

FORUM BOTANICUM

VOL. 25, NO. 5.

ISSN 0015-847X

OCTOBER
OKTOBER 1987

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

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Eerbewys aan Suid-Afrikaanse Plantkundige

Die Kantoer van die Staatspresident het onlangs in Kaapstad bekendgemaak dat Pres. P.W. Botha op aanbeveling van die Adviesraad vir die Ordewese goedgekeur het dat die Orde vir Voortreflike Diens (Klas I, Goud) aan 'n aantal Suid-Afrikaners toegeken word. Onder hulle is prof. Kristo Pienaar, Kaapse plantkundige en bekende skrywer asook Radio- en TV-persoonlikheid. Prof. Pienaar is 'n lid van SAGP en was tot sy onlangse aftrede Hoof van die Departement Botaniese, Universiteit van Wes-Kaapland.

NUUS VAN DIE UNIVERSITEIT VAN PRETORIA

SAADSIMPOSIUM : DINSDAG 6 OKTOBER 1987

Die Margaretha Mes-instituut vir Saadnavorsing bied vanjaar weer 'n simposium oor die Instituut se navorsingsbedrywighede aan. Die navorsing kan in drie breë kategorieë verdeel word, nl. bestuiwings- en bevrugtingsbiologie, saadgroei-kragtigheid en saadbehandelings. Die voordragte wat beoog word is soos volg:

Bestuiwings- en bevrugtingsbiologie

Bestuiwing en bevrugting van avokado's

Bestuiwing en bevrugting van mango's

Bestuiwing van broodbome

Voortplantingsbiologie van Tylosema - 'n potensiële hoë-proteïen-gewas

Identifisering van manlike steriliteit by sonneblom m.b.v. elektroforetiese tegnieke

Saadgroei-kragtigheid ('seed vigour')

'n Gerekenariseerde katalogus van saadgroei-kragtigheidstoetse

Saadgroei-kragtigheid van mielies

Saadgroei-kragtigheidstoetse vir graansorghum

Saadgroei-kragtigheidstoetse vir sonneblom

Wateropname deur mieliegraanvrugte - die anomalie van HL2

Lae temperatuurgevoeligheid van mieliegraanvrugte

Papierrolle as medium vir saadgroei-kragtigheidstoetse

Saadbehandelings

Saadbehandeling van tamaties

Saadbehandelings van kool

Saadbehandelings van mielies

INTREEREDE VAN PROF. A. EICKER

Prof. Albert Eicker het onlangs sy intreerede as hoof van die Departement Plantkunde aan die Universiteit van Pretoria gelewer. Die Tema van sy rede was: 'Die Stand van Mikologie in Suid-Afrika'.

Mikologie is die bestudering van swamme of fungi en het tradisioneel as onderdeel van die Plantkunde ontwikkel en word tans nog steeds as onderdeel van dié dissipline beskou. Dit ondanks die feit dat

swamme in moderne klassifikasiesisteme nie meer as plante beskou word nie, en in 'n afsonderlike ryk, die fungi, geplaas word.

Die bestudering van swamme is relevant en noodsaaklik volgens prof. Eicker. Benewens die feit dat swamme en hul aktiwiteite 'n ingrypende invloed op die mens en sy bedrywighede uitoefen, is hierdie groot groep organismes, met minstens 150 000 soorte, van groot ekonomiese belang. Afgesien daarvan dat swamme die vernaamste veroorsakende organismes van plantsiektes is, veroorsaak hulle ook siektes van mens en dier. Hul saprofitiese bedrywighede lei tot die vernietiging van talle produkte soos voedsel, hout, papier, tekstiel en selfs plastiek en rubber. Hierdie verliese is so astronomies dat dit nie in terme van geld uitgedruk kan word nie. Gemufde voedsel hou verder 'n ernstige bedreiging vir mens en dier in vanweë die moontlike produksie van toksiene wat tot mikotoksikose kan lei. Die uiters gevaarlike aflatoksin wat karsinogenies is en tot lewerkanker kan veroorsaak is 'n voorbeeld.

