

FORUM BOTANICUM

Ed. 8 No. 8
Vol. 8 No. 8

Augustus, 1970
August, 1970

NEWS-LETTER OF THE SOUTH AFRICAN ASSOCIATION OF BOTANISTS
NUUSBRIEF VAN DIE SUID-AFRIKAANSE GENOOTSKAP VAN PLANTKUNDIGES

REVIEW OF PHYSIOLOGISTS IN SOUTH AFRICA:-

Particular techniques being used in a project are shown in brackets.

Aalbers, Mnr J., Botanie Dept., Univ. Wes-Kaapland.
Invloed van Boor op Proteïnsintese by 'n aantal plante. (Elektroforese.)

Ashton, Mr P.J., Botany Dept, Rhodes Univ. Distribution of inorganic nutrient elements in pineapple plants. (Atomic absorption.)

Blommaert, Dr K.L.J., N.I.V.V. (1) Vertraagde bot by bladwisselende vrugtebome. (Hormoon en stremstof analyses.) (2) Vegetatiewe vermeerdering van die rooibostee (Aspalathus linearis).

Botha, Prof. P.J., Plantkunde Dept., P.U. vir C.H.O. (1) Die fisiologie van inheemse parasitiese blomplante. (Radio-isotoop- en chromatografietegnieke.) (2) Die bepaling van toeganklike plantvoedingstowwe in die grond. (Potkultuur- en chemiese tegnieke.) (3) Met Mnr S. de Meillon. Die aminosuursamestelling van die eksudasiesap van mielieplante wat deur Striga asiatica aangetas is. (Bepalings geskied met 'n aminosuur-analiseerder.) (4) Met Mnr D.N. Boshoff, Plantkunde Dept., Univ. van Fort Hare. Aminosure, ureum en suikers as voedingstowwe van Achnanthes pseudohungarica. (Geslote kultuurtegnieke.) (5) Met Mnr M.J. Roos, Plantkunde Dept., Univ. van Zoeloeland. Die bepaling van transpirasie by Schinus terebinthifolius onder verskillende omgewingstoestande. (6) Met Mnr J.F. van Graan. Die invloed van onkruidodders op Pachystigma pygmaeum (gousiektebos).

Boshoff, Mnr D.N. sien Botha (4).

Bredell, Dr G.S., Navorsingsinst. vir Sitrus en Subtropiese vrugte. Invloed van verskillende vogpeile in grond op osmotiese konsentrasie van die sitrus-

vrug en invloed op vaste stowwe, sure skilsterkte, granulasie, ens.

Campbell, Mr G.K., Dept Plant Biology, Univ. Natal, Durban. Protein studies in seeds. (Gel Electrophoresis, isoelectric focussing.)

De Bruyn, Prof. J.A., Dept Plantkunde, Univ. Stellenbosch. (1) Die fisiologie van stuifmeelontkieming by Setaria sphacelata. (2) Aspekte van die fisiologiese rol van boor in plante.

De Meillon, Mnr S. sien Botha (3).

Deist, Dr J., N.I.V.V. Invloed van wateroplosbare fosfaat op die toeganklikheid van rotsfosfaat.

De Kock, Mnr G.C., Landbounavorsingsinst. vir die Karoo streek, Middelburg. Ontblaringsfisiologie by lusern. Met Mnr B.A. Lötter. Die effek van NaCl en ander soute op smaaklikheid by Atriplex sp.

Clarke, Mey. B. sien Grobbelaar (3 & 4).

De Lange, Mnr J.H., Navorsingsinst. vir Sitrus en Subtropiese vrugte. (1) Vrugset van die nawel soetlemoen: Studie van bestuiwingsbehoefte en toepassing van resultate op kommersiële skaal. (2) Vrugset van die nawel soetlemoen: Hormoonstudies. (Biologiese en spektrofluometriese bepalinge.) (3) Die kontroliering van suurheid in sitrusvrugte: Invloed van arsenaatbespuitings op verkleuring van Valencia vrugte. (4) Vrugset van die nawel soetlemoen: Studies van die bloeiwyse. (5) Endogene wortelvormingsfaktor(e) in ekstrakte van avokado steggies. (Kafferertjie biologiese toets.)

De Swardt, Dr G.H., Plantkunde Dept, Randse Afr. Univ. Biochemiese en fisiologiese veranderings in piesangvrugweefsel tydens rypwording. (Ensiemskeidingstegnieke en molekulêre skeidings op sephadex kolomme.)

