (Chowo Forest), 1952, White 2736 (COI, FHO, K), specimen sterile, variety not established.

**Dissotis caloneura** Gilg ex Engl. var. indet.

Shrub or small tree to 4 m high, bark flaking in strips; leaves opposite, broadly obovate to ovate-lanceolate, sparsely bristly, rarely glabrous; flowers purplish mauve, receptacle 10-ribbed, glabrous (var. *caloneura*) or with bristles (var. *pilosa*); in exposed situations among rocks in rocky outcrops.

**Source.** *Flora zambesiaca* 4: 253 (1978).

**Zambia.** Nyika Plateau, Kangampande Mountain (Chowo Forest), 1952, *White* 2736 (COI, FHO, K), specimen sterile, variety not established.

**Dissotis melleri** Hook.f. *var. melleri* ♂

*Dissotis whytei* Baker f.

Small tree up to 6 m tall; leaves 45–160 mm long, ovate-lanceolate, discolours, undersides of leaves with obscure venation; flowers purple, receptacle with bristles not capitulate-glandular; in exposed situations on cliffs and in rock crevices or mountain slopes in high-altitude grassland. Moist tropical habitats.


**Zambia.** Nyika Plateau, near Rest House, 1950, Benson NR172 (BM).


As for var. *melleri*, but with the reticulation of the veins prominent on the
Urena lobata
Del. Sandie Burrows

Antherotoma naudinii
Del. Maureen Church

Dissotis speciosa
Del. Sandie Burrows

Memycylon flavovirens
Del. Sandie Burrows
**Ekebergia capensis**  
Del. Sandie Burrows

**Entandrophragma excelsum**  
Del. Sandie Burrows

**Turraea robusta**  
Del. Sandie Burrows

**Lepidotrichilia volkensii**  
Del. Sandie Burrows
lower leaf surface, and the receptacle with at least some bristles with capitate-glandular red tips. Malawi, Zambia, and Tanzania.


**Dissotis princeps** (Kunth) Triana var. princeps

*Dissotis bamberdai* Brennan & Keay

Chichewa: chiuuso

Much-branched shrub 2–4 m tall; leaves usually in whorls of 3, sometimes opposite or in 4s, petiole 5–40 mm long; flowers large, lilac to dark purple or violet, receptacle set with elongate, densely-bristled appendages; in wooded grassland, upland rainforests, and riverine forests. Widespread in tropical Africa. An attractive ornamental shrub.


**Dissotis princeps** (Kunth) Triana var. candolleana (Cogn.) A.Fern. & R.Fern.

As for var. princeps, but with the receptacle bearing only short, sparsely bristled appendages; in swampy grasslands, along streams, and in moist woodlands. South Africa northwards throughout tropical Africa.

**Source.** Brunnitt (1972); *Flora zambesiaca* 4: 264 (1978).


Zambia. Nyika Plateau, Rest House on path to N. Kukuru Waterfall, 1958, Robson 396 (K, LISC).

**Dissotis senegambiensis** (Guill. & Perr.) Triana

Annual or perennial herb to 2 m tall, petiole 2–10 mm long, slender; leaves opposite, on main stem, leaves folded and reflexed, 15–90 mm long, narrowly lanceolate to elliptic-oblong; flowers pale to light purple, receptacle with white hairs and with longish appendages tipped with 1 to few bristles; moist places, forest edges, banks of rivers. Widespread in tropical Africa. None of the specimens identified from Nyika have been keyed down to subspecific level (*vide* *Flora zambesiaca* 4: 268, 1978).

Malawi. Nyika National Park, without locality or collecting details (Mill 1979); Makhanga, 12 km from Thazimba Gate, 2000, Mwanyambo 516 (MAL).

**Dissotis speciosa** Taub.

*Dissotis macrocarpa* Gilg

Much-branched shrub to 2 m tall; leaves sessile or petiole to 3 mm long, opposite, to 75 x 20 mm, flowers violet, petals 30–35 x 25–27 mm; in marshy places, mainly along rivers. Malawi and Zambia to D.R. Congo and Sudan.

**Source.** Brunnitt (1973: 69); *Flora zambesiaca* 4: 258 (1978).


**Memecylon flavovirens** Baker

Shrub to 5 m, or tree to 7.5 m, twigs square; leaves opposite, yellowish green, young leaves conspicuously glaucous; fruit ovoid-ellipsoid, ca 13 x 7 mm, blue-black when ripe; mainly in *Brachystegia—Julbernardia* woodland, sometimes on escarpments, on dry stony ground. Malawi, Zambia, Angola, and Tanzania.

Malawi. Nyika Plateau, without locality or collecting details (Mill 1979); Chisanga Falls, 2000, Burrows & Burrows 6784 (MAL, PRE).

**Ekebergia capensis** Sparrm.

*Ekebergia buchananii* Harms

Semi-deciduous or evergreen tree to 30 m, bark smoothish grey; leaves imparipinnate, rachis and petiole not winged, leaflets in 3–6 pairs, lanceolate to oblong-lanceolate, base asymmetric, apex acute, more or less hairy throughout; flowers creamy white, small, in clusters; fruit a small pink, maroon or black berry to 15 mm diameter; in montane and riverine forest; 1,600–2,450 m. South Africa to Senegal and Ethiopia; occurs in the *Juniperus* forest on the Nyika Plateau.


**Entandrophragma excelsum** (Dawe & Sprague) Sprague

*Entandrophragma stolzi* Harms

Chichewa: mululu; Tumbuka: mukarikari

Large shortly deciduous tree to 45 m tall or more, bole buttressed up to 500 mm long, rachis not winged, adult leaflets entire, glabrous, venation


**Lepidotrichilia volkensii** (Gürke) J.F.Leroy

*Tricilia volkensii* Gürke

Chichewa: nandolo

Small to medium tree 5–10 m tall, bole fluted, branches arching; leaves imparipinnate, with 3–4 pairs of pinnae, base markedly asymmetric, upper surface dark green, more or less hairless, lower surface hairy with minute red and black glands; flowers creamy white to yellowish, fragrant, in axillary clusters; fruit small, 2- to 3-locular, to 15 x 10 mm, encrusted with stellate scales; in understory of montane forest; 1,400–2,300 m. From Malawi through eastern Africa to Ethiopia.


**Turraea robusta** Gürke

Small tree 2–10 m tall, young branches densely hairy, older branches reddish with white lenticels; leaves alternate, simple, obovate to elliptic, lower surface hairy with conspicuous tufts of hairs in the vein axils; flowers in terminal or axillary clusters, petals 12–14 x 4 mm, creamy white tinged with green; fruit a woody capsule 6 x 10 mm; in evergreen forest, secondary forest, *Brachystegia* woodland, and on termite mounds; 1,200–2,000 m. Malawi and Zambia northwards to Kenya. Not listed for Nyika by Dowsett-Lemaire (1985).


Malawi. Nyika Plateau, without precise locality, 1903, McClounie 149 (K); Juniper Forest, 2000, Chikuni 513 (MAL).

**MELIANCEAE**

**Bersama abyssinica** Fresen. subsp. abyssinica

*Chichewa:* chiwindu, mkanga, nkanga; *Ngoni:* nakatimba

Small to medium tree 6–16 m tall; leaves alternate, imparipinnate, less than 500 mm long, rachis not winged, adult leaflets entire, glabrous, venation
Bersama abyssinica
subsp. abyssinica
Del. Sandie Burrows

Stephania abyssinica
Del. Sandie Burrows

Cissampeles torulosa
Del. Sandie Burrows

Tilia cordifolia
Del. Sandie Burrows
not sunken above, petiole glabrous; flowers in terminal racemes to 350 mm long, pinkish; fruit a 4- to 5-valved capsule, smooth, hairy or not, seed bright red, aril yellow; on forest margins or in forest; 1,400–2,400 m. Malawi and Mozambique northwards to Ethiopia.


**Bersama abyssinica** Fresen. subsp. englerana (Gürke) F.White

*Bersama englerana* Gürke

As for var. *abyssinica*, but the rachis of the leaf narrowly or broadly winged, leaflets entire or deeply serrate, sometimes with hairs below, venation sometimes sunken above; in forest gaps, forest margins, and transitional woodland; 800–2,400 m. Zimbabwe, Zambia, Sudan, and Ethiopia. Possibly only an intermediate form between subsp. *abyssinica* and subsp. *nyassae*. **Source.** Dowsett-Lemaire (1985); White et al. (2001).

**Cissampelos torulosa** E.Mey. ex Harv. ❖

Slender twiner; leaves simple, broadly to very broadly ovate, often broader than long, base shallowly to deeply cordate, apex rounded, sometimes minutely mucronate, grey-green, hairless, petiole very slender, 15–50 mm long; on forest margins and in high-rainfall woodland. South Africa to Malawi and Zambia (Nyika only). It appears that this Nyika collection represents the northernmost occurrence of this species. **Source.** White (1962: 431).

**Zambia.** Nyika Plateau, without locality, 1958, Robson 414 (K).

**Stephania abyssinica** (Quart.-Dill. & A.Rich.) Walp. ❖

Slender climber or twining vine, sometimes reaching 20 m, but usually less; leaves distinctive, ovate to almost round, peltate, glabrous (var. *abyssinica*) or hairy (var. *tomentella* (Olivi.) Diels); in or on edges of montane forests, montane scrub, and riverine scrub; up to 2,500 m. Widespread throughout tropical Africa. **Source.** Flora zambesiaca 1(1): 170 (1960); White et al. (2001: 376).

**Tiliacora funifera** (Miers) Oliv. ❖

Liane with stems up to 100 mm in diameter, bearing dense clusters of fruits almost to ground-level; leaves ovate-lanceolate to ovate-oblong, 30–200 x 30–100 mm, base rounded to cordate, usually 3-veined from the base, petiole 15–50 mm long, somewhat swollen and distinctly bent just below the lamina; in drier or mid-altitude forests, often reaching the canopy; 1,350–2,000 m. Southern Africa northwards through central and W. Africa. **Source.** Flora zambesiaca 1(1): 155 (1960); White et al. (2001: 378).

**Malawi.** Nyika National Park, without locality or collecting details (Mill 1979); N. Rukuru Road, 1,700–1,800 m (Dowsett-Lemaire 1985: 362).

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**MIMOSACEAE**

**Acacia abyssinica** Hochst. ex Benth. subsp. *calophylla* Brenan ❖

*Chichewa:* msiqisi

Large strikingly flat-topped thorn tree, bearing slender straight greyish spines, bark pale brown, rough to papery-flaking; leaves 2-pinnate with 15–50 pairs of pinnae, leaflets very small, to 2.5 x 0.4 mm; flowers in round cream-white balls; pods brown, papery, 50–130 x 12–20 mm; in high-altitude wooded grassland and secondary forest, often in wet areas and often gregarious; 900–1,980 m. Zimbabwe to Sudan. **Source.** Flora zambesiaca 3(1): 99 (1970).

**Malawi.** Nyika Plateau, with precise locality, 6,500', 1952, White 2811 (FHO, K, SRGH); Kasewera, 2001, without collecting details (Patel & Overton 2002).

**Zambia.** Nyika Plateau, Kasoma Forest (Dowsett-Lemaire 1985: 315); Nyika National Park, western part of Park, 2000, Phiri 3983 (UZL).

**Acacia albida** Delile

*Faidherbia albida* (Delile) A.Chev. ❖

winter thorn, apple ring acacia; *Tombuka:* msangumsangu; *Yao:* msangumsangu

Large tree to 30 m tall, deciduous in summer, branchlets with straight or slightly curved spines; leaves 2-pinnate with 3–10 pairs of pinnae and 6–23 pairs of leaflets; flowers in creamy spikes; pods flat; thorny, slim, 110–200 x 27–35 mm, purplish brown; in woodland and savanna, often along rivers; 360–1,490 m. South Africa to Botswana, Zambia, and Tanzania. **Source.** Flora zambesiaca 3(1): 68 (1970).