In sy rede het prof. Eicker probeer aantoon dat die swamme vir die mens van groot waarde is. Talle swamme word ingespan in 'n verskeidenheid van industriële prosesse soos by die bak van brood, die brou van bier en die produksie van wyn, antibiotikums, pigmente, organiese sure en ensieme. Swamme en swamspore word ook gebruik in chemiese transformasies van komplekse organiese verbindings, soos met die produksie van steroïede. Dit is egter die potensiële bydrae wat swamme tot die groeiende aanvraag na proteïene inhou wat in hierdie rede aangespreek is. Behalwe die produksie van enkelsel-proteïene (ESP) deur giste en filamentagtige swamme, het hy die huidige en moontlike toekomstige rol wat gekweekte sampioene in die voeding van die vinniggroeiende bevolking van Suid-Afrika kan speel onder die loep geneem. Hy is van mening dat met die toepassing van moderne verbouingstegnieke, verbeterde substraatvoorbereiding, streng beheer van patogene en insekpeste en die gebruik van produktiewe sampioen-kultivars sampioene soos Agaricus bisporus en Pleurotus pulmonarius 'n toenemend belangrike bydrae tot die mens se voedselbehoefte kan lewer. Sampioeneverbouing is tans die enigste biotegnologiese proses waardeur selluloseryke industriële- en landboukundige afvalstowwe direk en suksesvol tot voedsel en bruikbare nuwe produkte omskep kan word.

In 'n oorsig van die geskiedenis van Mikologie in Suid-Afrika het

prof. Eicker gewys op waardevolle bydraes wat deur Suid-Afrikaanse mikoloë op die gebied van plantsiektekunde, swamtaksonomie, mediese en veteriniere mikologie en die bestudering van mikotoksikoses gelewer is. Voedsel- en industriële mikologie is egter baie afgeskeep en behoort, in die lig van dreigende sanksies, dringende aandag te geniet. Die opleiding van suiwer mikoloë het in ons land ver te kort geskiet. Geen Suid-Afrikaanse Universiteit het tot dusver 'n volwaardige mikologiekursus aangebied nie. Huidige mikoloë het hul swamkennis hoofsaaklik deur selfstudie opgedoen om die gebrekkige inligting wat hulle in departementele plantpatologie, mikrobiologie en plankunde opgedoen het, aan te vul.

WAARDEVOLLE SKENKING VAN SAMPIOENLITERATUUR

Een van die pioniers op die gebied van sampioenverbouing in Suid-Afrika, dr P.G.J. Louw van Verwoerdburg, het sy boekery wat oor sampioenverbouing handel aan prof. Albert Eicker geskenk. Die eerste pogings om sampioene kommersieel in ons land te verbou het vroeg in die veertigerjare plaasgevind. Mev. Hildegard Robertson het waarskynlik die eerste sampioene in haar motorhuis in Johannesburg gekweek en sy is kort daarna deur persone soos mnr Monty Denny, dr Charles Kark en dr Max Chitters gevolg. In hierdie tyd het dr Louw by die Rietfontein Serum Laboratorium van die SA Instituut vir Mediese Navorsing naby Johannesburg gewerk. Hy het naby Monty Denny gebly en laasgenoemde se bedrywighede het sy belangstelling tot so 'n mate geprikkel dat hy heel gou self begin eksperimenteer het met die kweking van sampioene. Teen 1956 het hy sy eie sampioenvloklaboratorium gehad en toe uitbeweeg na Dennehof by Verwoerdburg waar 'n groot, moderne sampioenplaas oor die jare opgerig is. Gedurende 1975 het hy sy belange aan Tiger Oats (Edms.) Bpk. verkoop Op hul beurt het Tiger Oats die Dennehofplaas aan Tongaat Mushrooms verkoop.

Die boekery wat geskenk is sluit die volgende in:

Mushroom Science I (1953) tot VIII (1972)

MGA Bulletin No. 31 (1952) tot No. 276 (1972)

The Mushroom Journal No. 1 (1973) tot No. 70 (1978)

Verskeie handboeke oor sampioenverbouing

Herdrukke oor sampioenverbouing

Hierdie skenking is vir die Departement Plantkunde van onskatbare waarde. Dit vul die reeds groot versameling van literatuur oor Agaricus bisporus verbouing pragtig aan. Die terugnommers van The Mushroom Journal en sy voorganger, die MGA Bulletin, is veral baie welkom aangesien ons biblioteek nie oor die nommers beskik nie en dit ook nie in die handel verkrygbaar is nie.

EERSTE INTERNASIONALE BROODBOOMKONGRES

Prof. N. Grobbelaar van die Departement Plantkunde, het in April vanjaar die eerste Internasionale Broodboomkongres bygewoon. Die kongres is in die skilderagtige dorp Beaulieu-sur-mer naby Nice aan die Franse Riviera gehou en is deur navorsers uit 16 lande bygewoon.

