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

EDMUND ANDRE CHARLES LOUIS ELOI SCHELPE: Prof. E.A.C.L.E. Schelpe, Professor of Botany at the University of Cape Town and Curator of the Bolus Herbarium, died on 12 October 1985. He was born in Durban on 27 July 1924 and obtained his M.Sc. degree at the Natal University in Pietermaritzburg in 1946. He received a D. Phil. from Oxford University in 1951 and became Curator of the Fielding Herbarium at Oxford. In 1953, he was appointed Lecturer in Botany at Cape Town University where he became Curator of the Bolus Herbarium in 1960 and Professor in 1973. Prof. Schelpe collected widely in Southern Africa and also in Kenya, Ethiopia, Zambia, Zimbabwe, Mozambique and the Himalayas. He is commemorated in many plant names, such as Aloe schelpei Reynolds and Marsilia schelpeana Launert. The Nuffield Trust granted him a Nuffield Dominion Travelling Fellowship in 1959. He was elected to fellowship of the University of Cape Town, the Royal Society of South Africa as well as the Linnaean Society, London.

Professor Schelpe was recognised as an international authority in two major areas of Plant Systematics: the taxonomy of Pteridophyta, and the taxonomy of the Orchidaceae. This fact is indicated by his numerous publications in these fields in international and South African journals, his election to membership of the International Association of Plant Taxonomy's Committee on Pteridophyta in 1964 and his election to chairmanship of the International Orchid Commission's Committee on Orchid Taxonomy and Nomenclature in 1975. He was also Vice President of the Commission itself.

Professor Schelpe's reputation in the field of Plant Taxonomy had been so wide that three other African countries called on his services, and his researches have been responsible for the official Pteridophyte floras of Mozambique, Zambia, Zimbabwe and Angola. He was involved in the preparation of the Orchidaceae for the Flora of Southern Africa while his volume on the Pteridophyta for the Flora of Southern Africa will appear early in 1986.

In addition to his expertise in these two major fields, Professor Schelpe was recognised as the leading South African authority on the Bryophytes of this country and he also made useful contributions to our taxonomic knowledge of local Gymnosperms.

Apart from his research contribution, Professor Schelpe expanded and enriched South African Botany by his establishment of a strong plant taxonomic teaching and research school centered in the Bolus Herbarium of the University of Cape Town. This school produced many notable South African botanists who have themselves contributed significantly to South African and World Botany.

The South African Association of Botanists awarded their Senior (Silver) Medal for Botany for 1980 to Professor Schelpe in recognition of his meritorious services to Botany in South Africa. We shall remember E.A.C.L.E. Schelpe, an Honorary member of SAAB and a respected taxonomist who made major contributions to Southern African Botany and enhanced the prestige of South African science and scientists on the international stage.

O.A.M.L. & W.G.W.

JOHN PATRICK MICKLETHWAIT BRENNAN: Professor J.P.M. Brennan, former Director of the Royal Botanic Gardens, Kew, died on 26 September 1985. He was born in Kent, England, on 19 June 1917. He showed an interest in plants from an early age, joined the Botanical Exchange Club in his teens and by the end of his student days had amassed a herbarium of over 5 000 specimens. He received his education at Tonbridge and Brasenose College at Oxford University where he graduated with First Class Honours in Botany in 1940. He joined the Imperial Forestry Institute, Oxford in 1940 and moved to the Royal Botanic Gardens, Kew in 1948 as Senior Scientific Officer where, in 1959, he was placed in charge of the Tropical African Section. In 1965 he became Keeper of the Kew Herbarium and Library and Deputy Director of the Royal Botanic Gardens. At the resignation of Professor-Heslop Harrison, Professor Brennan succeeded him in August 1976. With his strong inclination towards research his promotions to administrative posts were always somewhat reluctantly accepted by him, but acclaimed by the staff he controlled.

In his seventeen research years at Kew, the quantity and quality of his scientific work as unrivalled. He brought to his floristic studies a broad scholastic experience, a fluency in French, German and

Latin, a shrewd understanding of plant variation, a sharp eye for salient differences and a remarkable economy and elegance of writing. He made outstanding contributions to the "Flora of Tropical East Africa", the "Flora Zambesiaca" and the second edition of the "Flora of West Tropical Africa". His greatest contributions were to the Leguminosae (especially Acacia), Chenopodiaceae, Commelinaceae and Sterculiaceae. He produced a wealth of publications on African plants of which his Checklist of the Forest Trees and Shrubs of the British Empire No. 5 has been called a classic of African floristics. In collaboration with P.J. Greenway, he produced a descriptive check-list of the Woody Plants of Tanganyika, published in 1949.