**Acacia gerrardii** Benth. subsp. *gerrardii* var. *gerrardii*

Small to medium tree, 3–15 m tall, bearing short straight spines, bark rough,
Acacia abyssinica
subsp. calophylla
Del. Sandie Burrows

Albizia gummifera
Del. Sandie Burrows

Dichrostachys cinerea
Del. Sandie Burrows

Newtonia buchananii
Del. Sandie Burrows
dark brown to blackish; leaves 2-pinnae with 5–10 pairs of pinnae and 12–23 pairs of leaflets; flowers in white to cream balls; pods linear to falcate, 70–160 x 6–11 mm, finely hairy or not; in woodland and wooded grassland; sea-level to 1,500 m. South Africa to Nigeria and Sudan.

**Source.** Brummitt (1973: 63).

**Malawi.** Nyika, Chipone Valley, 1972, Synge 261 (K, MAL, SRGH, FHO).

**Acacia montigena** Brenan & Exell

Scandent shrub or liane up to 30 m high, branches with prickles; leaves 2-pinnae with 7–19 pairs of pinnae, leaflets linear-oblong; flowers white; cream panicles; pods dark brown, thinnish, 80–180 x 30–45 mm; in evergreen forest. Known only from Malawi. and N. Makari and N. from the Flora zambesiaca area; also in D.R.C., Tanzania, Uganda, and Kenya.

**Malawi.** Nyika Plateau, Kasaula, Dowsett-Lemaire 253 (herbaria not stated).


**Acacia sieberiana** DC. var. woodii (Burt Davy) Keay & Brenan

paper bark acacia; *Chichewa*: minganzolo, mtzidzi; *Tonga*: mungaaatuwa; *Yao*: mlonga, mtete, nkwangwa

Flat-topped tree to about 15 m tall, branchlets hairy, bearing long whitish straight spines, bark rough, light to dark brown; leaves 2-pinnae with 6–23 pairs of pinnae and 14–45 pairs of leaflets; flowers in white to yellowish cream balls; pods thick, 90–200 x 17–35 mm; in woodland and wooded grassland; 700–1,620 m. South Africa (KwaZulu-Natal) to Tanzania. Easily confused with *A. abyssinica* land; 700–1,620 m. South Africa (KwaZulu-Natal) to Tanzania. Easily confused with *A. abyssinica*. ball; pods thick, 90–200 x 17–35 mm; in woodland and wooded grassland; 700–1,620 m. South Africa (KwaZulu-Natal) to Tanzania. Easily confused with *A. abyssinica*. land; 700–1,620 m. South Africa (KwaZulu-Natal) to Tanzania. Easily confused with *A. abyssinica*.

**Source.** Brummitt (1973: 63).

**Malawi.** Nyika, Chipone Valley, 1972, Synge 264 (K).

**Albizia antunesiana** Harms

Small to medium unarmed tree 6–15 m tall, bark roughish; leaves 2-pinnae, with 1–4 pairs of pinnae and 4–9 pairs of leaflets, glabrous, often purplish-green above, paler to glaucous beneath; flowers in greenish yellow to whitish mottled; leaves alternate, broadly ovate to almost circular, base cordate to truncate, margins entire, wavy; fruit (figs) single or paired in leaf axils, receptacle shallowly plate-shaped with numerous slender appendages of various lengths; in miombo woodland, often associated with termite mounds, or in montane grassland among rocks; 2,250 m. Zimbabwe to Angola, Cameroon, and northwards to Sudan.

**Source.** Burrows & Burrows (2003).

**Malawi.** Nyika national park, without locality or collecting details (Mill 1979).

**Mollugo nudicaulis** Lam.

Small rosulate herb with slender leafless inflorescences; leaves in a basal rosette, more or less appressed to the ground, simple, fleshy, oblanceolate to obovate, hairless; flowers whitish; a pantropical weed of wooded savanna, woodland, riverbeds and margins, roadsides, and cultivated areas. **Source.** Flora zambesiaca 4: 544 (1978).

**Malawi.** Nyika plateau, N. Rukuru (Chisanga) Falls, Dowsett-Lemaire 334 (herbaria not stated).

**Xymalos monospora** (Harvey) Baill.

lemonwood; *Yao*: mulaka, nakasawka

Large evergreen shrubs or trees 3–20 m tall, bark pale brown, flaking off in concentric whorled scales; leaves opposite or alternate, leathery, elliptic, margins entire or toothed, shiny green, somewhat quilted above, hairless; flowers yellowish, small; fruit fleshy, ellipsoid, 5–15 mm, orangish; a subcanopy tree of evergreen forests; 550–3,000 m. South Africa to Cameroon and Sudan. The fruits are edible and the wood is used for furniture and hut poles.

**Malawi.** Nyika plateau, kasaula and zvouchipio forests, without collecting details (Dowsett-Lemaire 1985).

**Zambia.** Nyika plateau, Manyenjere, kasoma, and Chowo forests, without collecting details (Dowsett-Lemaire 1985).

**Dorstienia benguellensis** Welw.

Herb with a flattened tuber and annual aerial stems to 500 mm tall, all parts with a milky latex; leaves spirally arranged, thickish, elliptic to ovate, 10–150 x 2–45 mm, finely hairy; margins dentate to crenate; inflorescence axillary, receptacle shallowly plate-shaped with numerous slender appendages of various lengths; in miombo woodland, often associated with termite mounds, or in montane grassland among rocks; 2,250 m. Zimbabwe to Angola, Cameroon, and northwards to Sudan.

**Source.** Burrows & Burrows (2003).

**Malawi.** Nyika national park, without locality or collecting details (Mill 1979).

**Ficus abutilifolia** (Miq.) Miq.

*Ficus soldanella* Warb.

large-leaved rock-fig

Rock-splitting tree up to 15 m tall, bark smooth, pale creamy white, latex milky; leaves alternate, broadly ovate to almost circular, base cordate to deeply lobed, margins entire, wavy; fruit (figs) single or paired in leaf axils, or clustered on bare twigs, roundish, 15–25 mm diameter, reddish when ripe, more or less hairless; in deciduous woodland in rocky areas; 0–1,000 m. South Africa to Guinea in the W. and Ethiopia and Somalia in the NE. Mill’s inclusion of this species is possibly based upon Brummitt’s (1973) record of *F. sp. aff. soldanella*, now *F. abutilifolia*. If so, that record is

**Source.** Dowsett-Lemaire (1985: 361).

**Malawi.** Nyika plateau, Kasaula, Dowsett-Lemaire, no specimen cited.

**Zambia.** Nyika plateau, Kasoma forest, Dowsett-Lemaire, no specimen cited.

**Dichrostachys cinerea** (L.) Wight & Arn.

*Chichewa*: chipangala, kamanganga, nambanghala; *Tumbuka*: mpangana

Spiny shrub or small deciduous tree, bark rough, fissured, branchlets bearing short spine-tipped side branches; leaves 2-pinnae, with 5–20 pairs of pinnae and 9–40 pairs of leaflets (depending upon the subspecies and variety); flowers in pendulous axillary spikes, purple-fluffy near the stalk, yellow apically; fruit in clusters of twisted brown pods; in woodland or scrub. Widely spread in Africa, sometimes regarded as a problematic ‘invader’ plant. Very variable, with a number of subspecies and varieties. The Nyika material has not been identified to subspecific level.

**Source.** Brummitt (1973: 63).

**Malawi.** Nyika, Chipone Valley, 1972, Synge 263 (K).

**Newtonia buchananii** (Baker) Gilbert & Boutique

*Chichewa*: mkweranyami, msejere

Tall canopy or emergent tree 25–35 m tall, unarmed, bark often pale grey to whitish mottled; leaves 2-pinnae, with 12–23 pairs of pinnae and 38–63 pairs of overlapping leaflets, dark glossy green above; flowers in whitish to cream spikes; pods flat, straight, 100–320 x 13–25 mm, splitting into two long valves, remaining attached along one margin; in evergreen forest; 760–1,830 m. Zimbabwe to Angola, Cameroon, and Kenya. See also comments in Dowsett-Lemaire (1985: 362).

**Source.** Dowsett-Lemaire (1985: 361).

**Malawi.** Nyika plateau, N. Rukuru (Chisanga) Falls, Dowsett-Lemaire 334 (herbaria not stated).
Mollugo nudicaulis
Del. Victoria Goaman

Xymalos monospora
Del. Sandie Burrows

Dorstenia benguellensis
Del. Sandie Burrows

Ficus abutilifolia
Del. Sandie Burrows
Morella salicifolia subsp. kilimandscharica var. kilimandscharica
Del. Sandie Burrows

Myrothamnus flabellifolius
Del. Sandie Burrows

Embelia schimperi
Del. Sandie Burrows

Maesa lanceolata
Del. Margaret Tebbs

Myrsine africana
Del. Sandie Burrows
actually referable to *F. ovata* (White et al. 2001: 387), in which case *F. abutilifolia* does not occur on the plateau, although it is common at lower altitudes along the Lake.

**Source.** Burrows & Burrows (2003).

**Malawi.** Nyika National Park, without locality or collecting details (Mill 1979).

**Ficus burkei** (Miq.) Miq., *zimbabweensis* form *Ficus thonningii* auct., pro parte, non Blume (1836) common wild fig; *Chichewa*: kachere

Medium to large briefly deciduous tree, 10–15 m tall, bark grey, smoothish, latex milky, twigs hairy; leaves alternate or whorled, simple, leathery, elliptic to oblong-elliptic, hairy when young, subglabrous with age; fruit (figs) stalked or not, axillary, round, 10–20 mm diameter, hairy; in miombo woodland in higher rainfall areas, often in rocky places. Zimbabwe, E. Zambia, and W. Malawi.

**Source.** Burrows & Burrows (2003).

**Malawi.** Nyika National Park, Thazima Gate, 2000, Burrows & Maroyi 6801 (MAL), 6802 (MAL, UZL); 14 km N. of Thazima Gate, 2000, Burrows & Maroyi 6832 (MAL).

**Ficus ovata** Vahl rough-barked fig, *Tumbuka*: mundola

Small to medium evergreen tree, 10–15 m tall, bark roughish, longitudinally fissured, latex milky; leaves ovate, sometimes elliptic, 100–300 x 60–200 mm, more or less glabrous, glossy above, finely hairy below, apex shortly acuminate; fruit (figs) axillary, single or paired, stalked, ovoid to ellipsoid, 25–30 mm, green with creamy spots, minutely hairy; in miombo woodland, often on termite mounds; 1,100–1,750 m. N. Mozambique, Malawi, and Zambia northwards through much of tropical Africa.

**Source.** Brummitt [as sp. aff. soldanella] (1973); Burrows & Burrows (2003).

**Malawi.** Nyika National Park, Thazima Gate, 2000, Burrows & Maroyi 6801 (MAL, UZL); ridge above Mpondwe Valley, 1972, Syngue 254 (K, MAL).

**Ficus rokko** Warb. & Schweinf. *Ficus natalensis* sensu Dowsett-Lemaire (1985), non Hochst. (1845); *Ficus thomsonii* auct., pro parte, non Blume (1836)

Large evergreen strangling fig tree to 35 m tall, bark smoothish, pale to dark brown, latex milky; leaves stiffly leathery, oblong-elliptic, 75–200 x 32–90 mm, upper surface dark glossy green, paler below, hairless throughout, margins entire, finely rolled under; fruit (figs) axillary, stalked, single or paired, roundish, 15–20 mm diameter, crowned with a prominent nipple; a canopy species (strangling) in evergreen forest; 950–1,950 m. Zimbabwe and Mozambique northwards to D.R.C., Kenya, and Somalia. Confined to the forests of the S.W. on the Nyika Plateau.

