

SABONET

NEWS

Newsletter of the Southern African Botanical Diversity Network

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Introduction

This is the first issue of *Sabonet News*, the newsletter of the *Southern African Botanical Diversity Network (SABONET)* project, the aim of which is to inform southern African botanists of the activities and developments within this regional project. The newsletter is compiled at the Project Coordinator's office in the National Herbarium, Pretoria, South Africa. Contributions and suggestions from botanists around southern Africa (or elsewhere) for this newsletter would be very welcome, and can be faxed to Christopher Willis at +27 12 8043211. The present plan is to issue *Sabonet News* three times a year, with mailing done on the 30th April, 30th August and 15th December. Depending on the amount of material that is received for publication, this could in future change to a quarterly publication. □

The long walk to GEF

As this is the first issue of the newsletter associated with the SABONET project, the editor thought it would be useful to provide a short historical calendar of the project, which is partially summarised from Prof. Brian Huntley's

article submitted to the Global Environment Facility (GEF) entitled "The Long Walk to GEF" (appropriately linked to Nelson Mandela's autobiography "Long Walk to Freedom").

February 1990. Nelson Mandela released from prison. First initiatives taken to establish a regional network in southern Africa (Maputo, Mozambique)

April 1991. Meeting in Zomba (Malawi)

March 1993. Meeting in Bulawayo (Zimbabwe)

September 1993. Southern African Botanical Diversity Conference in Cape Town (South Africa) (attended by 120 professionals from 14 countries) with associated workshops

October 1993. Pre-proposal to GEF and United Nations Development Programme (UNDP)

1994. Proceedings of 1993 conference published as *STRELITZIA 1*.

September 1994. GEF/UNDP approved project proposal for initial development

September 1994. Revised proposal sent to UNDP, who sent it out for technical review

March 1995. Revised "Project Brief"

prepared for GEFOP, but held back because South Africa had not yet ratified the Convention on Biological Diversity (CBD)

September 1995. Approval of funds from the United States Agency for International Development (USAID) via IUCN's Regional Office for Southern Africa (IUCN ROSA), based in Harare, Zimbabwe, for a project entitled "Regional Capacity Building Network for Southern African Botanical Diversity" which falls under the larger "Regional Networking and Capacity Building Initiative

for Southern Africa" programme, abbreviated as NETCAB.

2 November 1995. South Africa ratifies the Convention on Biological Diversity (see later)

March 1996. First meeting of the SABONET Steering Committee, Pretoria, South Africa

April 1996. GEF Council approves project proposal

June 1996. Project Coordinator takes office at National Herbarium, Pretoria

22-26 July 1996. Specimen Database Workshop and Training Course Workshop, National Herbarium, Pretoria, South Africa

July 1996. Preparatory Assistance Document approved by the GEF (provides bridging finance while the Project Document is being completed) □

SABONET Project Objectives

Following the project proposal to GEF, the primary goal of the project is *to develop a strong core of professional botanists, taxonomists, horticulturists and plant diversity specialists within the ten countries of southern Africa, competent to inventory, monitor, evaluate and conserve the botanical diversity of the region in the face of specific development challenges, and to respond to the technical and scientific needs of the Convention on Biological Diversity.*

The project area includes all ten southern African countries (Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe) with a total area of 5.92 million km², and contains over 10% of the world's flora (over 30,000 taxa of flowering plants and ferns).

The overriding philosophy of the project is "learning by doing", and as such will be very involved in the botanical training of personnel from the various southern African countries. There is a wealth of botanical knowledge and expertise in southern Africa, and it is a major task of this project to share this expertise amongst the various countries, thereby providing a south/south solution to

the problem of continued dependence on the intellectual resources of the north. This doesn't mean that the links that have been built up over the years with organisations and individuals from the northern hemisphere will be broken. On the contrary, they should be maintained and strengthened. We must, however, start to build human and institutional capacity in botany and plant systematics and conservation from within the region. This requires cooperation, collaboration and effective communication between botanists in the region. As a mouthpiece for botanical diversity in southern Africa, that is exactly what this newsletter hopes to achieve.