He visited Northern Rhodesia and Tanganyika in 1947 - 48, making extensive observations and collections, followed by collections in West Africa as a member of the Cambridge Botanical Expedition to Nigeria and the Cameroons. Brazil, Hawaii, Kenya, Mexico and Southern Africa were eventually included in the areas he had botanized in, and by the time he presented his collections to Kew his numbers had risen to 15 000.

Professor Brenan was Botanical Secretary of the Linnaean Society, London, 1965 - 72; President of the Association for Tropical Biology and elected to the Council of the International Association for Plant Taxonomy in 1975. In 1977, he was made visiting Professor to the University of Reading, in 1978 he was made Honorary Member of Societade Broteriana and awarded the Victorian Medal of Honour by the Royal Horticultural Society, and in 1979 was given one of the Willdenow Medals by the Berlin Botanic garden. In 1981, he was elected President of the Botanical Society of the British Isles.

In January 1982, during the AETFAT Congress in Pretoria, Professor Brenan was one of the three recipients of the Special Award of the South African Association of Botanists and so became one of the few Honorary Members of SAAB. We mourn the passing of an extremely gifted and productive botanist, an erudite scholar and a kind friend of Botany in Southern Africa.

B. de W & W.G.W.

REPORT FROM THE MYCOLOGICAL RESEARCH UNIT, PLANT PROTECTION RESEARCH INSTITUTE, PRIVATE BAG X134, PRETORIA 0001

Since the last report to Forum Botanicum in 1984, the activities of the Unit has increased by c.a. 30% on average for the various ser-

vices rendered. This can mainly be attributed to the formalization of the Identification Service which handled a total of more than 400 specimens for institutions other than the Unit itself. This is a remarkable achievement considering a single identification can take up to six weeks or longer to complete. This is done in addition to the research done on personal projects.

The National Collection of Fungi (dried specimens) PREM grew to a total of 47993 which presents an increase of 33% on the acquisitions of last year. A temporary collection was started for specimens which cannot at present be identified. A backlog of 158 specimens have already been taken up in this register with at least the same number still to be entered. This system has greatly increased the accessibility of unidentified specimens.

Loans: Internationally 10 involving 55 specimens and nationally 15 specimens. Exchange specimens: 947 dried specimens from the University of California herbarium and 100 from DAR, Biological and Chemical Institute, New South Wales, Australia, who wish to increase their South African Fungi. Duplicate sets will be prepared for exchange in due course. These collections constitute a valuable addition to PREM.

The Culture Collection PREM came into its own with donations of culture collections from the CSIR, the Universities of Potchefstroom and Pretoria and National Chemical Products (Pty.) Ltd. At present there are 2620 isolates in this collection. A total of 60 cultures were supplied free upon request for microbiological and plant pathological research as well as educational purposes.

Various problems in PREM have been identified which centre round the arrangement and organization of specimens. An improvement in the economy leading to possible employment of additional fully fledged mycologists would alleviate these problems.

Lists of fungi associated with the genera Eucalyptus and Pinus in South Africa are being prepared in collaboration with Dr John E. Lundquist, Forest Pathologist, PPRI, Sabie.

REPORT ON ACTIVITIES

The Unit undertook four collecting trips to Sabie, two to Natal and one each to the Soutpansberg area of Northern Transvaal, the Eastern

Transvaal and to Hogsback - Grahamstown via Middelburg, C.P. On these trips a wealth of especially photographic material on the fungi were obtained.

The collection trips and isolations regarding the survey of the genus Fusarium in South Africa initiated by Dr Lester W. Burgess, Australia, assisted by Rupert Y. Anelich from this Unit as well as others in the PPRI, Stellenbosch and Dr W.F.O. Marasas, MRC, Tygerberg, was completed during the past year. A number of new species have already been established as a result of this survey. Rupert's own research regarding the entomophagous species of Fusarium has produced very promising results in terms of its biological application and taxonomic implications to relationships of the teleo- and anamorphs concerned.

The identifications in the genus Penicillium is handled solely by Mrs A. Louise Schutte, who has established some new records for South Africa. She has handled 120 cultures for various institutions during the past year. This service is most sought after and contributes greatly to our knowledge of the mycoflora of South Africa.

Alice P. Baxter continued the study of the Uredinales and Aphylophorales and reported new records. She routinely identifies the genera Colletotrichum and Aspergillus, where A. tubingensis (Schöber) Mosseray, A. tamarii Kita and A. terricola Morchal were noted.