Tydens die kongres is daar onder andere berig dat verskeie nuwe broodboomsoorte in Colombia, Suid-Amerika ontdek is. Twee hiervan verteenwoordig spesies van 'n nuwe genus Chiqua. In Argentinië is voorts ook fossiele materiaal van 'n plantsoort gevind wat baie met Stangeria eriopus ooreenstem.

Uit navorsing wat in Florida, VSA gedoen is, blyk dit verder dat ten minste een soort broodboom hoofsaaklik deur insekte bestuif word. Aangesien daar algemeen aanvaar word dat broodbome normaalweg slegs deur wind bestuif word, was hierdie 'n opspraakwekkende ontdekking wat daarop dui dat meer navorsing oor die bestuifingsme-
ganisme van broodbome interessante resultate mag oplewer.

N. GROBBELAAR

TAIWANESE PROFESSOR SPANDEER SABBATSVERLOF AAN UP

Prof. Doris C.N. Chang van die 'National Taiwan University' in Taipei, Taiwan het vir drie maande (Februarie tot Mei) gedurende 1987 navorsing in die departement gedoen. Prof. Chang is 'n plantfisioloog wat aan die Departement van Tuinboukunde van die 'National Taiwan University' verbonde is. Sy het haar nagraadse opleiding in die V.S.A. ontvang en is veral bekend vir haar navorsing oor die stimulerende invloed wat sekere wortelbewonende fungusse op die groei van saadplante het.

Gedurende haar verblyf aan UP., het prof. Chang in samewerking met proff. N.Grobbelaar en J. Coetzee 'n aftaselektronmikroskopiese studie van die wortelbewonende cyanobakterië van ons inheemse brood-

bome gemaak. Broodbome wat oor sodanige endofiete beskik, kan net soos peulplante wat Rhizobium-bakterieë in hul wortels bevat, stikstofgas uit die lug vir die vorming van proteïene gebruik.

N. GROBBELAAR

JONG NAVORSER BELOON

'n Jong plantkundige aan die Universiteit van Pretoria, prof. Braam van Wyk (35), is deur die Fakulteit Wis- en Natuurkunde van dié Universiteit vir sy besondere navorsingsprestasies vereer.

Die Fakulteit se toekenning wat vanjaar ingestel is, word aan jong doserende personeel, 35 jaar en jonger, wat ook met navorsing gemeed is, gemaak. Die toekenning bestaan uit 'n gegraveerde universiteitsmedalje en die verhoging van die ontvanger se navorsingstoekenning met R5 000.

Prof. Van Wyk het oor die afgelope agt jaar bykans 'n veertigtal publikasies op sy kerstok. Sy bydrae tot moeilike taksonomiese vraagstukke oor Suid-Afrikaanse plante word internasionaal hoog aangeskryf.

Hy het sedert 1978 verskeie houtagtige plantspesies tydens veldwerk ontdek. Prof. Van Wyk het nege nuwe boomspesies beskryf op 'n tydstip toe algemeen aanvaar is dat die boomflora van Suider-Afrika min, indien enige, nuwe ontdekkings sal oplewer.

Prof. Van Wyk is die eerste persoon wat die Suid-Natal/Pondoland-sandsteengebied as 'n belangrike endemiese sentrum geïdentifiseer het. Op grond van sy navorsingsbevindinge is R100 000 beskikbaar gestel om grond aan te koop wat by die Umtamvuna-natuurreservaat in Suid-Natal ingelyf is. Uit erkenning vir sy bydrae tot die kennis van die flora in hierdie gebied, is 'n nuwe boomspesie, Canthium vanwykii na hom vernoem.

Benewens doseer- en navorsingsverpligtinge het prof. Van Wyk onder meer al opgetree as koördineerder van die floristiese opname in Venda. Hy is lid van verskeie vakverenigings.

Hy sit tans sy navorsing oor die inheemse Myrtaceae en flora van Suid-Natal en Pondoland voort. Prof. Van Wyk is betrokke by die skryf van 'n veldgids tot die flora van die Pretoria/Witwatersrandgebied.

Prof. A.E. van Wyk het die volgende kwalifikasies behaal: B.Sc. (1973), B.Sc. (Hons) (Plantkunde) (1974) en M.Sc. (1977) almal met lof aan die PU vir CHO. In 1986 behaal hy die D.Sc.-graad aan die Universiteit van Pretoria. Prof. Van Wyk het vir sy M.Sc.-verhandeling baanbrekerswerk oor die genus Eugenia (Myrtaceae) gedoen. Die resultate wat behaal is kan as grondslag dien vir wêreldwye navorsing oor die genus.