Dini, Mry M., Dept. of Plant Biology, Univ. of Natal, Durban. Physiology of temperature controlled dormancy. (Isotope incorporation & scintillation counting gradient centrifugation.)

Du Preez, Mnr C.M.R., Landbounavorsingsinst. vir die Karoostreek, Middelburg, K.P. Produksie en fenologie van Karoobossies.

Duvenhage, Dr A.J., Plantkunde Dept, P.U. vir C.H.O. Met Prof. P.J. Botha. 'n Biochemiese ondersoek na die verhouding tussen inheemse parasitiese blomplante en

hul gasheerplante. (Bepalings sal hoofsaaklik met outoanaliseerder geskied.)

- Erasmus, Mnr S.P., Dept. Tuinbou, Univ. van Stellenbosch. Die invloed van groeiregulerende stowwe op vrugtebome.
- Gilfillan, Dr T.M., Navorsingsinst. vir Sitrus en Subtropiese vrugte. Extension of normal grapefruit and lemon harvesting seasons with gibberellin spray.
- Glover, Mr J., S.A. Sugar Association Experiment Station, Mount Edgecombe, Natal. (1) Root growth. (Large underground laboratory.) (2) Respiration of fully grown plants. (Large respiration chamber.)
- Grobbelaar, Prof. N., Dept. van Plantfisiologie en -biochemie, Univ. van Pretoria. (1) Fluormetabolisme in plante met spesiale verwysing na gifblaar (Dichapetalum cymosum Engl.) (2) Isolering en identifisering van nuwe aminosure in plante. (3) Met Mev. B. Clarke. Oorsig van die vermoë van peulplante (veral inheemse soorte) om wortelknoppies te vorm. (4) Met Mev. B. Clarke, Mnr J.M. Strauss. Invloed van omgewingsfaktore op knoppiesvorming en simbiotiese stikstofbinding by peulplante. (N-15 en asetileen-etileen metodes.) (5) Met Mev. M.C. van Beijma. Invloed van omgewingsfaktore op die groei van inheemse peulplante wat lyk na belowende weidingsgewasse.
- Groenewald, Mnr E.G., Dept. van Plantfisiologie en -biochemie, Univ. van Pretoria. Met Prof. N. Grobbelaar. Simbiotiese stikstofbinding by saadplante ander as peulplante. (N-15 en asetileen-etileen metodes.)
- Hammes, Mnr P., Dept. Agronomie en Biometrie, Univ. van Pretoria. Die inisiasie en ontwikkeling van knolle by aartappels (Solanum tuberosum).
- Hanekom, Mnr A.N., N.I.V.V. Seisoenopname van ³²P-gemerkte fosfaat deur Protea cynaroides.
- Hattingh, Mnr I.D., Landboukollege en Navorsingsinst., Potchefstroom. (1) Beheer van Solanum eleagnifolium met onkruidodders. (2) Die beheer van Convolvulus arvensis met onkruidodders.
- Holtzhausen, Mnr L.C., Navorsingsinst. vir Sitrus en Subtropiese vrugte. (1) Die fisiologie en fenologie van Citrus sinensis cultivar Valencia met spesiale verwysing na vergroening. (2) Veselsterkte studies by alle sitruscultivars m.b.t. die Warner-Bratzler veselskeurapparaat. (3) 'n Fenologiese en fisiologiese studie van kraakskil by die Mediterranean Sweet,