Cecilia Roux reported the first specimen of the toxic Amanita excelsa (Fr.) Kummer (syn. A. spissa (Fr.) Kummer) which can easily be mistaken for A. pantherina (DC. ex Fr.) Secr. Luckily both are well known toxic species. Amanita pleuropus (Kälch. & MacOwan) Reid was reported from various localities in Pretoria. Agaricus bitorquis (Quél.) Sacc. was positively identified (New SA record). The study of the Coelomycetes continued with one of the most noteworthy findings being Bloxamia truncata Berk. & Br. on leaves of Podocarpus latifolius. The fodder samples identified for mycotoxigenic fungi for the Veterinary Research Institute, Onderstepoort increased by 33% during the past year. The increase in the presence of Aspergillus flavus Link continued, which seemed to go hand in hand with the country-wide drought. Other noteworthy fungi found were, Fusarium moniliforme Sheldon, F. solani (Mart.) Appel & Wollenw. emend. Snyder & Hans., Pithomyces chartarum (Berk. & Br.) M.B. Ellis and Stenocarpella maydis (Berk.) Sutton (syn. Diplodia zeae (Schw.) Lév.).

A number of overseas visitors were received in the Mycological Research Unit, while three groups of students on tertiary level were lectured on the activities of the Unit.

C.R.

VEREISTES EN STANDAARDE VIR NAGRAADSE OPLEIDING IN PLANTKUNDE AAN SUID-AFRIKAANSE UNIVERSITEITE

Gedurende die Jaarlikse Kongres van die SAGP wat in Januarie 1985 aan die Potchefstroomse Universiteit vir CHO gehou is, was daar geleentheid geskep om oor bogenoemde onderwerp te gesels. Ongeveer 50 persone het die vergadering bygewoon en 'n lewendige uitwisseling aan gedagtes het plaasgevind. Dit was uit die staanspoor duidelik gestel dat die be-doeling van die gesprekvoering nie is om eenvormigheid by ons uni-versiteite te propageer nie maar eerder om inligting uit te ruil en hopelik van mekaar te leer.

Daar was veral gesels oor die wenslikheid om die M.Sc.-graadstudie te behou. Die vraag was of 'n student nie, soos by baie buitelandse universiteite, toegelaat moet word om direk na sy B.Sc.- of B.Sc.-Hons-graad vir die doktorsgraad in te skryf nie. In die gesprekvoering was daar verskil van opinie of dit gedoktoreerde produkte op 'n vroeër ouderdom sou lewer. Die meerderheid van die aanwesiges het skynbaar vir die behoud van ons huidige stelsels waarby 'n M.Sc. normaalweg in-gesluit is, gevoel. Daar was egter 'n sterk gevoel dat die M.Sc.-ver-handeling teenswoordig geneig is om te ontaard in iets wat nie wesentlik van 'n doktorsale proefskrif verskil nie. Verskeie sprekers het gepleit vir 'n afskaling van die vereistes wat vir die M.Sc.-graad gestel word.

Die B.Sc.-Hons opleiding verskil skynbaar baie by verskillende univer-siteite. Party vereis twee omvattende navorsingsverslae (een in elk van twee verskillende subdissiplines van die plantkunde) sowel as aansienlike opleeswerk en seminaarvoordragte met geen formele lesings en praktikums nie terwyl die opleiding by ander Universiteite baie meer formeel is en op 'n voorgraadse lees geskoei is deurdat dit groot-lik uit voorlesings en praktikums bestaan.

Van die indiensnemers van die Universiteitsprodukte het gekla oor (a) die onvermoë van gegradueerdes om te kommunikeer - beide mondelings en skriftelik, en (b) oor die tyd wat hulle moet spandeer om nuwe lede op te lei in die uitvoering van die spesifieke pligte wat die poste vereis. Hierteenoor is daar genoem dat die tyd wat beskikbaar is vir

die opleiding van plantkundiges so min is en dat die hoeveelheid plantkunde wat geleer moet word soveel is dat daar nie veel tyd aan ander dinge afgestaan kan word nie. Die vraag ontstaan trouens of dit die plig van 'n plantkunde departement aan 'n Universiteit is om sy studente te leer om te praat en te skryf? Daar is verder gemeld dat die primêre taak van 'n universiteit is om denkers te lewer en nie tegnoloë nie. 'n Universiteit lei nie persone op om sekere spesifieke poste te vul nie maar verskaf die breë vakkundige agtergrond en intellektuele ontwikkeling wat die student, met die nodige latere aanpassing, in staat behoort te stel om een van vele verskillende poste suksesvol te beman.

Lank voordat almal uitgepraat was, moes die vergadering gesluit word. Hopelik sal sulke openhartige gesprekke in die toekoms grootliks daartoe bydra dat ons meer van mekaar se sienswyses en handelswyses sal leer en ons sodoende in staat stel om die algemene peil van die opleiding wat ons aanbied te verhoog.