At the end of the day, the bottom line is that our region's rich botanical diversity is conserved for both present and future generations. With the international funding that we presently have, and should be receiving by the end of this year, we have the unique opportunity to make significant and lasting in-roads into improving both the human and institutional capacity in botany in southern Africa. This is an ambitious and necessary project that will only be successful if we work together. □

Convention on Biological Diversity

List of dates on which the various southern African countries ratified the Convention on Biological Diversity (CBD):

Botswana	12 October 1995
Lesotho	10 January 1995
Malawi	2 February 1994
Mozambique	25 August 1995
South Africa	2 November 1995
Swaziland	9 November 1994
Zambia	28 May 1993
Zimbabwe	11 November 1994

Angola and Namibia have not yet ratified the CBD.

SOURCE: IUCN Newsletter: Environmental LAW Programme (April-June 1996) □

Anticipated Project Outputs

Numerous outputs are expected from this project. Amongst others, these broadly include

Checklists: regional and national floras, species of economic importance, IUCN and CITES species per country

Distribution data: species distribution maps, maps of vegetation types, relational databases using Geographical Information Systems (GIS)

Biodiversity evaluations: conservation status of vegetation types/biomes, identification of botanical diversity "hotspots" and centres of endemism, identification of under-surveyed/poorly known areas or taxa, identification of priorities for the establishment of *ex-situ* living collections

Human resource inventories within the region: taxonomic expertise, ecological expertise, indigenous plant horticultural expertise

Infrastructure inventories within the region: herbarium facilities, collections, botanical gardens

Collaborative actions: formal establishment of a Southern African Botanical Diversity Network, newsletter, joint field surveys and collecting expeditions, training courses, workshops, regional publications and the development of a regional botanical gardens conservation strategy

Trained personnel: personnel trained through the project will provide a core of local expertise in biodiversity assessment and management. □

Red Data Lists

Craig Hilton-Taylor of the National Botanical Institute, South Africa, recently published the *Red Data List of Southern African Plants*. The distributional area of plant taxa included in this publication incorporated the countries of South Africa, Namibia, Swaziland, Botswana and Lesotho. It is anticipated that through the SABONET project, this list will be expanded to include all of the ten countries in southern Africa. This significant publication can be purchased by writing to:

Martha Bopape
Bookshop
National Botanical Institute
Private Bag X101
Pretoria 0001
SOUTH AFRICA □

Southern Africa's oldest herbaria

The oldest herbarium in southern Africa is the South African Museum Herbarium (SAM), founded in 1855. The entire collection has, however, now been deposited at the Compton Herbarium (NBG) (founded in 1933) at Kirstenbosch, Cape Town, where it is kept as a separate entity. The second oldest herbarium in southern Africa is the Selmar Schonland Herbarium (GRA), formerly the Grahamstown Herbarium, in Grahamstown, founded in 1860. After GRA comes the Bolus Herbarium (BOL), now at the University of Cape Town, founded in 1865.

According to Index Herbariorum (8th edition) (1990), the world's oldest herbarium (KASSEL) is housed at the Naturkundemuseum, Kassel, Germany, and was founded in 1569 with approximately 30 000 specimens. □

SABONET Steering Committee

The first SABONET Steering Committee (SSC) meeting was held at the National Herbarium, Pretoria from 5-6 March 1996. Representatives from eight of the 10 southern African countries attended, with Botswana and Malawi unfortunately not present. With Botswana presently not having a Curator for the National Herbarium (GAB) in Gaborone, the representative from this country still needs to be identified. Mrs Queen Turner has recently been appointed as the Assistant Curator at the National Herbarium in Botswana.

Representatives from the various countries that attended the first SSC meeting were as follows:

ANGOLA: Dr E Matos
LESOTHO: Prof. C R Nagendran
MOZAMBIQUE: Ms S Izidine
(for Mr Calane da Silva)
NAMIBIA: Ms C Mannheimer
(for Ms G L Maggs)
SOUTH AFRICA: Prof. B J Huntley,
Ms M Koekemoer and Dr G F Smith
SWAZILAND: Mr G M Dlamini
ZAMBIA: Dr P Phiri
ZIMBABWE: Ms N Nobanda □