**Source.** Burrows & Burrows (2003).


**Ficus sur** Forssk. *Ficus capensis* Thumb.; *Ficus mallotocarpa* Warb.

Cape fig; *Chichewa*: mtundu, mkuyu; *Yao*: mkuju, mpumbumbi

Tree to 12 m (in woodland) or to 25 m (in forest), bark grey, smoothish or flaking, latex milky; leaves oblong-lanceolate to ovate, 55–200 x 20–130 mm, glabrous or with fine hairs below, margins uneven or shallowly toothed; fruit (figs) borne on much-branched leafless trusses arising on the branches or stem, round, 40–60 mm diameter, reddish when ripe; in moist woodland, riverine forest, secondary forest or evergreen forest; 500–2,000 m. Widespread throughout sub-Saharan Africa. The fruit is edible and relished by both humans and birds alike.

**Source.** Burrows & Burrows (2003).


### MYRICACEAE


*Chichewa*: mkano; *Yao*: mkuno

Shrub or small tree to 12 m tall; leaves oblong or oblong-elliptic, 27–100 x 70–120 mm, apex acute, base narrowly tapering, margins subentire; fruit small, 3–4 mm, roundish; in forest margins, riverine scrub in montane grassland, *Brachystegia* woodland, and along drainage lines; 1,100–2,300 m. Zambia (Nyika only), Malawi, Tanzania, and Kenya.


**Malawi.** Nyika National Park, W. slopes of Nganda, 2,530 m, 1972, Brummitt, Munthali 138 (K, MAL); Juniper Forest Reserve, 2000, Burrows & Burrows 6919 (MAL, PRE); ibid., 1982, Chapman 6318 (FHO); ibid., 1965, Lawton 1294 (FHO).

**Morella serrata** (Lam.) Killick *Myrica serrata* Lam.

*Chichewa*: mkano; *Yao*: mkunu

Small tree 1–9 m tall; leaves scented, linear-oblancoate to oblong-elliptic, 70–120 x 10–30 mm, apex acute, base narrowly tapering, margins subentire to coarsely serrate or finely toothed, hairless, but with small yellowish gland dots; flowers in small catkins, male and female separate; fruit small, 3–4 mm, roundish; in forest margins, riverine scrub in montane grassland and in marshy areas in woodland; 1,550–2,150 m. South Africa northwards to Angola, Zambia, and Tanzania.


**Malawi.** Nyika National Park, 8 km E. of Nganda, 1972, Brummitt, Munthali & Synge 138 (K, MAL); 2001, Burrows & Burrows 6871 (PRE).

### MYROTHAMNACEAE

**Myrothamnus flabellifolius** Welw. ❖ resurrection plant; *Chichewa*: chisoni; *Yao*: chanasa

Ascending or erect, much-branched, rather woody shrub 0.3–0.9 m tall, young branches 4-angled; leaves 10–14 x 6–8 mm, rhombic, apex toothed, base tapering, entire, glabrous; flowers small, terminal; fruit a 2- to 3-lobed capsule; on exposed rocky outcrops in grassland and woodland, often in large colonies; 500–2,000 m. South Africa to Namibia and Tanzania. Rare on Nyika.

**Malawi.** Nyika National Park, Jalawe Viewpoint, 2000, Chapama 206 (MAL); 2000, Thera 3085 (MAL).
**MYRSINACEAE**

*Embelia schimperi* Vatke 🟦
*Embelia kilimandscharica* Gilg; *Embelia nyassana* Gilg

Yao: nakonda
Scandent shrub or liane to 6 m, with long trailing branches and short stiff side shoots, lvs 25-100 x 15-60 mm, obovate to roundish, entire, apex rounded to notched, glossy green above, sometimes with black resin-dots; flowers in many-flowered racemes on short side-shoots, white to yellowish; fruit roundish, 5 ± 5 mm diam., red when ripe; on river banks, ravine forest and termitaria in woodland. Widespread in tropical Africa.

**Malawi**. Nyika National Park, without locality or collecting details (Mill 1979); Mwenenilehe, White 12978 (White et al. 2001).

*Maesa lanceolata* Forsk. 🟦

Chichewa: chinumi, mangachule, mdenjele; Yao & Tumbuka: mukakama
Evergreen shrub or small tree to 10 m tall, leaves alternate, variable, broadly elliptic to lanceolate, glabrous or finely hairy, flowers small, cream, scented, borne in axillary clusters, fruit a small berry 3-4 mm diam. whitish to pinkish; in montane and riverine forest and upland scrub. Widespread in tropical Africa from South Africa to the Arabian Peninsula. The roots are said to be toxic, the ripe fruits are used as an anthelmintic for guinea worm.

**Source.** Wye College Report (1972).
**Malawi.** Nyika National Park, NW foot of Nganda, 1972, Brummitt & Synge 1979; Mwenenilehe, White 12978 (White et al. 2001).

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**MYRTACEAE**

*Eugenia capensis* (Eckl. & Zeyh.) Sond. subsp. *gracilipes* (Engl.) F.White

Shrub or small tree 2.5–12 m tall; leaves opposite, ovate, apex drawn out into a long point; flowers with the style-head capitae; fruit round, ca 15 mm diameter, purple-black when ripe; in evergreen forest; 395–1,600 m. Known only from Zimbabwe, Mozambique, and Malawi.

**Source.** *Flora zambesiaca* 4: 190 (1978).
**Malawi.** Nyika Plateau, Luselo Forest, Salubeni 354 (K).

*Eugenia malangensis* (O.Hoffm.) Niedenzu 🟦

Rhizomatous geoxilic suffrutex, stems 150–500 mm long, usually unbranched; leaves opposite or in whors of 3 or 4, narrowly elliptic to linear; fruit roundish, ca 15 mm diameter, purple-black when ripe; in grassland and secondary grassland, sometimes on the edges of marsh/dambos; 1,000–2,150 m. Zimbabwe and Mozambique to D.R.C. and Tanzania.

**Source.** *Flora zambesiaca* 4: 188 (1978).
**Zambia.** Nyika Plateau, 1.5 km S.W. of Rest House, 1958, Robson 616 (BM, K, LISC, SRGH).

*Eugenia malangensis* (O.Hoffm.) Niedenzu 🟦

Rhizomatous geoxilic suffrutex, stems 150–500 mm long, usually unbranched; leaves opposite or in whors of 3 or 4, narrowly elliptic to linear; fruit roundish, ca 15 mm diameter, purple-black when ripe; in grassland and secondary grassland, sometimes on the edges of marsh/dambos; 1,000–2,150 m. Zimbabwe and Mozambique to D.R.C. and Tanzania.

**Source.** *Flora zambesiaca* 4: 188 (1978).
**Zambia.** Nyika Plateau, 1.5 km S.W. of Rest House, 1958, Robson 616 (BM, K, LISC, SRGH).

*Syzygium cordatum* Hochst. ex Krauss 🟦

waterberry; Chichewa: nyowe; Tonga: katope, mchisu, nsinika
Evergreen tree with rounded crown, dark brown to blackish, rough; leaves opposite, the base often clasping the twigs, apex rounded to acute; flowers fluffy, creamy white; fruit urn-shaped to ellipsoid, ca 18 x 9 mm, shiny purple-black when ripe, edible; a tree characteristic of riverine fringes, seepage zones in woodland, and forested gullies. From South Africa to Angola, D.R.C., and Uganda. The whitish wood is borer-proof and is used to make doors.

**Source.** Brummitt (1973).

**Malawi.** Nyika National Park, Sawi Valley, 1,465 m, 1972, Synge 425 (K, MAL, FHO).
**Zambia.** Nyika Plateau, Chowo Forest, without collecting details (Dowsett-Lemaire 1985).

*Syzygium guineense* (Willd.) DC. subsp. *guineense* 🟦

Evergreen tree 2–10 mm tall, bark pale grey, smoothish, becoming dark brown and roughish with age, twigs more or less round in section; leaves 70–140 x 35–85 mm, leathery, glabrous, apex rounded to shortly cuspidate; flowers cream, fluffy; fruit roundish, 13–22 mm diameter, purplish when ripe, edible; in mixed and miombo woodland, on rocky hills and near seepage zones; to 1,750 m. South Africa to Angola, D.R.C., and Tanzania. Bark is used to produce a black dye and the pale red timber is very durable and is used to make doors and door-frames.

**Malawi.** Nyika National Park, Chizoza Gate, 2000, Burrows & Burrows 6953 (PRE).

*Syzygium guineense* (Willd.) DC. subsp. *afromontanum* F.White

Chichewa: mbunguza, mpeuma; Tumbuka: muyenjere
Evergreen tree to 20 m tall, bark pale brown, rough, twigs usually square in section or winged; leaves 55–130 x 20–40 mm, leathery, apex drawn out to a slender point; fruit roundish to ellipsoid, 13–18 mm diameter, purplish black when ripe, edible; in montane forest, high-rainfall miombo woodland, forested gullies, and on rocky hills in high-rainfall areas; 900–2,150 m. From Sudan to Zimbabwe.

**Malawi.** Nyika National Park, about 20 miles on Nyika Plateau, 1953, Chapman 102 (FHO); without locality or collecting details (Mill 1979).
**Zambia.** Nyika Plateau, Manyenjere, Kasoma and Chowo Forests, without collecting details (Dowsett-Lemaire 1985); Kaporekezi Road, 2000, Phiri 2854 (UZL).

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**NYCTAGINACEAE**

*Mirabilis jalapa* L. 🟦

Perennial herb to 1.5 m tall; leaves opposite, ovate, 35–130 mm long, glabrous or nearly so, base cordate to truncate; flowers showy, bell-shaped, purple, red, white or yellow. Introduced from tropical America, now widely cultivated and naturalised in all tropical regions.

**Malawi.** Nyika Plateau, 1903, Mcclounie 123 (K).
Plants of the Nyika Plateau

Rapanea melanophloeos
Del. Sandie Burrows

Eugenia malangensis
Del. Julia Loken

Syzygium cordatum
Del. Sandie Burrows

Mirabilis jalapa
Del. Sandie Burrows
Ochna stolzii
Del. Sandie Burrows

Strombosia scheffleri
Del. Sandie Burrows

Ximenia caffra
Del. Sandie Burrows

Chionanthus battiscombei
Del. Sandie Burrows
**OCHNACEAE**

**Ochna holstii** Engl.  
*Chichewa: mgonelo*  
Tree 8–20 m tall, briefly deciduous, twigs and leaves held in a horizontal plane; leaves elliptic to oblong or oblanceolate, 30–122 x 15–39 mm, margin serrate; flowers 7–14 mm long; in montane forest or on rocky outcrops in montane grassland; 1,600–2,300 m. South Africa through eastern Africa to Ethiopia and Sudan.  
**Malawi.** Nyika National Park, Kasayaula and Zovochipolo Forests (Dowsett-Lemaire 1985: 316).  
**Zambia.** Nyika Plateau, Kangampande Mountain (Chowo Forest), 1952, White 2793 (FHO, K); Chowo Rocks, Dowsett-Lemaire 561a (White et al. 2001: 416).

**Ochna katangensis** De Wild.  
Sulphuretux from a woody rootstock, with numerous branches to 150 mm tall, forming low cushions; leaves narrowly elliptic to linear-oblong, 42–110 x 9–22 mm, tinged bluish green, margins sharply serrate; flowers large, single or 2–5 in an umbel, petals bright yellow to orange, 12–13(20) mm long; in grassland and open woodland subjected to fires; 1,500–2,150 m. Malawi, Zambia, Angola, D.R.C., and S. Tanzania.  
**Malawi.** Nyika National Park, path from Rest House to waterfall (Chisanga Falls), 1,850 m, 1958, Robson 473 (BM, K, LISC, PRE, SRGH).