N.G.

WORKING GROUP FOR THE FLORA OF SOUTHERN AFRICA

Twenty-two persons attended the annual meeting of the contributors to the Flora of Southern Africa, held at the SAAB Annual Congress in Potchefstroom, January 1985.

Since that meeting, two fascicles of the FSA, a volume in the Palaeoflora of Southern Africa series, and an ancillary volume of the FSA have been published:

Lamiaceae, Volume 28, Part 4. L.E. Codd.

Xyridaceae, Eriocaulaceae, Commelinaceae, Pontederiaceae, Juncaceae.
Volume 4, Part 2. A.A. Obermeyer, J. Lewis & R.B. Faden.

Prodromus of Southern African Megafloras, Devonian to Lower Cretaceous. J.M. Anderson & H.M. Anderson. Rotterdam: Balkema.

List of Species of Southern African Plants, Edn 2, Part 1, Bryophytes, Pteridophytes, Gymnosperms and Monocotyledons.
G.E. Gibbs Russell, C. Reid, J. van Rooy & L. Smook. *Memoirs of the Botanical Survey of South Africa*, No. 51.

At the AETFAT meeting at the Missouri Botanical Garden, St. Louis, USA, during June, it was resolved that the Botanical Research Institute should maintain a continuous Register of Plant Taxonomic and Related

Projects in Africa. This Register will be expanded from the existing Plan of the Flora of Southern Africa that has been kept for a number of years. Questionnaires will be sent to all AETFAT members during August.

G.E.G.R.

MEMOIRS OF THE BOTANICAL SURVEY OF SOUTH AFRICA NO. 51: List of Species of Southern African Plants, Edition 2, Part 1, Bryophyta, Pteridophyta, Gymnospermae, Monocotyledonae, by G.E. Gibbs Russell, C. Reid, J. van Rooy and L. Smook 152 pp (1985) Price R5,30 excl. GST, post free; overseas R6,50. Available from the Director, Botanical Research Institute, Private Bag X101, Pretoria 0001. The second edition of the List of Species includes literature references necessary to name the species in each genus, and synonyms that have been in use as accepted names of taxa in the past \pm 30 years.

NUUS VAN DIE SAGP-SEKRETARIAAT:

(a) ADRESVERANDERINGE EN LIDMAATSKAPGELDE

Lede word versoek om asseblief die Sekretaris van SAGP in kennis te stel indien hulle van adres verander. Hierdeur kan die Vereniging nie alleen posgeld en drukkoste verbonde aan die Tydskrif en Forum bespaar nie, maar sal u ook verseker daarvan wees dat u gereeld korrespondensie ontvang.

Die volgende lede se posstukke kom terug:

| | | |
|--------------|----------------|--------------|
| A. de Bruyn | D.J. Edgecumbe | E.M. Hoon |
| G.L. Maggs | H.R. Minnaar | A. Muller |
| R. Muller | D.J. Nel | P.M. Olivier |
| R. Pool | L.F. Rossouw | K.N. Gouws |
| L.G. Twaddle | T. Erasmus | M.J. Cloete |

Weet iemand dalk wat hulle nuutste adres is?

Heelwat probleme word ondervind met lede wat nie hul ledegeld betaal nie. Daar is selfs 14 persone wat nie eens hul 1984 ledegeld betaal het nie! Aangesien die Vereniging hierdie persone se Tydskrifgeld moet betaal word u vriendelik versoek om so gou moontlik u jaarlikse ledegeld aan die Tesourier te stuur.

Adresse is soos volg:

Die Sekretaris: SAGP
Dr W.F. Reyneke
Departement Plantkunde
Universiteit van Pretoria
PRETORIA
0002

Die Tesourier: SAGP
Prof. P.D.F. Kok
Departement Plantkunde
Universiteit van Pretoria
PRETORIA
0002

(b) SAGP-lede word versoek om enige probleme of nuuswaardigheid aangaande NATUURBEWARING aan die Sekretaris deur te stuur.

REVIEW OF THE WORK OF THE BOTANICAL RESEARCH INSTITUTE, 1984/85

INTRODUCTION: Whereas excellent progress is being made on a variety of research facets concerned with botanical topics of high priority it is a disconcerting fact that the two main projects of the Botanical Research Institute, namely the Flora of Southern Africa and vegetation surveys are lagging behind because of insufficient support. These projects are of vital concern to our future because they are designed to supply information on which management of vegetation, essential for maintaining the plant cover of our country, is based. Maintaining an adequate plant cover is the only way in which desertification, the scourge of Africa which threatens our very existence, can be avoided. It is a fact that insufficient funds and manpower cannot be advanced as a reason for lack of support. State funds are being found for creating other botanical posts of a much less urgent nature. As pointed out before, the lack of support for priorities as vital as these, can only be attributed to the fragmented state of botany and biology as a whole in South Africa. Can we allow this state of affairs, which threatens our future, to continue?