Die Perdeby
27 Maart 1987

RESEARCH ON OPTIMAL VELD MANAGEMENT FOR ORIBI AND DOMESTIC STOCK
IN THE EASTERN CAPE

There are about 200 Oribi left in a few districts near Grahamstown in the Eastern Cape. It is proposed through a series of management and veld manipulative programmes to increase the reproductive success and stability of the Oribi populations on the Oribi Nature Reserve and farms of this district. A researcher is required, starting in January 1988, for a three year programme leading towards an M.Sc. in ecology. The project will be supervised jointly by members of the Departments of Plant Sciences, and Zoology & Entomology at Rhodes University (which will administer the project and award any degree arising from the research).

Ideally the candidate for this project should have demonstrated an interest in conservation, and hold a B.Sc. (Honours) degree or B.Sc. (Agriculture) degree with a strong emphasis on grassland ecology, animal ecology and/or conservation. The researcher should also have the ability to communicate and co-ordinate with the many people involved in this project - the academic supervisors, conservation officers of the Cape Department of Nature and Environmental Conservation and Dias Divisional Council (who have initiated this project), local and enthusiastic farmers, game conservancy guards and the farm labourers. A knowledge of English, Afrikaans and Xhosa would therefore be an advantage. Some of the basic research on the Oribi and Oribi habitats in the Eastern Cape has already been carried out and a veld management programme has been developed which the researcher would have to test, modify and assess in the next three years. Additional studies on the reproductive and behavioural ecology of the Oribi are also planned during this period.

Enquiries and applications, including a full curriculum vitae and the names of two referees should be posted to:

Prof. R.A. Lubke
Department of Plant Sciences
Rhodes University
GRAHAMSTOWN
6140

FLORA OF SOUTHERN AFRICA NEWS

1. Two flora volumes have been published so far this year:

Pteridophyta, by E.A. Schelpe (+) and N.C. Anthony. (Price R46,30 excl GST in South Africa, R55,60 in other countries, post free).

and

Simaroubaceae, Burseraceae, Ptaeroxylaceae, Meliaceae and Malphigia-ceae, by J.J.A. van der Walt, K.L. Immelman, F. White, B.T. Styles, P.D. de Villiers and D.J. Botha (Volume 18, 3). (Price: R9,65 excl. GST in South Africa, R12,00 in other countries, post free).

New research begun for the FSA this year has included the following families and researchers:

Poaceae: Pentaschistis (Vol. 2) H.P. Linder (BOL)
Portulacaceae and Basellaceae (Vol. 11) H.F. Glen & D.S. Hardy (PRE)
Fabaceae: Melolobium (Vol. 16) B.-E. van Wyk (JRU)
Combretaceae: Combretum (Vol. 24) E.F. Hennessy (UD-W)
Acanthaceae: Rhinacanthus (Vol. 30) K. Balkwill (NU)

2. A further ancillary volume has also appeared:

List of Species of Southern African Plants, edition 2, part 2, Dicotyledons, by G.E. Gibbs Russell, W.G. Welman, E. Retief, K.L. Immelman, G. Germishuizen, B.J. Pienaar, M. van Wyk, A. Nicholas, C. de Wet, J.C. Mogford and J. Mulvenna. Memoirs of the Botanical Survey of South Africa 56 (Price: R20,85 excl. GST in South Africa, R26,00 in other countries, post free).

Edition 2 of the 'Species List' is now complete, and all southern African plants are covered to the level of references needed to name to species in each genus, recent synonyms, and current revisors. Annual updates (additional species, 'new' species and name changes) to the 'Species List' have been published annually in

Bothalia for several years, and this will continue into the future.

Work has already begun on the third edition of the 'Species List', which will include distribution, habitat, importance to man, conservation status, and sources of illustrations. Prototypes for different methods of computerization to handle this information have been started for Fabaceae (under the ALICE software developed at the University of Southampton) and Poaceae (under the DELTA software developed at CSIRO, Canberra, Australia).

3. A register of southern African plant taxonomic projects is maintained by the Flora Division of the BRI, as a source of information about the status and aims of current taxonomic research. The register at the moment records who is working on particular families and genera. It has been suggested that it would be helpful if the register also listed floristic projects covering regions within the FSA area.