**OLACACEAE**

**Strombosia scheffleri** Engl.  
*Tumbuka: mwivu*  
Large canopy tree to 30 m, bark smoothish, flaking in patches; leaves simple, alternate, oblong-ovate, leathery, glabrous, more or less glossy above; flowers small, in dense axillary clusters; fruit ca 25 mm long, with a depression at the tip, style persistent; in evergreen forest; 700–1,900 m. Zimbabwe to Nigeria and Kenya. Rare, not recorded by Dowsett-Lemaire (1985).  
**Malawi.** Nyika National Park, Chiwilamera Evergreen Forest patch, Kasaramba Road, 1965, Gilg 337 (PRE); Chiwilamera Evergreen Forest, Kasaramba Road, 1965, Gilg 402 (PRE); Chiwilamera Evergreen Forest, Kasaramba Road, 1965, Gilg 406 (PRE); Chiwilamera Evergreen Forest, Kasaramba Road, 1965, Gilg 411 (PRE); Chiwilamera Evergreen Forest, Kasaramba Road, 1965, Gilg 415 (PRE).  
**South Africa (KwaZulu-Natal) to Ethiopia.**

**Ximenia caffra** Sond.  
*Chichewa: mpini*  
Sour plum; *Chichewa: mgonelo*  
Shrub or small tree to 6 m, branches with straight spines; leaves alternate, sometimes clustered on short side-branches, elliptic, hairy (var. caffra) or hairless (var. natalensis); flowers whitish, densely hairy within; fruit an ellipsoid drupe, fleshy, bright red, edible; in various types of woodland or wooded grassland. South Africa to Angola, D.R.C., and Tanzania. The variety of the Nyika collection is unknown.  
**Malawi.** Nyika National Park, without collecting details (Patel 1999).

**OLAEACEAE**

**Chionanthus battiscombei** (Hutch.) Stearn  
*Linociera battiscombei* Hutch.  
*Chichewa: kapunda, mukowe*  
Evergreen shrub or tree to 15 m tall, branchlets pale grey with prominent lenticels; leaves opposite, elliptic, leathery, glossy dark green above, paler below with hairy domatia (pits) in the vein axils below; flowers in tight axillary clusters, white, fragrant; fruit an ellipsoid drupe, 5–15 mm long, blackish when ripe; in riverine forest and drier types of evergreen forest; 700–1,900 m. South Africa (Limpopo Province) northwards to Angola and Kenya.  
**Malawi.** S.W. Nyika and Juniperus forest (White et al. 2001).  
**Zambia.** Nyika Plateau, Kangampande Mountain (Chowo Forest), 2,130 m, 1952, White 2797 (FHO).

**Chionanthus** sp. 1.  
‘Possibly *C. africanaus* (Knobl.) Stearn, but the specimen is sterile’ (White et al. 2001).  
**Malawi.** Nyika National Park, Chisanga Falls, 800 m, Dowsett-Lemaire 330 (White et al. 2001).

**Jasminum abyssinicum** Hochst. ex DC.  
*Chichewa: kvamwami*  
Evergreen climber to 20 m high; leaves opposite, 3-foliolate, leaflets ovate with a drawn-out tip, glossy green, hairless, with sparsely-haired domatia (pits) in the vein axils below; flowers axillary, white, fragrant; inside or on edges of montane forest; 1,800–2,200 m. Widespread in eastern Africa from South Africa (KwaZulu-Natal) to Ethiopia.  

**Jasminumodoratissimum** L. subsp. *goetzianum* (Gilg)  
*Chichewa: kmpani*  
Green  
*Jasminum goetzianum* Gilg  
Strong woody climber in forest, or shrub on forest margins; leaves alternate, 3-foliolate, leaflets elliptic to ovate, apex acute, glabrous, domatia (pits) absent; flowers terminal or axillary, yellow, fragrant; common on the Nyika in evergreen forest; 2,150–2,450 m. Malawi, Tanzania, N.E. Zambia, D.R.C., and Kenya.  
**Malawi.** Nyika National Park, forest 3 km E. of Nganda, 1972, Brunmitt & Syngue 94 (K); Chichewa Evergreen Forest patch, Kasaramba Road, 1965, Banda 798 (K, MAL, SRGH).

**Jasminum paeflorum** Benth.  
Liane climbing to 6 m high; leaves opposite, simple (unifoliolate), oblance-ovate, hairy or not, hairy domatia (pits) present in the vein axils below; flowers terminal or axillary, white (pink on outside), sweetly scented; in riverine or swamp (mushitu) forest, and at edge of *Neotonia buchananii*.
mid-altitude forest. Zambia and Malawi northwards to W. Africa and Kenya.

**Malawi.** Nyika National Park, Chisanga Falls, 1,750 m, Dowsett-Lemaire 309 (White et al. 2001).

**Olea welwitschi** (Knobls) Gilg & Schellenb.  
*Olea capensis* L. subsp. welwitschi (Knobls) Friis & Green

Large evergreen tree to 30 m or more, bole buttressed in old specimens; leaves opposite, elliptic to narrowly elliptic, leathery, margins usually wavy, apex sharp-tipped, dark glossy green above; flowers in terminal and axillary clusters, white; fruit ellipsoid, to 17 mm long, purplish when ripe; a canopy or emergent tree of evergreen montane forests; 1,150–2,250 m. Zimbabwe northwards to Ethiopia and Cameroon. The timber is hard, durable, and valued for furniture making and building construction.

**Source.** Green (2002: 110).

**Malawi.** Nyika Plateau, 1965, Cottrell 52 (K, SRGH); Juniperus Forest, Chapman 1971 (White et al. 2001).

**Zambia.** Nyika National Park, Manyenjere, Kasoma and Chowo Forests, without collecting details (Dowsett-Lemaire 1985); Chowo Forest, 1,930 m, 1967, Richards 22699 (K).

**Olea europaea** L. subsp. africana (Mill.) Green

*Olea africana* Mill.; *Olea europaea* subsp. cuspidata (Wall. ex G.Don) Cif.; *Olea europaea* sensu White et. al. (2001)

Chichewa: nakatimba

Cif.; *Olea europaea* sensu White et. al. (2001)

Chichewa: nakatimba

**Schrebera alata** (Hochst.) Welw.  
*Schrebera argyrotricha* Gilg; *Schrebera mazoensis* S.Moore

Briquely deciduous tree 4–15 m tall; leaves opposite, imparipinnate, petiole and rachis usually winged, hairless or not; flowers in terminal clusters, white to pink, with a brownish centre, sweetly scented; fruit a woody 2-valved capsule; in riverine forest, on montane forest margins, rocky outcrops, and termite mounds in miombo woodland; 1,000–2,220 m. Widespread in eastern Africa from South Africa to Angola and Ethiopia.

**Source.** Dowsett-Lemaire 1985).

**Malawi.** Nyika National Park, Kasoma and Chowo Forests, without collecting details (Dowsett-Lemaire 1985).

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**Source.** Dowsett-Lemaire 1985).

**Malawi.** Nyika National Park, Kasoma and Chowo Forests, without collecting details (Dowsett-Lemaire 1985).

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**Epilobium capense** Buchinger ex Hochst.  
**Epilobium hirsutum** Buchinger ex Hochst.

Erect perennial herb 0.2–1.6 m tall, stems covered in appressed hairs; leaves very narrowly elliptic to more or less lanceolate, base tapering; flowers white or cream, turning pink after pollination, stigma entire, not cleft; in moist or seasonally wet areas in montane grassland; 500–3,000 m. South Africa to Angola, Cameroon, Uganda, and Ethiopia; also in Madagascar.

**Source.** Flora zambesiaca 4: 325 (1978).

**Malawi.** Nyika Plateau, 24 km on Nyika road, 1956, Chapman 289 (FHO, K).

**Zambia.** Nyika Plateau, 1.6 km S.W. of Rest House, 1958, Robson & Farshawe 619 (BM, K, LISC, PRE, SRGH).

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Erect perennial herb 0.2–1.6 m tall, stems covered in appressed hairs; leaves very narrowly elliptic to more or less lanceolate, base tapering; flowers white or cream, turning pink after pollination, stigma entire, not cleft; in moist or seasonally wet areas in montane grassland; 500–3,000 m. South Africa to Angola, Cameroon, Uganda, and Ethiopia; also in Madagascar.

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**Zambia.** Nyika Plateau, 1.6 km S.W. of Rest House, 1958, Robson & Farshawe 619 (BM, K, LISC, PRE, SRGH).

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**Epilobium hirsutum** L.  
**Epilobium hirsutum** L.

Robust branching herb, or shrub 1–3 m tall, covered with spreading hairs; leaves narrowly linear to oblonglanceolate; flowers yellow; in swamps and wet places; 600–2,500 m. Malawi, Zambia, Tanzania, and Uganda.

**Source.** Flora zambesiaca 4: 335 (1978).

**Malawi.** Nyika Plateau, Mwanembwa (Mwenembwe), 1903, McClounie 1,27(17).

**Ludwigia stolonifera** (Brenan) Harra subsp. macrosepala (Brenan) Raven

Robust branching herb, or shrub 1–3 m tall, covered with spreading hairs; leaves narrowly linear to oblonglanceolate; flowers yellow; in swamps and wet places; 600–2,500 m. Malawi, Zambia, Tanzania, and Uganda.

**Source.** Flora zambesiaca 4: 335 (1978).

**Malawi.** Nyika Plateau, Mwanembwa (Mwenembwe), 1903, McClounie 1,27(17).

**Ludwigia stolonifera** (Guill. & Perr.) Raven

Herb with prostrate or ascending stems, floating stems with many white erect pneumatophores; leaves dark green, shiny, narrowly lanceolate to narrowly elliptic; on lake or river banks, in water; up to 1,900 m. Through-out most of Africa. This locality on the Nyika Plateau is very doubtful (see also biographical notes on McClounie).

**Source.** Flora zambesiaca 4: 341 (1978).

**Malawi.** Nyika Plateau, Mwanembwa (Mwenembwe), 1903, McClounie 1,27(17).

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**Orobanche minor** Smith  
**Orobanche minor** Smith

Erect parasitic herb 250–400 mm tall, stem simple, unbranched, lacking chlorophyll, yellowish, entire plant glandular-hairy; scales ovate to ovate-lanceolate, acute to obtuse, 5–17 x 2–4.5 mm; flowers tubular, 10–18 mm long, usually curved, lobes curving outwards, dull-yellowish to violet-blue with darker purplish blue veins; a parasitic weed on the roots of a wide...
Epilobium capense
Del. Sandie Burrows

Ludwigia stolonifera
Del. Victoria Goaman

Orobanche minor
Del. Christine Grey-Wilson

Biophytum nyikense
Del. Sandie Burrows

Oxalis anthelmintica
Del. Heather Wood
variety of different plants, in woodland, grassland, and on forest margins; up to 3,000 m. Found throughout the northern hemisphere.

simple, circular to ovate, 40–120 x 35–100 mm, apex obtuse to acute, base cordate, margins entire to shallowly lobed, brownish green above, glaucous below, glabrous, petiole 15–110 mm long; flowers axillary, 1–several in a cluster, bell-shaped, 10–13 mm long; fruit a ovoid-ellipsoid capsule, 40 x 20–25 mm, smooth; in montane forest; 1,700–2,400 m. Malawi, Zambia, Tanzania, and Kenya.


**PHYTOLACCACEAE**

**Phytolacca dodecandra** L’Hér.  
*Phytolacca abyssinica* Hoffm.

Scrambling herb or soft shrub to 13 m tall; leaves ovate to elliptic, 30–140 x 15–95 mm; flowers in terminal or leaf-opposed racemes, creamish; fruit numerous, 4- to 5-lobed, fleshy, orange or red when ripe; in a broad range of habitats; 600–2,800 m. Widespread in tropical and southern Africa and Madagascar.