FLORA RESEARCH DIVISION

Flora of Southern Africa (FSA): The Department has again supported the Flora of Southern Africa subproject both nationally and internationally by awarding a research contract to a contributor at a South African university and a fellowship to an overseas contributor. The third meeting of the FSA working group was held during the Congress of the South African Association of Botanists, and such meetings will be held at all future SAAB Congresses. News of interest to FSA contributors is circulated in Forum Botanicum, the newsletter of SAAB.

Two fascicles were published: Vol. 28,4 (Dr. L.E. Codd) covering the whole of the family Lamiaceae, with 37 genera and 232 species. Mr.

M. Iwarsson of Uppsala contributed the genus Leonotis. Vol. 4,2 dealing with the families Xyridaceae, Eriocaulaceae, Commelinaceae, Pontederiaceae and Juncaceae, by Mrs. A.A. Obermeyer (Mauve), with Dr. J. Lewis of the British Museum (part of Xyridaceae) and Dr. R.B. Faden of the Smithsonian Institution, USA (co-author of Commelinaceae and author of Aneilema). Vol. 14 on Crassulaceae by Dr. H.R. Tölken, formerly a member of the BRI, but now at the Herbarium in Adelaide, Australia; and the volume on Pteridophyta by Prof. E.A. Schelpe & N.C. Anthony of the University of Cape Town are in the press. Vol. 31,1,2 dealing with the family Rubiaceae (subfamily Rubioideae) by Dr. Ch. Puff of the University of Vienna, Austria, is at an advanced stage of editing and will go to press in 1985.

The List of Species of Southern African Plants, Edn. 2, Part 1, covering cryptogams, gymnosperms and monocots appeared in 1985. The List of Species is intended to serve as a precursor to the FSA, and provides an overview of the southern African flora until the FSA is complete.

A Catalogue of South African Green, Brown and Red Marine Algae, compiled by prof. S.C. Seagrief of Rhodes University was published.

Institute members, and outside contributors on contract or fellowship, made the following progress with research facets on volumes of the FSA:

Lichens: Prof. O. Almborn of Lund, Sweden, is continuing to co-ordinate a volume on lichens, and has enrolled 28 contributors, covering most of the families.

Bryophyta: Work on Fascicle 2, covering Funariales to Bryales was completed in 1982 by dr. R.E. Magill of the Missouri Botanical Garden, USA, except for the genus Bryum, which will shortly be completed by Mr. J. van Rooy. Dr. Magill is now working on Fascicle 3.

Vol. 2: Poaceae. Computerization of the Register of Names and Types was completed by Dr. G.E. Gibbs Russell and transferred to the PRECIS Herbarium database, as a beginning to the re-development of the bibliographic component that was originally planned. Oryzoideae, Centostecoideae and Bambusoideae. The genus Ehrharta was studied in the field by Dr. G.E. Gibbs Russell, emphasizing intraspecific variation between isolated mountain groups of the southwestern cape. In Oryzoideae taxa were delimited and keys written. Poaeae and Bromaeae. Dr. H.P. Linder, as light relief

from his study of Restionaceae, has written the FSA account of about 45 species in these tribes. Many of the species are naturalized aliens from Europe, and the study was completed efficiently while he was serving as Liaison Officer at Kew Herbarium.

- Vol. 4: Restionaceae. The conspectus of the family, including nomenclature, keys, descriptions of new species, formal new combinations and notes on the taxonomy, ecology and distribution of the taxa was completed by Dr. H.P. Linder and is in press in Bothalia. About 320 species are recognized, including 55 new species and 83 new combinations. This is the first large family to be treated first as a conspectus for the FSA.
- Vol. 5: Asparagaceae. Mrs. A.A. Obermeyer-Mauve has completed her study of the two genera Protasparagus and Myrsiphyllum, and the treatment of the latter was published in Bothalia. Where previously one genus (Asparagus) with 44 species was recognized, the new classification has two genera and 77 species.
- Vol. 8: Orchidaceae. Prof. E.A. Schelpe, of the University of Cape Town, on contract to the Department, continued work on this volume, assisted by Mrs. N.C. Anthony. About a third of the species are completed.
- Vol. 9: Salicaceae, Fagaceae, Urticaceae and Piperaceae. Miss K.L. Immelman is well advanced with her studies of Salix, Populus and Quercus. She has completed work on the two genera in Piperaceae, Piper and Peperomia.
- Vol. 11: Mesembryanthemaceae. Dr. H.F. Glen is preparing manuscripts of Astridia, Acrodon and Ebracteola for Bothalia.
- Vol. 16: Fabaceae—Desmodieae. Mr. B. Schrire has completed his thesis on this group, and has rewritten the account as a revision to appear in Bothalia.
- Vol. 25: Ericaceae. Mr. E.G.H. Oliver completed revisions of the minor genera Salaxis, Coccosperma and Scyphogyne. Research continues on Ericinella, Philippia, Sympieza, Aniserica and Blaeria, where limits between the genera must be more securely drawn. Special studies were made of inflorescence structure, seed and fruit types.
- Vol. 28: Lamiaceae. The FSA treatment of the family, by Dr. L.E. Codd, was published.