If you are engaged in a regional floristic project, and would like to have it recorded in the Register, please communicate the particulars (such as area covered, objective, degree of completion and person conducting the study), to Dr G.E. Gibbs Russell, Botanical Research Institute, Private Bag X101, Pretoria 0001.

Volumes of the FSA and the Species List can be ordered from: Directorate of Agricultural Information, Department of Agriculture and Water Supply, Private Bag X144, Pretoria 0001.

**REPORT BY THE KEEPER OF THE HERMANUS HERBARIUM FOR THE YEAR ENDING
DECEMBER 1986**

Last year I forecast an interesting year ahead for botanists. At that time 60% of Fernkloof Nature Reserve had been burnt out in an early December fire. Little did we know that an even more devastating fire was just around the corner that would get into almost every nook and cranny destroying all but a small area of fynbos in the western section of the Reserve commonly known as the Panhandle. Once over the shock of this blackened world we realised that a vast tract of land, not only in Fernkloof but in neighbouring reserves,

was at square one in the plant succession cycle and that this presented an unique opportunity to observe and record the growth pattern of plants after two separate fires.

The brilliant red fire lily (Cyrtanthus ventricosus) was popping up all over the place within a fortnight, and at the same time asparagus (Protasparagus compactus) spurs were pushing their way through providing a tempting snack for the buck. The hungry baboons were provided for by the Berg Palmiet (Tetraria thermalis) sending up succulent shoots almost immediately after the fires. To date several hundred plant species have flowered not just in ones and twos but often hundreds and thousands, providing massed displays of rich colours not to be seen again until the next fire. Many of these are rare, some endangered and a few may turn out to be new to science. Orchids have been particularly well represented in this post-fire feast with about 50 species having already flowered in the past year, nearly half of which were new to our Herbarium. While this colourful picture has been continually changing, the families that form the backbone of the fynbos Proteaceae, Ericaceae and Restionaceae to name a few, have been quietly resprouting and seeding, and although it may be some time before many of them flower, when they do they will be better than ever, because a fire at the right time can only do good to these tough adapted plants.

The post-fire study undertaken by the herbarium has not gone unnoticed by the powers-that-be and the keeper was asked to produce a poster paper illustrating our work, at the Annual Research Meeting of the Fynbos Biome Project last year. With the assistance of Richard Knight this was done. It must have been of some interest as an invitation to participate again this year has been received. It is appropriate to mention that projects of this nature are not done cheaply, and if our herbarium is to continue to grow in stature and work alongside similar institutions both from this country and overseas, some form of funding should be considered by the Botanical Society. In the meantime, thanks go to Dr Williams for allowing me to present the poster paper while officially representing Vogelgat Nature Reserve

This year has been hard work, fun and rewarding, and our three local

herbaria, that is Fernkloof, Vogelgat and Hermanus Coastal have worked closely together. I would like to acknowledge the assistance given to us with our orchids by Dr Hubert Kurzweil of the Institute of Botany, Vienna and presently attached to the Bolus Herbarium UCT, and the many other people who helped when the rush was on!

PRISCILLA DREWE

BRIEF REPORT ON THE 14th INTERNATIONAL BOTANICAL CONGRESS, BERLIN

NOMENCLATURE SESSIONS 20-24 July, GENERAL SESSIONS 24 July-1 August 1987.

This International Botanical Congress was overwhelming because of the very large number of participants and the many papers and sessions. There were over 3 500 papers presented in 18 parallel sessions, from 08h30 to 20h00 daily. In addition there were 6 parallel poster sessions, where each author had a few minutes to explain his topic. During lunchtime botanists of wide repute gave review papers in their specialty. Finally, there were over 50 special interest group meetings. Obviously, with such a wealth of sessions, lectures and meetings to choose from, it was difficult to work out each day's programme to avoid the inevitable conflicts and attend the papers of most interest.

The main divisions of the programme were metabolic botany, developmental botany, genetics and plant breeding, structural botany, systematic and evolutionary botany and environmental botany. In addition, there were general symposia on EDP (electronic data processing) in botany, history of botany, philosophy of botany, and new methods in structural, ultrastructural and molecular botany.

The Congress itself was so large that it was difficult to find all the delegates from this country, but I believe that about 25 South Africans attended, and over 20 were authors of papers.

G.E. GIBBS RUSSELL (BRI)

Vth INTERNATIONAL CONGRESS OF ECOLOGY

The Vth International Congress of Ecology will convene in Yokohama City, Kanagawa Prefecture, Japan, 23-30 August 1990. The theme will be ECOLOGICAL PERSPECTIVES IN THE 21ST CENTURY.