- Valencia en Washington nawelcultivars van citrus.
- Jacobs, Mnr C.J., Navorsingsinst. vir Sitrus en Subtropiese vrugte. (1) Die kontrolering van suurheid in sitrusvrugte: Metaboliese remstowwe wat die suurinhoud van sitrusvrugte mag beïnvloed. (2) Effeck van vrugsamestelling en ander eksterne faktore op respiratoriese aktiwiteit van Fuerte avokado's.
- Jones, Mr D.T., Dept. of Plant Biology, Univ. of Natal, Durban. Wound regeneration. (Light and electron microscopy.)
- Jooste, Mnr J.H., Dept. Plantkunde, Univ. Stellenbosch. Opname van spoor elemente deur wortels en blare van plante. (Radiometriese analise van opnamepatrone.)
- Kraft, Mnr J.J., Landbounavorsingsinst., Potchefstroom. (1) Korrelasie tussen transpirasie, panverdamping (Ee) en droë stofproduksie. (2) Invloed van fosfaat soort op opneembaarheid en oliegehalte van sonneblom.
- Krüger, Mnr G.H.J., Landbounavorsingsinst., Potchefstroom. Invloed van stikstofvoeding op die waterverhoudings en droogtebestandheid van mielies.
- Lötter, Mnr B.A. sien De Kock.
- Marais, Mr J.N., Tobacco Research Inst., Private Bag, Rustenburg. Internal water balance of the tobacco plant. (Beta-ray thickness gauging.)
- Margot, Mr P., Wattle Research Inst. Tissue culture of wattle callus.
- Marr, Mr G., Botany Dept., Rhodes Univ. Factors affecting the absorption of nutrients in the pineapple with special reference to nematodes. (Atomic absorption.)
- Mitchell, Mnr R.C., Dept. of Plant Biology, Univ. of Natal, Durban. Ribosome studies in light-controlled dormancy. (Isotope incorporation & scintillation counting density gradient centrifugation.)
- Pienaar, Mr R.N., Dept. of Plant Biology, Univ. of Natal, Durban. Physiology of body scale production in unicellular algae. (Electron microscopy. Autoradiography. Chromatography.)
- Pretorius, Mnr W., Navorsingsinst. vir Sitrus en Subtropiese vrugte. Invloed van avokado worteluitskeidings op groei van Phytophthora cinnamomi.
- Roos, Mnr M.J. sien Botha (5).
- Rostron, Mr H., S.A. Sugar Association Experiment

- Station, Mount Edgecombe, Natal. Crop growth ripening.
- Rousseau, Mnr G.G., N.I.V.V. Opname en metabolisme van kalsium by die appelvrug, m.b.t. die voorkoms van bitterpit.
- Small, Prof. J.G.C., Vakkomitee Botanie, Univ. van Port Elizabeth. Invloed van omgewingstoestande op peulplant-rhizobium simbiose. (Gas-chromatografie.)
- Strauss, Mnr J.M. sien Grobbelaar (4).
- Strydom, Mnr D.K., Dept. Tuinbou, Univ. van Stellenbosch. Fisiologiese aspekte van die winterrus van knoppe.
- Tormann, Dr H., N.I.V.V. Gebruik van transpirasiebeperkende middels op sagtevrugte en tafeldruiwe.
- Van Beijma, Mev. M.C. sien Grobbelaar (5).
- Van Graan, Mnr J.F. sien Botha (6).
- Venter, Mej. R.M., N.I.V.V. Studies oor die rypwording van pruime.
- Villiers, Prof. T.A., Dept. of Plant Biology, Univ. of Natal, Durban. (1) General physiology of seed dormancy. (General biochemical techniques, electron microscopy.) (2) Control of protein synthesis in embryogenesis. (Autoradiography, density gradient ultracentrifugation.)
- Watts, Mnr J.E., Dept. Plantkunde, Univ. Stellenbosch. Invloed van Kalium op die fisiologie van die grond-boonplant. (Gaschromatografie.)
- Zeijlmaker, Dr F., Wattle Research Inst. Biosynthesis of tannins in Black Wattle. (Chromatography, Spectrophotometric determinations, Isotopes.)
-
- Bornman, Prof. C.H., Bews Botanical Laboratories, Univ. of Natal, Pietermaritzburg. (1) Physiological, anatomical and histochemical effects of plant growth regulators on the process of abscission. (Electron microscopy, Liquid scintillation, Bioassays.) (2) Physiological, morphological and histochemical effects of plant growth regulators on cultured tissues. (Electron microscopy, Liquid scintillation, Microsurgery.) (3) Desiccation resistance in desert species. (Transmission and scanning electron microscopy, Infrared gas analysis.)
- Botha, Mr C.E.J., Bews Botanical Laboratories, Univ. of Natal, Pietermaritzburg. Movement and metabolism of labelled plant growth regulators in plant tissue

(*Iboza riparia*). (Liquid scintillation, Microautoradiography, Spectrophotometry.)

Button, Mr J., Bews Botanical Laboratories, Univ. of Natal, Pietermaritzburg. In vitro culture of nucellar embryos and apical buds of monoembryonic Citrus cultivars. (Microsurgery, Freeze drying, Electron microscopy.)

Brown, Mr N.A.C., Bews Botanical Laboratories, Univ. of Natal, Pietermaritzburg. Seed dormancy in Paspalum dilitatum.