Southern African Country Visits

The Project Coordinator will be visiting all the southern African countries in the second half of the year. Dr GF Smith (GFS) and the Project Coordinator visited Ms Gillian Maggs, Officer-in-Charge of the National Herbarium of Namibia, and her enthusiastic team of botanists in Windhoek from 3-5 July, 1996. The same team visited Gideon Dlamini, Curator of the National Herbarium in Swaziland at Malkerns Research Station, Malkerns from 8-10 July, 1996. The National Herbarium and Botanic Gardens of Malawi were visited by Prof. BJ Huntley (BJH). Dr GF Smith and Christopher Willis (CKW) from 16-18 July, 1996. From 30 July to 1 August, the attention was focused on Botswana, where the same team met with representatives from the National Herbarium, UNDP, IUCN, National Conservation Strategy (NCS) Agency, Okavango Research Centre (who are starting the region's youngest herbarium, the Peter Smith Herbarium, in Maun), the University of Botswana Herbarium and Sebele Agricultural Herbarium in Gaborone. Meetings were held in Zimbabwe during a visit by BJH, GFS and CKW from 14-16 August with members of the following institutions: National Herbarium and Botanic Gardens, IUCN ROSA, University of Zimbabwe (UZ), Ministry of Agriculture and the Department of Natural Resources. □

Country Working Groups

In order to facilitate communication between the Project Coordinator's office and the botanical role players in the various southern African countries, working groups are to be established in each country. The composition of the working group will obviously differ from one country to the next, as organisations differ, but in all cases will be focused on the needs and requirements of the national and/or regional/university herbaria and associated botanic gardens within the country. The UNDP and the IUCN, where available, will also be represented on the working group. Should similar such working groups exist (such as the Biodiversity Working Group in Swaziland) in the country, a new group will not be established, but the SABONET project added to the agenda of the existing working group, provided all the role players are represented. In some cases it might be necessary for certain key organisations to be added to the existing working groups.

Institutions and members represented in the working groups of the 10 southern African countries will appear in the December issue of *Sabonet News*. □

Southern African Herbarium Working Group

The Southern African Herbarium Working Group's (SAHWG) annual meeting was hosted by the Natal Herbarium (NH) (Ms Rosemary Williams) at the Durban Botanic Gardens, South Africa from 7-9 June, 1996. Southern African countries represented at the meeting included Botswana, Malawi, Namibia, South Africa and Swaziland. The herbarium and associated committee elected for the new term of office was the Selmar Schonland Herbarium (GRA) under the curatorship of Mr Peter Phillipson.

Information related to the activities and membership of the SAHWG can be obtained from Mr Peter Phillipson at Selmar Schonland Herbarium, P O Box 101, Grahamstown, 6140, South Africa.
Tel: +27 461 22638, Fax: +27 461 25524.
E-mail: bopp@rrobot.ru.ac.za

The SAHWG has compiled an Herbarium Questionnaire that has been sent out to the various herbaria of southern Africa. If your herbarium has not received this questionnaire to complete, please contact the SABONET Project Coordinator's

Write to Peter Phillipson directly to obtain a copy. If you have received a questionnaire and not yet returned it, please complete it as soon as possible and send it to Peter Phillipson so it can be entered into the database. It is not essential that all the questions in the questionnaire are answered - some may be inapplicable to your particular herbarium. Remember that a database is only as good as the data contained within it, so the more herbaria represented in the herbarium database, the more comprehensive and representative it will be for the region.

The SAHWG provides an excellent forum for botanists associated with herbaria to come together and share knowledge and experiences. A similar type of forum needs to be established for botanical gardens in southern Africa. □

Specimen Database Workshop

A Specimen Database Workshop, attended by members of several southern African herbaria, was hosted by SABONET at the National Herbarium, Pretoria, South Africa, from 22-23 July, 1996. This workshop, technical in nature, specifically addressed aspects of the Specimen Database which will be used to computerise most, if not all, of the national herbaria in southern Africa. □



▲ Participants who attended the Specimen Database Workshop at the National Herbarium, Pretoria. Standing (left to right): PB Phillipson, TH Arnold, R Williams, A I Yusuf, GF Smith, E Veenendaal, CK Willis. Seated (left to right): ETH Oliver, K Balkwill, R Kubirske, M Koekemoer. Absent: BC de Wet.

Training Course Workshop

During the same week as the Specimen Database Workshop, a Training Course Workshop, hosted by SABONET, was held at the National Herbarium, Pretoria, South Africa from 24-26 July, 1996.