The Congress is organized by the International Association for Ecology (INTECOL), in conjunction with the ecology section of the International Union of Biological Sciences (IUBS) and is sponsored by the Science Council of Japan and the Ecological Society of Japan. It will include plenary lectures, symposia, workshops, contributed papers and posters, field trips, advanced courses, and public lectures. The call for papers will be in the second circular.

Yokohama is Japan's second largest city and lies adjacent to the capital, Tokyo. It serves as a hub of the nation's business activity, being home to many manufacturing and financial institutions, trading companies, large shopping centers, and high-technology research institutes and universities. The Congress will be held at the Kanagawa Kenmin Hall, which lies in Yamashita Park, a beautiful harbor-side park at the center of the city. Yokohama provides ready access to many sightseeing, recreational, and scientific field activities.

The organizers are concerned about the costs of this Congress and are examining special low-cost transportation and housing for students and foreign delegates. Ecologists interested in receiving a circular which will describe the preliminary arrangements and program should contact:

Professor Akira Miyawaki
Institute of Environmental Science and Technology
Yokohama National University
156 Tokiwadai, Hodogaya-ku Yokohama 240, Japan
Phone: 045-332-0975 FAX: 045-335-4094

SYSTEMATIC BOTANY - A KEY SCIENCE FOR TROPICAL RESEARCH AND DOCUMENTATION

In mid September this year a symposium devoted to the theme 'SYSTEMATIC BOTANY - A KEY SCIENCE FOR TROPICAL RESEARCH AND DOCUMENTATION'

TION' will be held in Stockholm, Sweden, under the auspices of the Royal Swedish Academy of Sciences. The symposium is intended to elucidate the importance of taxonomic botany for pure and applied sciences, such as int. al. agriculture and plant breeding, nutrition, forestry, medicinal plants research, biotechnology and biological conservation. Hence it should be of interest to a wide range of scientists as well as organizations engaged in development projects in the third world. From the enthusiastic responds to our first contacts with departments concerned it seems this symposium will fill a long-felt need.

Invited speakers who have confirmed their participation

H. Bänziger, Thailand: Systematic botany in conservation - a case study

G. Budowski, Costa Rica: Building bridges between botanists and developers in tropical countries

R. Carlsson, Sweden: Green plants as sources of proteins, carotenoids, etc.

A. Hamilton, Ireland: Ecology and Conservation

O. Hedberg, Sweden: Introduction

D.V. Johnson, U.S.A.: Systematic problems relative to palm conservation and utilization

W. Lewis, U.S.A.: Significance of the Pharmacopoeia used by the Amazon Jívaro

L.J.G. van der Maesen, Holland: Genetic resources of tropical legumes

H.J. von Maydell, Germany: Multipurpose trees of the Sahel for food production

L. Munck, Denmark: The importance of botanical research in breeding for quality characteristics in cereals

S. Nilsson, Sweden: The relevance of taxonomy in aeropalynology

R.E. Perdue, U.S.A.: Systematic botany in the development of Ver-
nonia galamensis as a new industrial oilseed crop for the semi-arid tropics

G. Samuelsson, Sweden: The importance of taxonomic botany for research on plants used in traditional medicine

H. Shands, U.S.A.: Systematic botany in support of agriculture

B. Simpson, U.S.A.: The need for systematic studies in reconstructing paleogeographical and ecological patterns in the South American Tropics

V.V. Sivarajan, India: Indian medicine and medicinal plants: a taxonomic dilemma

W.T. Stearn, England: Tropical botany and horticulture

B.G.E. Tewolde - Ethiopia: Ecology

M. Walters, England: The purposes of systematic botany

E.O. Wilson, U.S.A.: The magnitude of biological diversity

Preliminary programme

14 September

a.m. Opening session

p.m. Nutrition, agriculture

15 September

a.m. Medicinal plants and technical products

p.m. Genetic resources

16 September

a.m. Ecology and Conservation

p.m. Ecology and Conservation

17 September

a.m. Excursion

p.m. Closing session

All correspondence should be addressed to:

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S-751 21 UPPSALA
SWEDEN

Association for the Taxonomic Study of the Flora of Tropical Africa

The 1988 AETFAT CONGRESS (Twelfth Plenary Meeting of AETFAT) will take place at Hamburg from the 4th to the 10th September 1988. I hope that the timing will be acceptable to members.