Gilliland, Mrs M.G., Bews Botanical Laboratories, Univ. of Natal, Pietermaritzburg. Abscission in Hibiscus rosa-sinensis. (Electron microscopy, Quantitative histochemistry.)

Van Staden, Dr J. & Mr N.A.C. Brown, Bews Botanical Laboratories, Univ. of Natal, Pietermaritzburg. Seed dormancy in Proteaceae.

It would be appreciated if any omissions or errors in this survey could be brought to the Editors' attention.

BOLUS HERBARIUM, UNIVERSITY OF CAPE TOWN: (REPORT, 1970):-

General

The task of sorting out the fungal collection bequeathed by the late Miss Edith Stephens was completed by Miss Grace Waterhouse of the Commonwealth Mycological Institute. This work is to be followed up by a specialist agaricologist, Dr D.A. Reid of Kew, during 1970. Some progress was also made by the Curator, Prof. E.A. Schelpe, in identifying and incorporating some of the backlog of unidentified mosses. In September he attended the 6th World Orchid Conference in Sydney, at which he read an invited paper; after the conference he participated in a week-long botanical excursion to New Guinea and visited colleagues at Melbourne and Perth on the return journey.

The Assistant Curator, Dr A.V. Hall, attended the 11th International Botanical Congress in Seattle, at which he contributed a paper and subsequently participated in a symposium on mathematical and theoretical aspects of numerical taxonomy at Cambridge.

The first issue of the "Contributions from the Bolus Herbarium" was published at the end of the year, containing revisions of seven families of tropical African ferns by the Curator. A second issue is planned

for 1970.

Research by staff

The Curator completed the proof-reading of his treatment of the ferns and fern allies for the "Flora Zambesiaca" as well as the reviews of tropical African ferns already referred to. The work on the ferns of the Lake Bangweulu-Luapula River Basin was delayed by the arrival of further collections from that area.

The Assistant Curator has continued his taxonomic work on the genus Satyrium and his research into numerical methods and classification.

Miss Esterhuysen continued her specialist collecting of Restionaceae and of the high mountain flora of the south-western Cape Province.

Postgraduate supervision

The Curator supervised the following Ph.D. candidates:
1) Mr O. Kerfoot, Senior Lecturer at the University of the Witwatersrand, working on the taxonomy, autecology and phytogeography of the African Cupressaceae.

2) Mr J. Rourke of the National Botanic Gardens, Kirstenbosch, working on the genus Leucospermum.

3) Mr P. Goldblatt, Junior Lecturer in Botany, University of Cape Town, working on the cytotaxonomy of the South African Iridaceae.

4) Mr H. Tölken, Junior Lecturer in Botany, University of Cape Town, working on the taxonomy of the South African species of Crassula.

The Assistant Curator is supervising the following M.Sc. candidate:
Mr C. Boucher, Botanical Research Unit, Stellenbosch, working on the plant communities of the Kogelberg Reserve.

Mr H.C. Taylor, supervised by the Curator and the Assistant Curator, was awarded the M.Sc. degree with distinction for his thesis "The plant communities of the Cape Point Nature Reserve".

Herbarium collections

During 1969 a total of 969 specimens, comprising 419 flowering plants, 186 ferns and 356 bryophytes, were added to the Herbarium.

TERCENTENARY CELEBRATIONS, ROYAL BOTANIC GARDENS,
EDINBURGH:- These celebrations were held in Edinburgh

during the week 1-7th June. Numerous guests were present from all over the world. The first two days were devoted to the main celebrations, which included the official opening of the new plant exhibition hall. During the rest of the week guests could either attend a symposium on "Plant life in S.W. Asia" or join an organised study tour of Scottish gardens and arboreta. Professor H.B. Rycroft, who presented a paper at the symposium, represented Kirstenbosch and Dr D.J.B. Killick, the Botanical Research Institute, Pretoria.

KEW:- Prof. Rycroft paid a very short visit to the herbarium on 9th June on his way back from the Edinburgh celebrations.

S.A.A.B. (SOUTH-WESTERN CAPE SECTION) FUNGUS FORAY:-

A fungus foray was arranged for University of Cape Town and Stellenbosch students at Jonker's Hoek on Saturday, 13th June, and was led by Dr Derek Reid of the Royal Botanic Gardens, Kew. Approximately 25 people attended, including Prof. P.G. Jordaan (Stellenbosch) and Prof. W.J. Lütjeharms (Cape Town). After a week of typical Cape winter rains they were most fortunate in having fine, sunny weather.