Attended by herbarium staff members from all ten southern African countries, the workshop was divided into two components. The first part of the workshop consisted of presentations by each participant on their particular herbarium. The papers that were presented at this workshop will be published in a new *Sabonet Report Series* later this year. The second half of the workshop was devoted to the finalisation of the content of the November training course for SABONET trainees to be held at the National Herbarium, Pretoria, South Africa.

The course will include, amongst others, aspects such as basic herbarium management, botanical nomenclature, keys to families, identification using keys, data capture and database management, basic principles of plant conservation, indicator species and flower photography.



▲ Participants of the Training Course Workshop. Countries represented included: Angola, Botswana, Kenya, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia, Zimbabwe.

Copies of the proceedings from both of the above workshops can be requested from the editor. □

SABONET Logo

A logo for the SABONET project is currently being designed, and should be ready for presentation to the SABONET Steering Committee (SSC) for comment by the second SSC meeting in Cape Town during September. Should the logo be approved by the SSC, it will appear on the next and subsequent issues of *Sabonet News*. □

OBITUARY

Leslie Charles Leach, 1909-1996

Leslie ("Larry") Charles Leach was born at Southend-on-Sea in Essex, England on 18 November 1909. He started work as an electrical engineer in Rhodesia (Zimbabwe) in 1938. Larry's interest in succulents started in the early 1950's. After he sold his business in 1956 he started collecting plant material in earnest.

Most of his plant collecting expeditions were self-financed and he concentrated on trying to see as many succulent *Euphorbia* and *Stapeliaceae* at their type localities as possible. These collecting trips took him throughout South Africa, Namibia, Botswana, Zimbabwe, Zambia, Malawi, Mozambique, Tanzania and Kenya.

From 1972-1981 Larry worked as an Honorary Botanist on the staff of the Southern Rhodesia Government Herbarium (SRGH) now the Zimbabwe National Herbarium and Botanic Garden. He emigrated to South Africa during 1981 and was employed at the National Botanic Garden at Worcester from 1982-1989. Whilst working here he concentrated mostly on rounding off his revisions of the succulent *Stapeliaceae* of southern Africa, publishing it in the Taxonomic Series supplementary to *Excelsa*. Four volumes appeared between 1978 and 1988.

From 1990 till the time of his death on 18 July 1996 Larry worked as an Honorary Research Fellow in the Department of Botany, University of the North, Pietersburg, South Africa.

Larry discovered and described four genera and 143 species and infraspecific taxa in the *Stapeliaceae*, *Euphorbieae* and the genus *Aloe*.

Larry Leach is commemorated in the following taxa: *Leachiella* Plowes, *Cheilanthes leachii* (Schelpe) Schelpe, *Aloe leachii* Reynolds, *Eulophia leachii* Greatrex

ex Hall, *Crassula leachii* R. Fernandes, *Echidnopsis leachii* Lavranos, *Huernia leachii* Lavranos and *Dombeya leachii* Wild.



Larry Leach (1909-1996)

Photo: Botanical Exploration of Southern Africa (Gunn & Codd, 1981)

Larry received the following awards:

- 1968 - Harry Bolus Medal from the Botanical Society of South Africa
- 1977 - Gold Medal of the Rhodesian Scientific Association
- 1981 - Certificate of Merit of the South African Association of Botanists (SAAB)
- 1990 - Golden Cactus Award of the International Organisation for Succulent Plant Study

Larry Leach was the author of 95 papers and co-author of 5 papers in various South African and overseas journals.

At the time of his death he was working towards the completion of the succulent *Euphorbieae* for *Flora Zambeziaca*. Sadly he passed away before finishing it. □

Fanie Venter
Former Curator
University of the North Herbarium



SOUTH AFRICA'S "BIG FIVE"

According to GW Reynolds in his book "The Aloes of South Africa" (1950), South Africa's "Big Five" botanists are Harry Bolus (1864-1911), Peter MacOwan (1830-1909), Rudolph Marloth (1855-1931), Selmar Schonland (1860-1940) and John Medley-Wood (1827-1915).

Who are the "Big Five" botanists, based purely on the number of herbarium specimens collected, for each country in southern Africa? If you have access to this information for your country, please inform the editor so it can be published in future editions of Sabonet News.