So far, the following symposia have been scheduled:

Symposium I: Nature Conservation Actions and Positions in Africa
Convener: G. Lucas (Kew)

- Symposium II: The Present Status and Future of African Evergreen Forest. Convener: N. Hepper (Kew)
- Symposium III: Ecological Anatomy of African Plants
Convener: H. Baijnath (Durban)
- Symposium IV: Research on African Ficus L.
Convener: H. Baijnath (Durban)
- Symposium V: African Lichenology and Bryology
Convener: D. Wessels (Sovenga)
- Symposium VI: Modern Systematic Studies in African Plants
Convener: H.-D. Ihlenfeldt (Hamburg)

Every member who wishes to contribute to the above mentioned symposia, is kindly requested to contact the respective convener.

The schedule is still open to additional themes. If you feel that an essential topic is missing, please do not hesitate to contact the Secretariat.

If you are interested to take part in the AETFAT CONGRESS 1988, please contact the Secretariat as soon as possible. You will then receive the second circular which will give further details.

H.-D. Ihlenfeldt
AETFAT General Secretary
Institut für Allgemeine Botanik
Ohnhorststr. 18
D-2000 Hamburg 52
WEST GERMANY

INTERNATIONAL DIPLOMA COURSE IN HERBARIUM TECHNIQUES

This course commences in September 1987 in the Herbarium, Royal Botanic Gardens, Kew, United Kingdom, and takes place in collaboration with the Commonwealth Science Council and the British Council.

The urgent need to extend and deepen our knowledge of natural plant genetic resources is increasingly recognised worldwide, against a background of global habitat alteration and consequent loss of potentially valuable species. The importance of the herbarium as the basic working tool for plant resource surveys is paramount, since identification and systematics are fundamental to plant breeding, ecology and crop development. This is particularly true of the tropics where plant diversity is greatest and least explored.

This **International Diploma Course in Herbarium Techniques** is designed to meet the need for training in the techniques of herbarium management with these aims in mind. International trainee students will be drawn from Commonwealth and other countries under the auspices of the Commonwealth Science Council and the British Council, and the course will offer two major elements:

- * A programme of training in methods of maintaining and running a herbarium, so that students can return to their own institutions better able to manage all aspects of their herbarium, and with a clearer understanding of its function and potential.
- * The development in students of an understanding of data held in herbaria:

- (i) that is relevant to practical field conservation, and
 - (ii) that relates to plants with potential economic uses
- Students will also study local and scientific plant names, and explore the preparation, for publication, of plant identification aids for a wider range of users.

P R O G R A M M E

Week 1: Herbarium and Library tour; Gardens tour; field collecting (bioclimatic zones and their effect; field note-books and special collecting techniques); herbarium pests and treatments.

Week 2: Herbarium storage and environmental needs; laying-out (preparation of specimens for mounting), mounting materials and methods.

Week 3: Label data and control of specimen movements; identification lists; General Service Unit activities and routines.

Week 4: Herbarium classification systems; materials and methods for the herbarium; laying-in (filing), herbarium practice.

Week 5: Practical work in the Herbarium

Week 6: Preparing checklists of countries and districts

Week 7: Plant identification; naming and names, (botanical, local and vernacular); plant uses and Ethnobotany; simple publications as aids for the future.

WEEK 8: Review of the Course; special needs and contacts.

Optionally, on application, and depending on student ability and national training needs, the Course may be extended to a maximum of 12 weeks, to allow students to gain additional practical experience.

ORGANISATION

Under the direction of the Keeper, the main programme will be centrally run by the Herbarium Co-ordinator. The students will be individually assigned to a particular member of the Herbarium staff in one of the Sections headed by an Assistant Keeper. This will be organised in accordance with the personal needs and geographical requirements of each student.

THE ROYAL BOTANIC GARDENS, KEW AND THE HERBARIUM

The Botanic Gardens at Kew were acquired by the nation in 1841 with the Herbarium being established in 1852 under the first Director, Sir William Hooker. It is now one of two divisions of scientific activity within the Gardens and is probably the largest herbarium in the world, containing over 5 million specimens and with an associated library of 100 000 volumes and 140 000 reprints.

As a primary research facility, the Herbarium collection of preserved plants aims to be congruent with the diversity and geographical distribution of the world's vegetation, enabling researchers to study and compare the flora of the whole world within a single building. The collection includes a particularly large number of 'types' (275 000), the special specimens which serve as primary standards for fixing international nomenclature. These and the rest of the specimens are mounted on stout paper and can be managed as if they were cards in a giant filing system. Many of the staff have worked

in other countries and have a wide range of experience both of fieldwork and of many different herbaria.