Vol. 30: Acanthaceae—Justicia. Miss K.L. Immelman completed FSA accounts of Justicia and Siphonoglossa. The genus Aulojusticia was placed in synonymy with Siphonoglossa and a new species described.

Vol. 31: Rubiaceae—Rubioidae - Paederieae, Anthospermeae, Rubieae. Dr. Puff completed this account while holding a Departmental Research Fellowship. The manuscript is in the press.

Pretoria Flora

The families Asclepiadaceae, Periplocaceae, Vitaceae and Myrtaceae were completed. Several other families were modified in the light of new revisions. To date, 542 camera-ready pages have been produced.

Palaeoflora of Southern Africa

Prodromus of South African Megafloras, Devonian to Lower Cretaceous, written by Drs. J.M. Anderson and H.M. Anderson, and published by A.A. Balkema, appeared recently. It deals with all plant fossils known to have occurred in southern Africa during the period when all the continents were united in the single supercontinent, Pangaea. The book also includes detailed biographical information about the principal collectors of fossil plants in southern Africa.

Liaison Officer, Kew

Dr. H.P. Linder has served at Kew for a third year, and has provided information about taxonomic and related subjects to researchers on the southern African flora both from South Africa and from overseas. His research has been concentrated on the Restionaceae and its hypothetical sister-group, the Poaceae.

DATA SUB-DIVISION

Data Sub-Division serves the needs of the Institute for electronic data processing on the Burroughs 7900 computer of the Department and a Hewlett-Packard 9845B microcomputer. Large systems maintained on the Burroughs include: PRECIS, the Herbarium database managed by Mr. N.P. Barker is the largest of its kind in the world, recording specimen label information for over 600 000 herbarium specimens. In the past year PRECIS has been expanded by Dr. G.E. Gibbs Russell to include a taxon-based set of on-line data files that record the most recent treatment of all 24 000 plant taxa in southern Africa, with synonyms and literature references. A beginning has been made in developing the bibliographic component originally planned for PRECIS.

PHYTOTAB is a suite of programs and a database for managing spatial and temporal sampling of vegetation, and is managed by Mr. M.D. Panagos. Information from past vegetation studies, as well as those currently under way, are being entered into PHYTOTAB, and a link between PHYTOTAB and PRECIS will allow automatic updating of plant names so that studies of various ages can be compared. The Garden Records system, developed and maintained by Mrs. B.C. de Wet, continues to process new material added to the Pretoria National Botanic Garden. Miss A.P. Backer is developing a database of photographic records for Vegetation Ecology Division.

Smaller systems maintained on the Hewlett-Packard microcomputer are the address labels for the Institute, and programs to prepare distribution maps, specimen labels and determinavit slips for taxonomic researchers. A database of grass chromosome numbers was set up by Mr. J.J. Spies, and Mr.T.H. Arnold is developing a database of food plant records. The National Working Group for Vegetation Ecology has records of all researchers and projects in vegetation ecology, and the Flora Research Team has a database to hold the Register of Southern African Plant Taxonomic Projects.

HERBARIUM DIVISION: The four herbaria of the Institute continued to identify plants and provide information to a wide range of people including officers of this Institute, various state and provincial departments, universities and the general public, both in the Republic of South Africa and its neighbouring states. The research input of the herbarium staff is also gaining momentum with a total of 12 registered facets.