**Peperomia abyssinica** Miq. var. *byssinica*  
Perennial succulent hairless herb, stems creeping, stoloniferous basally; leaves alternate, 22–47 mm long, rhomboid to elliptic, gland-dotted on both surfaces, 3- to 5-nerved from the base, midrib raised below; flowers and fruit in a long spike, rachis 5–15 mm long; epiphytic or lithophytic on mossy rocks or trees in forest, rocky outcrops or high-rainfall miombo woodland; 1,550–2,850 m. Malawi and Mozambique northwards throughout most of tropical Africa.


**Peperomia goetzeana** Engl.

Perennial succulent sparsely-branched herb, stems rooting at nodes; leaves alternate, rarely opposite, 30–50 mm long, spathulate to obovate-oblong, bright green above, pale green below, 3- to 5-nerved, midrib raised below; flowers and fruit in a spike, rachis 40–65 mm long; on mossy rocks and trees in moist evergreen forest; 750–3,000 m. Malawi and Mozambique to Ethiopia.


**Peperomia retusa** (L.f.) A.Dietr. var. *bachmannii* (C.DC.) Düell

Perennial succulent, creeping or erect herb with stems rooting at nodes; leaves alternate, rarely opposite, small, up to 10–15 mm long, obovate to elliptic, apex rounded, sometimes notched, venation obscure, hairless; flowers and fruit in a long spike, rachis 5–15 mm long; epiphytic or lithophytic in moist evergreen forest; 1,000–2,750 m. South Africa to Kenya.


**Peperomia retusa** (L.f.) A.Dietr. var. *mannii* (Hook.f.) Düell

As for *P. retusa* var. *bachmannii*, but the leaves larger, reaching 30 mm in length, and the rachis of the spike 20–50 mm long; habitat the same. Zimbabwe and Mozambique northwards throughout most of tropical Africa.


**Piper capense** L.f. var. *capense*  
Soft evergreen shrub to 3 m tall, stems soft, green, often trailing; leaves ovate, glossy, deep green, upper surface quilted, lower surface more or less glabrous, leaves and fruit strongly spicy-aromatic, with a peppery taste if chewed; flowers and fruit in whitish spike; in very deep shade of evergreen forest along streams and seepage zones; 650–2,250 m. Widespread in Africa and throughout the tropics.


Zambia. Nyika, 8.8 km S.W. of Rest House, 2,150 m, 1958, Robson 348 (K, SRGH).

**Piper capense** L.f. var. *brachyrachis* (C.H.Wright) Verdc.

As for *P. capense* var. *capense*, but the undersurface of the leaves, the petals, and new shoots more or less densely hairy; in evergreen forest, swamp forest, and high-rainfall miombo woodland. Zambia, Malawi, and S.W. Tanzania.


Malawi. Nyika Plateau, without precise locality, 1,210–2,135 m, 1896, Whyte 199 (K, syn.).

**PITTOSPORACEAE**

**Pittosporum viridiflorum** Sims  
Evergreen tree to 20 m high, usually less, bark light creamy brown, minutely pustulate; leaves alternate, simple, more or less glossy green above, hairless; flowers white, fragrant; fruit a yellowish capsule splitting to reveal red sticky seeds; fruit and leaves aromatic when crushed; in and on edges of montane forest, in riverine forest, moist miombo woodland, and rocky hills; 1,350–2,450 m. Widespread in Africa; common on Nyika.


**POLYGALACEAE**

**Polygala albida** Schinz subsp. *stanleyana* (Chodat) Paiva

Annual herb 60–400 mm tall; leaves linear to narrowly elliptic, 15–70 mm long, hairless or with hairs on margins; flowers white, greenish white to bluish, in dense terminal and lateral racemes, flowering wings less than 6–8 mm long (subsp. *albida*) or 4–6 mm (subsp. *stanleyana* (Chodat) Paiva); in miombo woodland, wooded grassland; also in cultivated areas and along roadsides; to 1,600 m or more. South Africa to Namibia, Angola, D.R.C., and Uganda.
Adenia rumicifolia
Del. Sandie Burrows

Phytolacca dodecandra
Del. Heather Wood

Peperomia abyssinica var. abyssinica
Del. Sandie Burrows

Piper capense var. capense
Del. Sandie Burrows
Pittosporum viridiflorum
Del. Sandie Burrows

Polygala albida
subsp. stanleyana
Del. Sandie Burrows

Securidaca longipedunculata
Del. Sandie Burrows

Polygonum strigosum
Del. Sandie Burrows
**Polygala alatum** Buch.-Ham. ex Spreng.
Annual herb 100–400 mm tall, much-branched from the base; leaves linear-oblong-elliptic, 8–30 mm long, hairy; flowers greenish white, in short, few-flowered lateral racemes; in grasslands and roadsides, often weedy; widespread in tropical Africa and tropical Asia. One of the most variable species of *Polygala*.

**Polygala nepalense** Buch.-Ham. ex Spreng.
Annual herb to 140 mm tall, from a woody rootstock; leaves narrowly elliptic to roundish, 5–15 mm long, thinly hairy, apex obtuse; flowers purplish to pink, sometimes streaked with yellow, in few-flowered terminal racemes; in montane grassland; 1,800–2,300 m. South Africa to S. Tanzania.

**Polygala exelliana** Exell
Shrub or perennial herb to 2.5 m tall; leaves linear-elliptic to elliptic, 25–70 mm long, densely hairy, apex rounded or acute; flowers red or purple, in congested terminal racemes usually 40–50 mm long; in montane grassland, marshes, stream-sides, and forest margins; to 1,640 m. N. Malawi, Tanzania, D.R.C., and Zambia.

**Polygala macrostigma** Chodat
Annual herb 100–400 mm tall, much-branched from the base; leaves linear to very narrowly elliptic, 15–35 x 2–5 mm, apex acute, base tapering, glabrous flowers white with a lilac tinge; among rocks in montane grassland; 2,000–2,470 m. Endemic to the Nyika Plateau in Malawi.

**Polygala splendens** Exell
Annual or biennial shrub to 2 m tall with erect branches; leaves linear, up to 250 mm long, 4–5 mm wide, few stiff hairs on upper surface; flowers purple, fading to white, in terminal, many-flowered racemes to 300 mm long; in woodland or montane grassland; up to 1,900 m. Mozambique, Malawi, Zambia, Angola, and Tanzania.

**Polygala erioptera** Buch.-Ham. ex Spreng.
Erect perennial to 1.5 m tall, stems slender, erect, slightly winged; leaves linear, grass-like, 15–50 mm long, 1–5 mm wide, hairless; flowers blue or greenish, with purple-brown veining, in elongated terminal racemes to 200 mm long; in miombo woodland, wooded grassland or montane grassland. Mozambique, Malawi, Zambia, Angola, and Tanzania.

**Polygala stenopetala** Klotzsch
*Polygala viminalis* Gürke
Perennial herb or shrublet to 1.5 m tall, stems slender, erect, slightly winged; leaves linear, grass-like, 15–50 mm long, 1–5 mm wide, hairless; flowers blue or greenish, with purple-brown veining, in elongated terminal racemes to 200 mm long; in miombo woodland, wooded grassland or montane grassland. Mozambique, Malawi, Zambia, Angola, and Tanzania.

**Polygala usafuensis** Gürke
Annual herb or shrublet 1–2 m tall; leaves linear to very narrowly elliptic, 10–70 mm long, 2–8 mm wide, hairy; flowers salmon-pink to orange-red, in elongated terminal racemes up to 300 mm long; habitat unknown. Zambezian, Malawi, Tanzania, D.R.C., and Angola.

**Polygala virgata** Thunb. var. decora (Sond.) Harv.
Wooden shrub 3–4 m tall, branches often arching; leaves linear to narrowly elliptic, 20–90 mm long, hairy when young only, apex acute; flowers large, deep purple to pale lilac, in terminal many-flowered racemes 30–150 mm long; on margins of montane forest and in montane scrub; up to 2,300 m. From South Africa to D.R.C. and Tanzania.

**Securidaca longipedunculata** Fresen.
*Securidaca* has a wide range of medicinal uses; the bark yields a strong fibre used to make string and fishing nets, once important around Lake Malawi; a rough cloth, *dewere*, was also once woven from the fibre.

**Securidaca nigra** var. *petitiana* (Chodat) Gürke
Annual herb to 0.9 m tall; leaves linear to very narrowly elliptic, hairless, tips needle-like; flowers blue, white or yellow, in elongated terminal racemes to 150 mm long; in miombo woodland or montane grassland. The subspecific identification of the Nyika plants has not been established; both subs. *petitiana* var. *petitiana* and subs. *parviflora* (Exell) Paiva could occur there.

**Securidaca camtschatica** Gürke
Annual herb to 0.9 m tall; leaves linear to very narrowly elliptic, hairless, tips needle-like; flowers blue, white or yellow, in elongated terminal racemes to 150 mm long; in miombo woodland or montane grassland. The subspecific identification of the Nyika plants has not been established; both subs. *petitiana* var. *petitiana* and subs. *parviflora* (Exell) Paiva could occur there.

**Securidaca nigra** var. *petitiana* (Chodat) Gürke
Annual herb to 0.9 m tall; leaves linear to very narrowly elliptic, hairless, tips needle-like; flowers blue, white or yellow, in elongated terminal racemes to 150 mm long; in miombo woodland or montane grassland. The subspecific identification of the Nyika plants has not been established; both subs. *petitiana* var. *petitiana* and subs. *parviflora* (Exell) Paiva could occur there.

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**Rumex abyssinicus**
Del. Sandie Burrows

**Portulaca quadrifida**
Del. Sandie Burrows

**Anagallis djalonis**
Del. Sandie Burrows

**Lysimachia ruhmeriana**
Del. Sandie Burrows

**Ardisiandra wettsteinii**
Del. Sandie Burrows
**PORTULACEAE**

*Portulaca quadriifida* L.  
Prostrate annual herb with a thick taproot, stems reddish; leaves opposite, fleshy, to 10 x 4 mm, lanceolate to elliptic, hairless; flowers with 4(5) yellow, orange or pink petals; seeds many, borne in a conical-ovoid capsule. A weed of cultivation; origin unknown, but throughout the tropics. This species is apparently confined to hot, low-altitude areas within the Flora zambesiaca area and it is highly unlikely that Whyte collected this species on the Nyika.

**PRIMULACEAE**

*Anagallis diyalon* A.Chev.  
*Anagallis pumila* Sw. var. diyalon (A.Chev.) P.Taylor  
Erect tufted annual herb 30–90 mm tall, stems simple or branched from the base; leaves 5–13 mm long, alternate, broadly spatulate, apex acute, base tapering abruptly; flowers white or pale pink, single in leaf axils, on slender stalks to 9 mm long; on damp soils in swamps or near rivers. Throughout tropical Africa from South Africa to Cameroon and Ethiopia; also in Madagascar.

**PROTEACEAE**

*Faura delevoyi* De Wild.  
Medium to large tree to 30 m; leaves sessile to subsessile, to 190 x 50 mm, glossy green above, paler below, glabrous, but with a few long weak hairs near the leaf base beneath, apex acute, mucronate; flowers in dense umbels to 200 mm long, fragrant, smelling of creamy milk; in riverine forest, to 2,000 m. Zimbabwe and Mozambique to Angola, D.R.C., and Tanzania.

**Flora zambesiaca**  
**Nyika National Park, forest 4 km W. of Nganda, 1972, Brummitt & Synge 177 (K, MAL); Lake Kalamu, 1958, Robson & Angus 276 (K).**

*Zambia. Nyika National Park, without locality, 1962, Fanshawe 7324 (K).*

*Lysimachia ruherianae* Vatke  
Robust erect perennial herb to 1 m tall, stems reddish; leaves to 60 x 15 mm, elliptic to lanceolate, surface dotted with irregular black glands; flowers in long terminal racemes to 300 mm long, white, pink or mauve; on damp soils in swamps or near rivers. Throughout tropical Africa from South Africa to Cameroon and Ethiopia; also in Madagascar.