The most interesting collections from a gastronomic point of view were large numbers of pine rings (Lactarius deliciosus) and three young fruit bodies of cep (Boletus edulis) which are either rarely found at the moment or their presence seems to be a guarded secret among collectors. Possibly the largest mushroom ever seen was collected (the cap was approximately 3/4 metre in diameter). This was a specimen of Pholliota spectabilis, which has now been renamed as Gymnopilus junonius.

The following is a preliminary list of species which was compiled by Dr D.T. Mitchell, Dr D. Reid and Dr G. Cone, and further details of new records and new species will be published later.

HOMOBASIDIOMYCETES

AGARICALES

<u>Agaricus</u> sp.	<u>Coprinus micaceus</u>
<u>Amanita muscaria</u>	<u>Favolaschia thwaitesii</u>
<u>pantherina</u>	<u>Galerina</u> sp.
<u>rubescens</u>	<u>Gymnopilus junonius</u>
<u>Armillaria mellea</u>	<u>penetrans</u>
<u>Coprinus comatus</u>	<u>Hypholoma fasciculare</u>

Inocybe eutheles
sp.

Laccaria laccata

Lactarius deliciosus

Mycena galericulata
alcalina

Paxillus panuoides

Russula capensis
sardonia

Schizophyllum commune

Tubaria furfuracea

Boletus edulis
bovinus

APHYLLOPHORALES

Bjerkandera adusta

Coniophora sp.

Coriolus versicolor

Daedalea quercina

Ganoderma sp.

Phellinus scruposus

Pycnoporus sanguineus

Serpula himantioides

Stereum hirsutum

HETEROBASIDIOMYCETES

TREMELLALES

Calocera cornea

Dacryomyces sp.

Exidia duthiei

S.A.A.B.:-

Council meeting

A meeting of Council was held on 30 June at Cape Town University. It was attended by:

Prof. P.J. Botha (Chairman), Dr J.A. Coetzee (for Prof. E. van Zinderen Bakker), Dr B. de Winter, Prof. N. Grobbelaar, Dr A. Jacot Guillarmod, Mr J.P. Jessop, Mr E. G.H. Oliver, Dr J.H. Ross, Prof. H.B. Rycroft, Prof. E.A. Schelpe, Prof. H.P. van der Schijff, Mr J.J.A. van der Walt (for Prof. P.G. Jordaan), Mrs M. Vogts (for Prof. J. M.P. Geerthsen).

Among matters dealt with were the following: Progress with the Index Herbariorum of South African herbaria was reported. Accounts of 27 herbaria had been received, and it was agreed that a preliminary duplicated copy of the index should be circulated at the end of August to herbaria. In this way herbaria might be encouraged to provide additional information.

Reports on other projects are included in the annual report circulated to members in June.

The new Executive of S.A.A.B. for 1970/1 is:
President: Prof. P.J. Botha; Vice Presidents: Prof. H.P. van der Schijff and Prof. E. van Zinderen Bakker;
Outgoing President: Dr L.E. Codd; Secretary/Treasurer: not finalised.

A.G.M.

The A.G.M. of the S.A.A.B. was held on 1st July at Cape Town University.

Amendments to the constitution. Only the amendments proposed in section A of the proposals, circulated beforehand, were accepted. Decision on the remainder were held over for the next A.G.M.

Symposium on Botany in South African Universities. It was agreed that a date for this symposium should be found, despite the difficulties encountered on the previous attempts. It may be included in the 1971 S2A3 congress. A proposal that the S.A.A.B. organise a symposium at the same congress on "Indigenous vegetation and wild life preservation" was also adopted.

LIMNOLOGICAL SOCIETY OF SOUTHERN AFRICA CONGRESS:-

Among the papers presented at the Congress of the Limnological Society, held at Stellenbosch between the 6th and 9th July, there were three of general botanical interest.

Dr A. Jacot Guillarmod, in her paper entitled "Droughts, dams and dongas", described the effects of current agricultural practices in Lesotho on the headwaters of the Orange, Caledon and Krei rivers. Mountain bogs and sponges are being destroyed or altered, and lowland reedbeds drained. With the resultant erosion the silt loads of streams and rivers have increased markedly, and this poses a very real and immediate problem with respect to silting in the dams of the Orange River Project.