NATIONAL HERBARIUM, PRETORIA (PRE): Until her retirement in September, 1984, the Herbarium Division was administered in an acting capacity by Mrs. E. van Hoepen as curator, assisted by Miss W.G. Welman (finances). In October 1984, Mr. T.H. Arnold was appointed as curator. During the year 16 501 specimens were named and 22 449 specimens accessioned. 62 loans (4 253 specimens) were sent to other institutes and 43 loans (4 252 specimens) were received. PRE sent out 4 770 duplicates and received 4 111 in exchange. Collecting expeditions were undertaken to areas where the vegetation had recovered sufficiently from the drought. This included trips to the northern and north-western Transvaal, the eastern Transvaal, the Natal Drakensberg, Transkei and northern Natal. Two officers went to Tongaland to carry out a survey of potential weeds which may affect the rice-growing project

planned for the region. No new herbarium cabinets were installed and the proposed fire protection was postponed until 1989/90. Plans have, however, been approved for the installation of three more working bays on the south side of each wing. This will greatly relieve congestion, especially when visitors have to be accommodated for any length of time.

Visitors to the National Herbarium numbered about 700. These included: Prof. O.H. Volk, West Germany (Hepaticae); Dr Ch. Puff, Austria (Rubiaceae); Prof. U. Müller-Doblies, West Germany (Amaryllidaceae); Mr. F. White, England (Meliaceae); Mr. B.L. Burt, Scotland (southern Drakensberg plants); Prof. O.M. Hilliard, Natal (southern Drakensberg plants); Dr S. Talukdar, Lesotho (Lesotho plants); and Dr. J. Prior, England (various taxa). South African visitors included staff and students from several universities, state departments, nature conservation departments and Philatelic Services.

WING A: Miss C. Reid is responsible for identifications of Pteridophytes and all Monocotyledons with the exception of Poaceae. She has a special interest in the Cyperaceae and intends revising the genus Carex for an M.Sc. degree. During the year she completed the list of synonyms of all taxa in her section and this work, together with the Poaceae compiled by Miss L. Smook, has gone to press as Vol. I of a second edition of the List of Species of Southern African Plants, Mem. bot. Surv. S. Afr. No. 48. (The Dicotyledon part of this publication is in preparation). Miss L. Smook deals with all identifications of Poaceae. She undertook a number of collecting expeditions aimed at filling in gaps in the Poaceae collections. This work forms part of her project on collecting specimens in all under-collected areas in southern Africa. On one of her expeditions (to the Transkei) she collected flowering material of Bambusa balcooa, and thus verified the identity of this species in South Africa.

WING B: Mr. G. Germishuizen is writing up his study of the Polygonaceae in Flora format, for publication in the Flora of Southern Africa. He has commenced work on a second volume of Transvaal Wild Flowers in collaboration with the artist Mrs. A. Fabian. About 40 plants have been illustrated to date. He is mainly responsible for identifying the Fabaceae and for curating the spirit collection. Mrs. B.J. Pienaar, who assists with general identification, is also engaged in a taxonomic study of the genus Vigna with the view to obtaining her M.Sc. degree. In addition, she is responsible for all identifications of exotic plants.

WING C: Miss E Retief has a special interest in the identification of taxa from seeds and fruits and is concentrating on the Cucurbitaceae. Examining both macro and microscopic features of the seeds and fruits, she hopes to better delineate the ultraspecific taxa in the family. Miss K.L. Immelman is seconded on a part-time basis from the Flora to the Herbarium Division. She is responsible for general identifications in this wing and is helping Wing B with the identification of Capparaceae and Crassulaceae and some early dicot families. Mr. A.A. Balsinhas, a member of the Plant Exploration Division, has worked in Wing C every afternoon since 11 May 1984, doing general identifications and, thanks to his good work, Wing C has now caught up with its backlog of identifications.

WING D: Although Miss W.G. Welman does general identifications in this wing, her special interest is the Asteraceae. She acted as assistant (finances) to the acting curator of the section and in the absence of the curator assumes responsibility for the Division. She continues to be active as regional abstractor for Excerpta Botanica (Taxonomica). Mrs. M.J.A.W. Crosby assists with general identification in Wing D, and has also given much appreciated help in Wing B, where a backlog in identifications has built up since January 1984. In addition, she administers the Staff Gift Fund.

All professional officers in Wings, B, C and D have been involved in work on the list of synonyms to be published as Vol. 2 of a second edition of the Species List. (Mem. bot. Surv. S. Afr. No. 48).

Cryptogams: Mr. J. van Rooy, in charge of the moss herbarium, is working on Bryaceae and Psychomitriaceae for the Flora of Southern Africa. He has prepared a checklist of the South West African/Namibian bryophytes for two papers on the bryoflora of that region. Mrs. S.M. Perold assists with identifications in the moss herbarium, specializing in Ricciaceae, which she has been studying for several years. Most of her time, however, is taken up by the SEM, for which she is responsible. The technical assistance she gives to members of staff who make use of this microscope is invaluable. Mr. F.A. Brusse is in charge of the lichen collection, which he continues to enlarge and bring up to date. The collection has been moved to Room B16, where it is adequately housed at present.