**Flora zambesiaca**  
**Zambia. Nyika, without locality, 1962, Fanshawe 7335 (K, SRGH).**

**Faura cheactiana** (A.Rich.) Chiov. ex Pichi-Sermolli  
**Faura speciosa** Welw.  
**African beech; Chichewa: chinsense; Yao: mseje, matakasika**  
Small to medium tree to 17 m tall, trunk more or less straight, bark rough, mid-grey; petiole pink-red, to 15 mm long, leaves lanceolate-elliptic, to 160 x 35 mm, more or less glabrous throughout, often glaucous-green; flowers in pendulous spikes to 120 mm long, smelling of coconut; in various types of mixed woodland or wooded grassland, often on rocky hillsides; 900–2,400 m. South Africa to Angola, Nigeria, and Ethiopia. Used medicinally to cure diarrhea.

**Flora zambesiaca**  
**Zambia. Nyika National Park, S. slopes of Kawiwoya, 1972, Brummitt & Synge 180 (K, MAL); Zungwara Circular Drive, 2000, Thera 3067 (MAL).**

*Faura saligna* Harv.  
**African beech; Chichewa: chinsense; Yao: mseje, matakasika**  
Small to medium tree to 30 m tall, leaves sessile to subsessile, to 190 x 50 mm, glossy green above, paler below, glabrous, but with a few long weak hairs near the leaf base beneath, apex acute, mucronate; flowers in dense umbels to 200 mm long, fragrant, smelling of creamy milk; in riverine forest, to 2,000 m. Zimbabwe and Mozambique to Angola, D.R.C., and Tanzania. Used medicinally to cure diarrhea.

**Flora zambesiaca**  
**Zambia. Nyika National Park, S. slopes of Kawiwoya, 1972, Brummitt & Synge 180 (K, MAL); Zungwara Circular Drive, 2000, Thera 3067 (MAL).**
**Protea angolensis** Welw. var. angolensis ●
Suffrutex with numerous simple stems to 1 m tall; leaves narrowly elliptic to oblanceolate, rarely broadly elliptic, glabrous and often glaucous; flowering heads 80–120 mm diameter, bracts more or less hairless, flowers white, perianth-claw hairy; in montane grassland, or dambos, occasionally in woodland; 1,200–2,135 m. Zimbabwe to Angola, D.R.C., and Tanzania.

**Protea madiensis** Malawi.
Suffrutex with numerous simple erect stems arising from a woody rootstock, stems more or less glabrous, leaves linear to linear-elliptic, stiff, shiny, glabrous; flowering heads 60–90 mm diameter; in rocky montane grassland; 1,500–2,200 m. Endemic to the Nyika and Mafinga mountain areas of the Zambia–Malawi border. *P. kiharensis* subsp. *kiharensis* is confined to S.E. D.R.C.

**Protea madiensis** Malawi.
Suffrutex from a woody rootstock with several erect stems 150–500 mm tall, stems hairy; leaves narrowly elliptic-oblong to linear-elliptic, thinly hairy; flowering heads 30–45 mm diameter; in montane grassland; 1,830–2,900 m. Endemic to northern Malawi (Nyika and Musuku Hills), Zambia (Nyika), and the Southern Highlands of Tanzania.
*Faurea saligna*
Del. Sandie Burrows

*Proteaa rupestris*
Del. Pat Halliday

*Clematis uhehensis*
Del. Sandie Burrows

*Delphinium leroyi*
Del. Sandie Burrows
**Thalictrum zernyi**
Del. Sandie Burrows

**Gouania longispicata**
Del. Sandie Burrows

**Helinus mystacinus**
Del. Sandie Burrows

**Ranunculus multifidus**
Del. Sandie Burrows

**Phyllica tropica**
Del. Sandie Burrows
but have much narrower and less hairy leaves. The collector in the field suggested Synge 327 to be a hybrid of *P. welwitschii*, with which it grew, and another species. Further field investigation is required.

**Source.** Brummitt (1973: 72).

**Malawi.** Nyika National Park, 2 km W. of Muzengapakweru, 1972, Synge 327 & 374 (K).

**Protea wentzeliaena** Engl.

*Protea neocromita* Bead

**Clematis brachiata** Thunb.

*Chicheuea: chiza cha mabvu, kongwe*

Often robust woody climber to 20 m tall, bark peeling in long flaky strips; leaves pinnate with 3–7 leaflets, petioles often twining as a climbing aid; flowers white with yellow anthers, seeds in a silvery fluffy head, wind-blown; in woodland, wooded grassland, montane forest, and on forest margins; 500–2,450 m. Widespread in tropical and South Africa.

**Source.** *Flora zambesiaca* 1(1): 91 (1960).

**Malawi.** Nyika Plateau, 1903, McCleounie 129 (K).

**Clematis chrysocarpa** Welw. ex Oliv. subsp. *bijuga* Brummitt ●

*Clematopsis chrysocarpa* (Welw. ex Oliv.) Hutch. sensu Brummitt (1976), excl. subsp. *chrysocarpa*

Erect herb or shrublet to 2 m tall; leaves 3-foliolate or pinnate with 2–3 pairs of side leaflets (the side leaflets sometimes 3-foliolate); flowers solitary, white, petals 2–3.2 mm long; seed heads golden brown; in moist montane forest, often along streams in forest; Zambia, Malawi, N. Mozambique, Tanzania, and D.R.C. This and the next species are still very difficult to distinguish from one another since almost all the characters used by Brummitt (1976, 2000) are very plastic and intermediates are common on the Nyika.

**Source.** Brummitt (1976); Brummitt (2000).

**Malawi.** Nyika Plateau, Rumph Rd, just outside National Park, 1967, Hilliard & Bull 4454 (K); ascent to Nyika Plateau from Katumbi 4 km outside National Park, 1970, Brummitt 10922 (K, LISC, MAL, PRE, SRGH); Nyika National Park, without locality or collecting details (Pate1999).

**Clematis uhehensis** Engl. ●

*Clematopsis scabiosifolia* (DC.) Hutch. subsp. *ubehensis* (Engl.) Brummitt

*Chicheuea: chanzi, nakauli*

Erect herb or shrublet 1–2 m tall; leaves simple; flowers one to many per stem, white; petals 3.2–6 mm long; seed head with silvery grey hairs; in montane grassland and montane scrub. Confined to Tanzania, E. D.R.C., and the Nyika Plateau. This species is thought to hybridise readily with *C. chrysocarpa* subsp. *bijuga* (Brummitt 2000: 101).

**Source.** Brummitt (1976); Brummitt (2000).

**Malawi.** Nyika National Park, end of road by Demblo River, 1970, Brummitt 10673 (K); Rumph River bridge, 1974, Pawek 7910 (K, MAL, MO, SRGH); Nyika National Park, without locality or collecting details (Pate1999).

**Zambia.** Nyika Plateau, 1955, Lees 104 (K); 1962, Farshawe 7317 (K); 1964, Benson NR413 (K).

**Delphinium dasycaulon** Fresen. ●

Erect perennial herb to 1.3 m tall, stems hairy or not; leaves elliptic to narrowly oblanceolate, hairy; flowering heads 70–100 mm diameter, bracts thickly set with rusty hairs; in grassland or ericaceous scrub; 1,200–2,000 m. S.W. Tanzania, Malawi (Nyika), Zimbabwe (Chimanimani Mountains), adjacent Mozambique, D.R.C., and Angola. It is with some hesitation that we include *P. neocromita* here as a synonym.

**Source.** Chisampa & Brummitt (1987: 836).

**Malawi.** Nyika Plateau, without precise locality, Beard 983 (Beard 1963: 199); Kasaramba, 1946, Brass 17261 (herbarium unknown).

**RANUNCULACEAE**

**Delphinium welbyi** Hensl.

Erect herb 0.5–1.5 m tall; leaves mainly arising from the base of the plant, borne on long slender petioles, palmate, each lobe with smaller, sharply-pointed teeth or lobes; flowers white with black or dark purple anthers, spur 30–40 mm long, sweetly scented; in montane grassland, often common and conspicuous in the landscape; to 2,440 m. Nyika Plateau northwards to Kenya and Sudan. Pollinated at dusk by hawk moths (see Johnson 2001).

**Malawi.** Nyika National Park, Chosi Viewpoint, 2000, Ixidine 4 (LMA); near Chelinda Camp, 1999, Burrows 6485 (Bulleskloof Herbarium).

**Zambia.** Nyika Plateau, Kangampande Mountain (Chowo Forest), 1952, White 2741 (FHO, K); Rest House area, 2000, Phiri 3831 (UZL).

**Delphinium dasycaulon** × *leroyi*

Flowers sky-blue, very pale blue or off-white, flowering shape and spur length intermediate between the two species. Found occasionally where the two species overlap.

**Source.** Johnson (2001).

**Malawi.** Nyika Plateau, near entrance gate to Nyika (Moriaty 1975: pl. 33, 3).

**Ranunculus multifidus** Forssk. ●

**African buttercup**

Perennial herb to 1 m tall, stems much-branched in upper part; leaves 2- to 3-pinnate, margins coarsely toothed, variously hairy; flowers with 5 yellow petals 3–7 mm long; seeds 40–60 in a spherical head; in wet areas in grassland, dambos, marshes, and stream banks; sea-level to 2,000 m. Widespread in Africa; also in Arabia and Madagascar.

**Source.** *Flora zambesiaca* 1(1): 97 (1960); Brummitt (1972).

**Malawi.** Nyika Plateau, 1896, Whyte s.n. (K); Nyika National Park, E. foot of Nganda, 1972, Brummitt & Synge 108 (K, MAL).

**Ranunculus raeae** Exell

Perennial herb to 0.6 m tall, with tuberous roots, stems hairy; leaves 3- to 5-palmatisect, margins with a few coarse teeth, hairy when young, becoming glabrous; flowers with 5 yellow petals 8–10 mm long; seeds 12–25 in a spherical head; in wet situations in montane grassland up to 2,140 m, or on river-banks at lower altitudes. N.E. Zambia, Malawi, N. Mozambique, Tanzania, and D.R.C.


**Thalictrum rhynchocarpum** Quat.-Dill. & A.Rich.

**false maidenhair**

Soft perennial herb to 4 m tall with fleshy stems; leaves up to 400 mm long, 3- to 4-pinnate, leaflets elliptic to roundish, sometimes 3-lobed or toothed, 8–20 mm broad, base rounded to cordate, texture thin, hairless; flowers small, greenish, in a lax, many-flowered inflorescence; in undergrowth of moist montane forest, often along streams in forest; 1,100–2,400 m. Widespread in the mountainous regions of Africa.


**Malawi.** Nyika Plateau, 2,350 m, 1946, Brass 17281 (K, SRGH); Nyika National Park, Mpongopi Hill, 2000, Salubeni & Mwanyambo 6782 (MAI).

**Zambia.** Nyika National Park, W. of Chowo Forest, 2000, Phiri 3924 (UZL).

**Thalictrum zernyi** Ulbr.

**Perennial herb to 0.5 m tall with erect hairless stems; leaves 15–60 mm long, 2-pinnate, leaflets similar, but much smaller than those of *T.**
Clematis simensis Fresen.
This species is not mentioned for the Nyika in either Flora zambesiaca 1(1)/1960, Dowsett-Lemaire, or any other publication seen by us. White et al. (2001) suggest that C. simensis is not distinguishable from C. brachiata and treat it as a synonym of the latter.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Excluded species

Gouania longisepicata Engl. ♦
Liane up to 20 m, climbing by means of coiled tendrils with reddish hairs; leaves simple, ovate, to 8.5 x 70 mm, hairy, apex acute to mucronate, margin serrulate, base rounded to cordate; flowers small, in leaf-opposed elongate racemes; fruit 3-winged, 6 x 11 mm, hairy at first; in gaps in forests and on forest margins, in montane and mid-altitude forests; 1,100–2,050 m. Zimbabwe and Mozambique northwards to Nigeria, Sudan, and Ethiopia.
Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Helinus mystacinus (Aiton) E.Mey. ♦
Climbing shrub, branchlets hairy, with hairy coiled tendrils; leaves simple, 20–50 x 13–50 mm, ovate to almost circular, apex rounded, mucronate, upper surface hairless, lower surface variously hairy, to 18 mm long; flowers small, in axillary clusters, peduncle to 20 mm long; fruit obovoid, hairy-tuberculate; on forest margins and in wooded grassland; 100–2,300 m. Zimbabwe northwards to Ethiopia; not recorded for Malawi in Flora zambesiaca.