The vast herbarium at Kew, which its attendant support units and experienced staff, provides an ideal training ground and environment for technicians seeking to develop the skills and experience which will enable them to make fuller use of their own Institute's herbarium.

DIRECTOR

Professor E.A. Bell

KEW HERBARIUM MANAGEMENT

KEEPER:	Mr G.LI Lucas
ASSISTANT KEEPERS:	Dr W.D. Clayton Dr I.K. Ferguson Dr R.M. Polhill Dr D.A. Reid
CHIEF LIBRARIAN & ARCHIVIST:	Miss S.M.D. Fitzgerald
HERBARIUM CO- ORDINATOR:	Mr M.J.S. Sands

For further information please write to:

The Keeper of the Herbarium
Royal Botanic Gardens, Kew
Richmond, Surrey, TW9 3AE
UNITED KINGDOM

In Memoriam R.M.T. Dahlgren, 1932 - 1987

South Africa and South African Botany lost a great friend when Prof. Rolf Dahlgren died tragically in a traffic accident on 14 February 1987. He was an internationally known systematist and was one of the many famous Swedish botanists who exerted an immeasurable influence on botany in southern Africa.

Rolf Martin Teodor Dahlgren was born in Örebro, Sweden on 7 July 1932 and obtained his doctorate from the University of Lund in 1964.

His thesis was entitled "Studies on Aspalathus and some related genera in South Africa". He was inspired by Profs. H. Weimarck and T. Norlindh to concentrate on the Southern African flora, and particularly the Cape Flora and wrote indispensable contributions on some groups.

He was attached to the Institute of Systematic Botany of the University of Lund from 1953 until 1973, and was then appointed Professor at the Botanical Museum of the University of Copenhagen, Denmark where he worked until his death.

He spent a total of 15 months doing field work in South Africa, accompanied on his first visit by Bo Peterson and on the second by Arne Strid. During these visits he was based at the Bolus Herbarium and the National Botanic Gardens, Kirstenbosch. He received generous help from Miss Elsie Esterhuysen. At this time he held the Smuts Memorial Fellowship in Botany. Apart from Aspalathus, Prof. Dahlgren also studied other genera of the Fabaceae, like Wiborgia, Lebeckia, Hypocalyptus and Lotononis. He also produced works on the endemic families Penaeaceae, Geissolomataceae and Retziaceae. His last visit to the country was in January and February 1982 when he attended the AETFAT Congress in Pretoria and also was Visiting Scientist at the Department of Botany, University of Pretoria. Pieter Kok and Braam van Wyk accompanied him on a collecting trip to northern and eastern Transvaal and Venda. His Southern African collections, including Natal and Zimbabwe, totalled more than 5 000 numbers.

Shortly before his death, Rolf Dahlgren submitted the manuscript of his magnum opus on the South African flora, namely his treatment of Aspalathus for the Flora of Southern Africa. This included 146 plates of line drawings, which he produced himself.

He also travelled widely in other parts of the world and visited countries such as Morocco, Egypt, Britain, Germany, Sri Lanka, the United States and Australia. He published articles on the botany of Scandinavia, Morocco and the Balearic Islands.

However, in an international context, Rolf Dahlgren will probably be best remembered for his systematic studies on the families of angiosperms in general, and the monocotyledons in particular. Based

on a wide range of facts from various disciplines, he presented a new classification which has so far gained wide support and is considered by many botanists to be the best yet formulated. He favoured the philosophy and application of cladistics and used a two-dimensional cladogram in which the orders of angiosperms are represented as the transections of an imaginary phylogenetic tree, to explain his angiosperm system.

Rolf Dahlgren was a member of many societies and boards, such as the Royal Swedish Academy of Science and the Royal Physiographical Society from whom he received the important Linnean Prize. He was one of the few botanists with a grasp of flowering plant classification on a worldwide basis. He was a friendly, stimulating, humble and generous person and will be sadly missed by the worldwide botanical community and especially those who knew him personally.

W.G. WELMAN

Change of Address of S.A. Council for Natural Scientists

The Council's offices moved to the Geological Survey Building, Pretoria Road 280, Silverton, as from 30 June 1987.

The new postal address is:

Private Bag X540
SILVERTON
0127

The new telephone number is: (012) 841-2075.

REDAKTRISE/EDITOR

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