A paper on studies of primary production in phytoplankton by E.M. van Zinderen Bakker, P.C. Keulder and J.U. Grobbelaar, who outlined progress in these investigations which began at the University of the Orange Free State in 1965 with in vitro methods including cell counts, chlorophyll determinations and the use of $G14$ tracers; in 1968 in situ determinations were begun. Mr J.V. Grobbelaar gave additional explanatory detail concerning techniques developed for continuous determinations of the productivity of cultures of Scenedesmus obliquus.

Miss E. McDonald, talking about vegetation in an Eastern Cape estuary, described some of the results obtained to date in investigations of the salt marshes near the mouth of the Kowie River. This work is to be completed during the year.

PROF. W.E. ISAAC:-

Professor and Mrs Isaac visited South Africa in the second half of July. Professor Isaac has retired from his post in Kenya and they are going to settle in Australia. Among the places they visited in South Africa are Rhodes and Cape Town Universities of whose Botany Departments he has been Head.

LITERATURE:-

- BAYER, A.W. 1970
Plant ecology in the service of man in Southern Africa.
S. Afr. J. Sci. 66 : 71-77.
- DAHLGREN, R. 1970
Wiborgia apterophora R.Dahlgr., a new species of
Leguminosae from the Cape Province.
Bot. Notiser. 123 : 112-114.
- DE WINTER, B. 1970
Plant taxonomy in South Africa: past, present and future.
S. Afr. J. Sci. 66 : 65-70.
- COETZEE, J.A. & VAN ZINDEREN BAKKER, E.M. 1970
Palaeoecological problems of the Quarternary of Africa.
S. Afr. J. Sci. 66 : 78-84.
- FALCONER, A.C. & MARSHALL, B.E. 1970
Limnological investigations on Lake McIlwaine.
Suppl. to Newsl. Limnol. Soc. S. Afr. 13 : 66-69.
- GEERTHSEN, J.M.P. & VAN SCHAIK, N. 1970
The contribution of plant genetics to science and the
advancement of man in Southern Africa.
S. Afr. J. Sci. 66 : 89-92.
- HEINECKEN, T. 1970
Brief historical background of the Goukamma Nature
Reserve (1907-1961).
Dept. Nat. Conservn investigational Rep. No. 15.
- GIESS, W. 1970
Eine neue Aloe aus der Namib.
Mitt. Bot. München 8 : 123-126.
- GIESS, W. Dated 1969; publ. ?1970
Welwischia mirabilis Hook. fil.
Dinteria 3 : 3-55.
- MORRIS, BRIAN 1970
The zonal vegetation of Kilimanjaro.
Afr. Wild Life 24 : 156-165.

- NORDENSTAM, BERTIL 1970
Studies in South African Liliaceae. III. The genus
Rhadamanthus.
Bot. Notiser. 123 : 155-182.
- OETKEN, HELMUT 1970
Crassula mesembryanthemopsis.
Kakteen und andere Sukkulenten 21 : 97.
- RAWE, ROLF 1970
Anacampseros L.
Bull. Afr. Succ. Pl. Soc. 5 : 22-23.
- RYCROFT, H.B. 1970
Botanic gardens and ornamental plants.
S. Afr. J. Sci. 66 : 85-88.
- VAN DER MERWE, C.V. 1970
A short description of the Goukamma Nature Reserve.
Dept. Nat. Conservn investigational Rep. No. 16.
- WILD, H. 1969
The genus Nidorella Cass.
Bol. Soc. Brot. 43 : 209-246.
- WILD, H. 1969
The species of Conyza L. with ligulate or lobed ray
florets in Africa, Madagascar and the Cape Verde
Islands.
Bol. Soc. Brot. 43 : 247-277.
- DE FILIPPS, R. 1969
Ximenia americana (Olacaceae) in Angola and South West
Africa.
Bol. Soc. Brot. 43 : 193-200.
- VAN ZINDEREN BAKKER, E.M. 1970
Botany in South Africa.
S. Afr. J. Sci. 66 : 93-100.
- VAN ZINDEREN BAKKER, E.M., KEULDER, P.C. &
GROBBELAAR, J.U. 1970
Limnological studies in the Orange Free State.
Suppl. to Newsl. Limnol. Soc. S. Afr. 13 : 34.
-
- KORRESPONDENSIE/CORRESPONDENCE: J.P. Jessop,
Dept. Botany & Microbiology,
Rhodes University, Grahamstown.
- REDAKSIE/EDITORS: E.P. du Plessis, Kirstenbosch
E.G.H. Oliver, Botanical Res. Inst.
J.G.C. Small, Univ. Port Elizabeth