Phyllia tropica Baker ♦
Phyllia emirnensis var. nyassae Pillans ex Verdc. et al.

Rhamnus prinoides L’Hér. ♦
Rhamnus pasciflora A.Rich.
Small tree to 8 m tall, but usually a shrub 1–3 m high, or scandent; leaves alternate, oblong-elliptic, apex tapering, upper surface glossy dark green, paler below, hairs under the Madagascan R. emirnensis (Tul.) Pillans; in our opinion, however, the two are sufficiently distinct to maintain the two species until such time that a comprehensive study proves otherwise.

Cassipourea guimmiflua Tul. var. verticillata (N.E.Br.) J.Lewis
Evergreen tree 3–20 m tall, interpetiolar stipules present; leaves paired, decussate or in whorls of 3, glabrous, entire or faintly serrate; in upland forest, riverine forest, and other forest types; 1,400–2,100 m. Only on the eastern escarpment on Nyika. South Africa to Cameroon and Tanzania; also on Seychelles and the Mascarene Islands.

Cassipourea malosana (Baker) Alston ♦
Cassipourea congensis auct., non DC.

Cassipourea gunniflua var. verticillata (N.E.Br.) J.Lewis

Rhizophoraceae

Alchemilla ellenbeckii Engl. subsp. nyikensis (De Wild.) R.A.Graham ♦
Alchemilla nyikensis De Wild.
Creeping soft herb without a basal rosette of leaves, stems becoming brownish-red; leaves round to reniform, 3- to 5-lobed, lobes shallow, less than half the radius of the leaf, densely hairy or glabrous; flowers and fruit minute on terminal branched inflorescences; in marshy montane grassland or upland bogs; 1,950–2,300 m. Known only from the Nyika and Viphya Mountains of northern Malawi, and Tanzania.
Malawi. Nyika National Park, N.E. foot of Nganda, 1972, Brummitt & Synge 166164 (K, MAL, EA, PRE); Dembo Bridge, 2000, Thera 3010 (MAL); Lake Kaulime, 2,250 m, 1959, Richards 10445 (K).


Alchemilla kiwuensis Engl.
Perennial herb with usually a persistent basal rosette of leaves, often stoloniferous; leaves roundish, 5- to 9-lobed, lobes deep, more than half the radius of the leaf, white hairy on both surfaces; flowers and fruit very small, in short terminal clusters; in upland wet grassland, forest margins, and near streams; 1,200–2,100 m. Zimbabwe to Cameroon and Kenya.
Malawi. Nyika Plateau, road down from Nyika Rest House, 1,800 m, 1959,
**Rhamnus prinoides**
Del. Sandie Burrows

**Cassipourea malosana**
Del. Sandie Burrows

**Cliffortia nitidula**
Del. Sandie Burrows

**Alchemilla ellenbeckii** subsp. *nyikensis*
Del. Sandie Burrows
Hagenia abyssinica
Del. Sandie Burrows

Prunus africana
Del. Sandie Burrows

Agathisanthemum globosum
Del. Sandie Burrows

Rubus chapmanianus
Del. Victoria Goaman
Zambia. Nyika Plateau, without precise locality, 1962, Fanshawe 7265 (K); 2.5 miles S.W. from Rest House, 2,100 m, 1959, Robson & Angus 270 (K).

Cliffortia nitidula (Engl.) R.E.Fr. & T.C.E.Fr.  
Cliffortia linearifolia sensu White et al. (2001).

Erucoid shrub with erect branches to 3 m tall; leaves 3-foliolate, often clustered on short side-shoots, leaflets to 9 x 1 mm, glabrous; flowers axillary, very small, lacking petals; along stream banks in montane grassland, in montane scrub, and forest margins above 1,750 m. South Africa to Angola, D.R.C., and Tanzania.

Malawi. Nyika National Park, Kaziwiziwi River, 4,500', 1959, Richards 10543 (White et al. 2001); between Chisanga Falls and Kaperekzei Gate, 2000, Saluben & Mwanyambo 6836 (MAL).

*Rubus ellipticus* Sm.

Himalayan raspberry

Shrub (bramble) with erect or ascending canes to 5 m long, stems densely covered with stiff straight reddish bristles to 5 mm long; flowers pinkish-white; fruit yellow, orange when ripe, edible. Introduced from Asia via Zomba Botanic Garden, now naturalised on Zomba Plateau and elsewhere in Malawi. A serious invader plant, forming impenetrable thickets; must be eradicated wherever found.

Malawi. Nyika Plateau, Kaziwiziwi River, 4,500', 1959, Richards 10543 (White et al. 2001); between Chisanga Falls and Kaperekzei Gate, 2000, Saluben & Mwanyambo 6836 (MAL).

Rubus iriginianus C.E.Gust.

Low-growing shrub (bramble) with creeping stems; leaves 3-foliolate or simple, lower surface with hairs along the nerves; flowers white; fruit or berries orange; among bracken and grasses in grassland. N. Malawi, Tanzania, and Kenya. Nyika represents the only locality for this species in the *Flora zambesiaca* area.


Malawi. Nyika Plateau, N.W. slopes of Nganda, 2,350 m, 1972, Brunmitt & Synge 45 (K, MAL); Mpupoti, 2000, Thera 3048 (MAL).

Rubus kirungensis Engl.

Scrambling shrub (bramble) to 2 m tall, stems reddish, sometimes whitish, very prickly; leaves imparipinnate with 2–3 pairs of leaflets, or 3-foliolate or simple, leaflets leathery, almost hairless; flowers white or pink; fruit or berries black when ripe; in montane scrub or forest by streams. Malawi, Tanzania, and Uganda.


*Rubus niveus* Thunb.

Mysore raspberry, Java bramble

Shrub (bramble) to 2 m high, stems distinctly white; leaves imparipinnate with 2–3 pairs of markedly pleated leaflets, whitish below; flowers pale pink; fruit purplish when ripe; in grassland and around habitation. Native to India, China, and Indonesia. An escapee from cultivation and a serious invader plant; must be eradicated wherever found.


Rubus pinnatus Willd.

Robust scrambling shrub to 3.5 m high, stems shiny reddish brown, sometimes with a whitish bloom; leaves imparipinnate with 2–4 pairs of leaflets, leaflets with sharply toothed margins; flowers pink to mauve; fruit (berries) red or orange when ripe; in forest clearings, moist gullies, and forest margins; 1,100–2,230 m. Widespread in southern and tropical Africa; also on St. Helena and Ascension Island.


Rubus rigidosus J.E.Sm.

Scrambling shrub (bramble) 1–3.5 m high; leaves dark green above, whitish below; flowers pale pink to purple; fruit or berries deep orange when ripe; roadsides, stream banks, and forest margins; 1,040–2,200 m. Widespread in tropical Africa. Placed in synonymy under *R. apetalus* by Lebrun & Stork (1992), but easily distinguished from the former by the whitish undersurface of the leaves.


Malawi. Nyika Plateau, road to Chelinda, 1959, Richards 10516 (K); Dembrou Bridge, 2000, Kasakula 226 (LMA, MAL, SRGH).

Zambia. Nyika Plateau, ca 4 km S.W. of Rest House, 1958, Robson & Angus 262 (LISC).
Agathisanthemum globosum (Hochst. ex A.Rich.) Brenek. ♣

Agathisanthemum quadrantifolium Brenek. var. pubescens Brenek.

Erect herb to 1.2 m tall, stems sparsely branched, densely hairy; leaves opposite, entire, elliptic, sessile, 25–30 x 2–3 mm, hairless or hairy or scabrid, with several dwarf leaves in axils; flowers small, in dense roundish heads, white yellowish to purple; in grassland, Brachystegia woodland; 975–1,100 m. Zambia to Gabon and Ethiopia.


Type. Zambia.


Anthospermum albohirtum Mildbr.

Dwarf many-stemmed shrub, suberect or rounded and low, 0.2–0.8 m high; leaves in whorls of 3, 3–11 x 0.8–4 mm, both surfaces densely covered in white hairs; flowers in clusters at nodes, very small, greenish yellow to pale yellow; mostly on rocky outcrops; 1,250–2,500 m. Zimbabwe, Mozambique, Malawi, Zambia, and Tanzania.


Canthium oligocarpum Hiern subsp. captum (Bullock) Bridson ♣

Small to large tree 1.5–20 m tall, armed with paired spines; leaves opposite, entire, elliptic to elliptic-oblong, 30–145 x 13–60 mm, strongly discolorous, terry nervous obscure, domatia hairy; flowers axillary, in several-flowered pedunculate cymes; fruit distinctly bilobed; in evergreen rainforest; 1,300–2,100 m. Mozambique, Malawi, and Tanzania.


Malawi. Nyika Plateau, Kasyaunda and Zovichipolo Forests, Dowsett-Lemaire, without linked specimen (herbaria not stated); KwaZambe, Chapman 2026 (herbaria not stated).

Chassalia parvifolia K.Schum. ♣

Bushy shrub or small tree 2–7 m tall; leaves opposite, on longish petioles 20–110 mm long, elliptic to obovate-oblanceolate, 10–35 x 1.5–3.5 mm, hairless, margins entire; flowers in terminal branched clusters, white to greenish white; fruit translucent greenish yellow or pink, turning black; in montane forest, sometimes riparian; 1,280–2,220 m. Malawi and northern Zambia to Kenya.


Coffea mufindiensis Bridson subsp.lundaziensis Bridson ♣

Coffea ligustroides sensu White (1962) and White et al. (2001), non S.Moore (1911)

Evergreen shrub to 4 m high, branchlets flattened, even pubescent; leaves opposite, 20–60 x 8–30 mm, entire, glabrous, midrib reddish below; flowers borne 1–2 per leaf axil, white, corolla tube 2.5–6 mm long; fruit orange to red, 8–10 mm diameter; in understory in montane forest. The variety is endemic to the Lundazi/Nyika/Mafinga Mountains region.


Fadogia cienkowskii Schwein. var. cienkowskii

Erect suffrutex 0.2–1 m tall, stems sparsely branched; leaves in whorls of 3–4, entire, 20–85 x 3–45 mm, narrowly to broadly elliptic or lanceolate, distinctly discolorous, hairy beneath; fruit dark green turning glossy black,
Amphiasma luzuloides  
Del. Sandie Burrows

Canthium oligocarpum subsp. captum  
Del. Sandie Burrows

Chassalia parvifolia  
Del. Maureen Church

Anthospermum whyteanum  
Del. Sandie Burrows
Coffea mufindiensis
subsp. lundaziensis
Del. Sandie Burrows

Fadogia stenophylla
subsp. odorata
Del. Maureen Church

Galium bussei
var. glabrum
Del. Sandie Burrows

Fadogiella stigmatoloba
Del. Maureen Church

Galiniera saxifraga
Del. Sandie Burrows
to 10 mm diameter, crowned with the persistent calyx; in grassland, wooded grassland, various types of woodland, by dambos, and on rocky outcrops; 600–1,740 m. Zimbabwe to Nigeria and Ethiopia.


**Fadogia homblei** De Wild.

*Fadogia monticola* Robyns

Erect suffrutex 0.3–1.2 m high with reddish 4-angled stems; leaves entire, in whorls of 3–5, 22–120 x 3–38 mm, narrowly elliptic to lanceolate, whitish below with very small hairs; fruit 6–10 mm diameter, black, crowned with the persistent calyx; in miombo woodland, in *Protea* grassland, termite mounds, etc., 1,050–1,800 m. South Africa to Angola and S. Tanzania.