FORTHCOMING EVENTS

Second Steering Committee Meeting

Kirstenbosch, Cape Town, South Africa.
19-20 September, 1996. This meeting will coincide with the opening of the newly developed National Botanical Institute's *Kirstenbosch Conservatory* on Sunday 21 September 1996.

The Kirstenbosch Conservatory is made up of a large main hall and four separate corner houses on varying levels. The main hall or **Arid House** will be landscaped according to ecological regions and will feature succulents from the Richtersveld, Kaokoland, Eastern Cape, Karoo, Kwazulu-Natal and Namaqualand. The centrepiece of the hall is a giant, approximately 120 year-old, baobab *Adansonia digitata* brought by truck from the De Beers Venetia diamond mine west of Messina in South Africa's Northern Province.

The four adjoining corner houses will feature collections of ferns, valuable and rare stone plants, bulbs and high altitude plants. The **Fern House** will be landscaped to resemble a subtropical forest floor habitat and will include *Plectranthus* and *Streptocarpus* as well as fallen logs, moss and lichens. The **Bulb House** will feature changing seasonal

displays of over 500 bulb species. The **Mountain House** will house plants which occur above 1000 m in altitude on the slopes and peaks of southern African mountains from the alpine flora of the Drakensberg to Cape mountain fynbos. The **Stone Plant House** will pay special attention to small and rare succulents and will be landscaped according to geographic regions using natural rock.

The conservatory has been built from funds raised by the Kirstenbosch branch of the Botanical Society of South Africa, which include a major donation from the Anglo American and De Beers Chairman's Fund. □

Nicola Coningsby,
NBI, Kirstenbosch

November Training Course

During the month of November, a training course on herbarium management, data capture and database management will be presented by various staff members of the National Herbarium, Pretoria, and other institutions, to young botanists from various herbaria around southern Africa. The students will be accommodated in the recently renovated "Velcich House", a 12-bedroom house on the grounds of the National Botanic Garden, Pretoria, South Africa. This will be the first of many training courses that will be offered through the SABONET project, and is essential if we are to develop human capacity within the region. □

BG-Base: Software for Botanical Gardens

During September 1996, Dr Kerry Walter of the Royal Botanic Garden, Edinburgh, will be visiting the National Botanical Institute in South Africa. Kerry Walter, together with Michael J. O'Neal of the Holden Arboretum, USA, has developed a continually expanding and evolving database management application called *BG-BASE* specifically to meet the special documentation needs of botanic gardens and related institutions.

Built using the *Advanced Revelation* database management system, *BG-BASE* has several

modules, each linking with the other using shared fields/files and a common user interface to create a seamless data management environment. Some of the modules are *Living Collections*, *Conservation*, *Images*, *Propagations*, *Membership/Development* and *Education*. Additional modules are under development or almost complete.

For the existing and proposed botanic gardens in southern Africa, this database could provide the key to successfully managing the existing data. The development of botanic gardens in southern Africa is one of the facets of the SABONET project, and this database could provide a useful technical component to their management. Some of the expected outputs of the SABONET project in relation to botanic gardens include

- (a) an infrastructure inventory for botanic gardens within the region,
- (b) the development of a regional botanical gardens conservation strategy, based on the Botanic Gardens Conservation Strategy of 1989, and
- (c) the training of personnel in the maintenance of *ex-situ* living collections of indigenous plants.

Dr Kerry Walter will be in South Africa from 7-14 September 1996. Additional information relating to his visit can be obtained from the editor. □

Have we got it right?

To ensure that you receive your copy of *Sabonet News* and other information we may send you, we would like to keep our mailing list up to date. PLEASE let us know if we have any of your details incorrect, by completing the enclosed form and returning it to us at your earliest convenience.

You can also use the enclosed form to give to other individuals/institutions whom you think would like to receive copies of *Sabonet News*. Thanks in advance for your cooperation.

In the December issue of Sabonet News...

- ❖ Profile on Gillian Maggs
- ❖ Peter Smith Herbarium, Maun, Botswana
- ❖ Country Working Groups
- ❖ November Training Course
- ❖ Second Steering Committee Meeting
- ❖ Workplan for 1997

Articles in this newsletter do not necessarily reflect the views of the SABONET Steering Committee.

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