Malawi. Rumphi District, Kaziwiziwi River (probably in Nyika National Park), 1959, Richards 10557 (K).

**Fadogia stenophylla** Welw. ex Hiern subsp. *odorata* (K.Krause) Verdc. 

*Fadogia odorata* K.Krause; *Fadogia stenophylla* Hiern var. *rhodesiana* S.Moore; *Fadogia stolicii* K.Krause

Erect suffrutex 60–400 mm tall; leaves entire, in whorls of 3–4, 10–65 x 4–28 mm, rounded elliptic to narrowly elliptic or oblanceolate, glabrous, rarely hairy, not discolorous; flowers near base of stems, sweet-scented; fruit red when ripe, 7–10 mm diameter, distinctly 2- to 3-lobed; in open grassland, dambos, over laterite, and various types of woodland; 1,250–2,150 m. Zimbabwe and Mozambique to Angola and D.R.C.

Malawi. Nyika Plateau, 8 km N.W. of Lake Kaulime, 2,040 m, 1970, *Brummitt* 11934 (K); Fingira Rock Road, 7,000′, 1977, Pawek 12943 (K, MAL, MO).


**Fadogia triphylla** Baker var. *triphylla*

As for *F. triphylla* var. *triphylla*, but with the stems, leaves, and inflorescences shortly hairy; 750–1,900 m. Malawi, Zambia, D.R.C., and Tanzania. First record for Malawi (N.).


**Fadogia triphylla** Baker var. *giorgii* (De Wild.) Verdc.

Scrambling or climbing perennial; leaves in whorls of 6, 1-nerved, elliptic to ovate, 25–35 x 7–12 mm, upper surface more-or-less hairy; flowers mostly single, greenish to creamy white; fruit covered in brown, densely packed hooked hairs; mostly in forest edge vegetation; 1,800–2,250 m. Zimbabwe to E. Africa; also in Madagascar.


**Galium**

*Galium chloroionanthum* K.Schum.

_Herb or suffrutex to 220–500 mm high, stems unbranched or branched, crenate shortly hairy; 750–1,900 m. Malawi, Zambia, D.R.C., and Tanzania._


**Galium bussei** K.Schum. var. *glabrum* Brenan

Diffrers from var. *bussei* in having glabrous leaves and stems; mostly in woodland, sometimes in disturbed areas. Zimbabwe to Tanzania.


**Galium bussei** K.Schum. var. *strictius* Brenan

Diffrers from var. *bussei* and var. *glabrum* in the stems (at least on the angles) and under surface of the leaves being covered in short, more or less spreading white hairs; in woodland and wooded grassland; 1,000–2,300 m. Malawi and S. Tanzania.


**Galium chloroionanthum** K.Schum.

_Chibeeka: kanika_

Parennial climbing or straggly herb to 2.3 m high, stems and leaf margins covered in prickles (‘Velcro’); leaves in whorls of 6, 1-nerved, elliptic to obovate, 25–35 x 7–12 mm, upper surface more or less hairy; flowers short-petalled; in small tufts, yellow; fruit mostly glabrous; on forest edges, in clearings or bush clumps; 1,700–2,700 m. Zimbabwe to Uganda and D.R.C. Type from Nyika.


**Galium scabrellum** K.Schum.

_Galium bequaerti* De Wild._

Scrambling or climbing perennial; leaves in whorls of 6–10, 1-nerved, 10–15 x 1–2 mm, with a few hairs, prickles along margins and on midrib below; inflorescence many-flowered, yellowish, fruit mostly glabrous; on forest edges, in clearings or bush clumps; 1,700–2,300 m. Zimbabwe to Uganda and D.R.C.


Malawi. Nyika Plateau, without precise locality, 6,000′–7,000′, 1896, Whyte (*Carsson*) 269 (B, holo., K, NU, WU, photos); Mpopoti Peak, 2000, *Willis & Luhanga* 7367 (PRE); Dumbo Bridge, 2000, *Kasakula* 223 (LMA, MAL, SRGH).


**Galium spuriun** L. subsp. *africanum* Verdc.

Annual climbing or scrambling herb; leaves entire in whorls of 6–8, 1-nerved, 15–80 x 2–6 mm, narrow, sharp-pointed, midrib and margins set with small hooked prickles; flowers mostly single, greenish to creamy white; fruit covered with white hooked hairs; along streams and forest margins; 1,800–2,300 m. Throughout eastern Africa.


*Rubia thunbergiana* Eckl. & Zeyh. var. *hirsutum* (Sond.) Verdc.

Rhizomatous perennial herb; leaves in whorls of 4, 3-nerved, ovate to elliptic, entire, without prickles, but with fine short hairs; inflorescence in many-flowered cymes, flowers very small, greenish white to yellowish; fruit densely covered with white hooked hairs; in damp shady places in forest and montane scrub, often near streams; 1800–2,300 m. Asian mountains, quite distinct. First record for Malawi.


**Gardenia subacaulis** Stapf & Hutsch.

Geophytic subshrub (suffrutex); flowers appearing just above ground level, large, white to yellow, sweetly scented; in open grassland and miombo woodland; 780–1,950 m. Malawi (type), Mozambique, Zambia, Rwanda, and Tanzania. Closely related and almost identical (apart from its habit) to *G. ternifolia* subsp. *jovisttonantis*.

Malawi. Nyika Plateau, without locality, collector unknown (Mill 1979); Luwazi Marsh, 4,100’, *Phillips* 629 (K).

**Gardenia ternifolia** Schumach. & Thonn. subsp. *jovisttonantis* (Welw.) Verdc. var. *goetzelii* (Staff & Hutsch.) Verdc.

Small tree to 6 m; often stunted and gnarled, bark smooth, flaking to a brownish or yellowish powdery undersurface; leaves opposite, entire, clustered at twig ends, oblancoate to obovate; flowers white, showy, sweetly scented; fruit roundish, woody, grey; in various types of woodland; 250–2,100 m. Throughout tropical Africa.


**Hedythys thamnoideus** (K. Schum.) Brenek.

Subshrub 0.15–2.0 m high with numerous short axillary branches; leaves opposite, narrowly elliptic to lanceolate, entire, 8–20 x 2.5–8 mm, glabrous or with a few hairs on the margins, whitish silvery below; flowers in terminal heads, white, pink or pale lilac; in evergreen montane forest, 900–2,400 m. Zimba- nya, and Ethiopia; also in the Arabian Peninsula, Pakistan, and India.


Shrub or small understory tree 3–12 m tall; leaves opposite, entire, red when young; flowers bell-shaped, white, spotted pink inside; fruit round, slightly hairy, calyx persistent; in montane forest; 900–2,400 m. Zimbabwe to D.R.C. and Sudan.


Malawi. E. Nyika, without locality or collector (White et al. 2001).

**Hymenodictyon floribundum** (Hochst. & Steud.) B.L.Rob. *Chichewa:* chimbir; *Tumbuka:* mukulakalawhe

Small gnarled shrub to 6 m tall; leaves opposite, elliptic to obovate, 50–180 x 20–115 mm, entire, hairy or not, with brilliant coppery autumn colours; inflorescence an elongated terminal spike 6–220 mm long, flowers reddish, sweetly scented; on rocky hills or rocky banks of streams; 540–2,250 m. Zimbabwe northwards through most of tropical Africa.

**Source.** Dowsett-Lemaire (1985: 388).

Malawi. Nyika Plateau, below N. Kukuru waterfalls, Dowsett-Lemaire, without out linked specimen (herbaria not stated, none at K); between Chisanga Falls and Kaperekezi Gate, 2000, *Salubeni & Mwanyambo* 6831 (MAL).

**Keetia zanzibarica** (Klotzsch) Bridson subsp. corneloiodes (De Wild.) Bridson

Scandent shrub, small tree or liane with glabrous to sparsely hairy young stems; leaves opposite, entire, 50–150 x 20–75 mm, narrowly elliptic to ovate or roundish, entirely hairless, except for hairs on the veins below; flowers white, sweetly-scented; along river-banks, in evergreen riverine forest, sometimes forming thickets. Mozambique, Malawi, Zambia, and D.R.C. The record listed below was identified by Patel as *K. jovisttonantis* (Hiern) Bridson, sometimes to B.C.R. and Sudan.


**Keetia guenzi (Sond.) Bridson**

*Cathunea guenzi* (Sond.; *Electronia hispida* (Benth.) K.Schum.; *Electronia guenzi* (Sond.) Sim

*Chichewa:* mluma, musukandalo, namansengo; *Tonga:* kombeba

Scrambling shrub or climber 3–25 m tall, the pale interpetiolar stipules prominent; leaves opposite, entire, oblong-lanceolate to ovate, 55–135 x 35–60 mm, sparsely hairy above, more densely below; flowers creamy white, in tight axillary clusters; in evergreen forest, thickets, and moist woodland; 800–2,200 m. South Africa (Eastern Cape) to Cameroon and Ethiopia.


Malawi. Nyika National Park, between Chisanga Falls and Kaperekezi Gate, 2000, *Salubeni & Mwanyambo* 6831 (MAL); *Kasyaula and Zovochipolo*.

**Kohautia cocccinea** Royle

Erect annual herb, branched or not, to 450 mm tall; leaves opposite, entire, linear to linear-lanceolate, 12–55 x 1.1–4 mm, margins and lower midrib papillate, lower surface scabrid to glabrous; flowers in leaf axils, red to pink, rarely lilac to white; in grassland and open woodland, also along roads and paths; 500–2,800 m. Zimbabwe northwards to W. Africa, Sudan, and Ethiopia; also in the Arabian Peninsula, Pakistan, and India.


**Lasianthus kilimandscharicus** K.Schum. subsp. *kilimandscharicus*

*Chichewa:* nadala

Shrub or small tree 1.2–7.5 m high, bark smooth, grey; leaves opposite, 90–170 x 20–60 mm, margins entire, glabrous above, sparsely hairy below; flowers few, in compact axillary clusters, white or violet; fruit an intense cobalt blue; in swamp and riverine forest, also in *Widringtonia* forest; 900–2,300 m. Zimbabwe to D.R.C. and Kenya.


**Lelya prostrata** (R.D.Good) W.H.Lewis var. *prostrata* *Lelya osteocarpa* Brenek.

Prostrate herb with several stems up to 100 mm long radiating from a woody rootstock, stems and leaf petioles densely hairy; leaves opposite, 5–15 x 1–10 mm, elliptic to lanceolate, entire, hairy beneath; flowers small, 1–3 in leaf axils; on dry grassy hillsides, open woodland, burnt grassland, in grass tussocks; 1,300–2,250 m. N. Malawi, Zambia, Angola, D.R.C., and Nigeria. A monotypic genus.


**Lelya prostrata** (R.D.Good) W.H.Lewis var. *angustifolia* (Bremek.) W.H.Lewis

Lelya osteocarpa Brenek. var. *angustifolia* Brenek.

As for var. *prostrata*, but with the stems and petioles hairy or not, and the leaves narrowly to very narrowly elliptic, glabrous; mostly in dambos, also
Gardenia ternifolia
subsp. jovis-tonantis
Del. Sandie Burrows

Hedythyrsus thamnoideus
Del. Sandie Burrows

Heinsenia diervilleoides
subsp. diervilleoides
Del. Maureen Church

Hymenodictyon floribundum
Del. Sandie Burrows
Keetia gueinzii
Del. Sandie Burrows

Kohautia coccinea
Del. Sandie Burrows

Lasianthus kilimandscharicus
subsp. kilimandscharicus
Del. Sandie Burrows

Leptactina benguelensis
subsp. pubescens
Del. Sandie Burrows

Lelya prostrata var. prostrata
Del. Sandie Burrows