SERVICE ROOM: Mrs. M. Dednam continues to attend to all specimens sent in for identification, e.g. freezing, preparing for sorting, listing and labelling for mounting. In December 1984 she was joined by Mrs.

M.Z. Heymann, who attends to all loans and exchanges. Mrs. A.M. Verhoef, who types all labels for specimens as well as parcel forms, is carrying on steadily but has a mountainous backlog (12 months) of labels to cope with.

NATAL HERBARIUM, DURBAN (NH): Identifications of plant specimens totalled 4 268, 397 visitors were received, 661 specimens were sent out on loan, and accessions to the herbarium numbered 2 672. Mr. B.D. Schrire, curator of the Herbarium and officer in charge of the Unit, completed his work on the tribe Desmodieae for his M.Sc. thesis, which has been submitted to the University of Durban-Westville. Mrs. M. Jordaan is responsible for practically all identifications. Dr. V.G. Coetzee, half-day technician who assisted Mrs. Jordaan, left at the end of April 1984 and was not replaced. Mr. A. Ngwenya, laboratory assistant, has been trained by Mr. Schrire to help with some identifications, mainly in Fabaceae. All fungus specimens were sent to Pretoria to the National Fungus Collection. The cultivated section is much improved, due to voluntary collecting of specimens in gardens and parks in the Durban area by a retired member of the public, Mr. H. Adamson. Five units of air-conditioners were installed in the herbarium building. This has enormously improved the storage environment for valuable books and specimens and has made working conditions more bearable, especially during the hot and humid summer days.

ALBANY MUSEUM, GRAHAMSTOWN (GRA): 2 567 plant specimens were identified, 893 visitors were attended to, 917 specimens sent out on loan and accessions totalled 1 898. 976 specimens were donated to the herbarium. The staff was responsible for 125 displays in the Museum foyer. Mrs. E. Brink is in charge of the Unit, and is responsible for all administrative duties, as well as part of the identification service. Dr. A.F.M.G. Jacot Guillarmod, part-time researcher, assists with identifications and displays, and is responsible for numerous publications. After spending almost the whole year in temporary quarters, the herbarium moved to new spacious offices during the last two weeks in February 1984, and is now housed in comfort. Since September 1984 a systematic effort has been made to rid the Grahamstown Nature Reserve of alien invaders encroaching along its boundaries. The herbarium laboratory assistant and general assistant are helping the Nature Reserve caretaker three days per week with the heavy manual labour. Mr. Neil Abrahams, a voluntary worker, assists with labelling and mounting of specimens, indexing of reprints, and any other work needing to be done.

During the move to the new quarters his help was invaluable, and the staff are deeply indebted to him.

GOVERNMENT HERBARIUM, STELLENBOSCH (STE): A total of 2 565 specimens was identified, 334 visitors were attended to, accessions to the herbarium numbered 2 524 and 446 specimens were sent out on loan. Mrs. C.M. van Wyk acted as curator of the herbarium, and was responsible for a great deal of administrative work, as well as doing her part of the identifications. Mrs. A.C. Fellingham, research technician, assisted with identifications and general herbarium work. Mrs. Van Wyk and Mrs. Fellingham were involved in a systematic survey of the De Hoop area under control of Krygkor, spending 4 days in the undercollected area every 4 to 6 weeks. PRE was asked to assist with identifications of the specimens collected (mainly in D wing of PRE), as STE could not possibly cope with this extra load, for which identifications were needed urgently. Staff of the unit also took part in a collecting expedition to estuaries, which are being studied by the ecologists. Collections were made of a Cliffortia which may be a new species.

(To be continued)

FLORA OF SOUTHERN AFRICA NEWS

1. Volumes published in 1985.

Vol. 4,2. Xyridaceae, Eriocaulaceae, Commelinaceae, Pontederiaceae, Juncaceae. A.A. Obermeyer, J. Lewis, R.B. Faden.

Vol. 28,4. Lamiaceae. L.E. Codd.

Palaeoflora. Prodomus of southern African Megafloras, J.M. Anderson
Devonian to Lower Cretaceous H.M. Anderson

Ancillary volume. List of Species of Southern African G.E. Gibbs Russell
Plants. Edn. 2, part 1. Recent C. Reid
literature and synonyms. (Mem. J. van Rooy
Bot. Surv. S. Afr. 51). L. Smook

2. Volumes in press.

Pteridophyta. E.A. Schelpe & N.C. Anthony.

Vol. 14. Crassulaceae. H.R. Tölken.

Vol. 31,2. Rubiaceae: Anthospermeae, Paederieae, Rubieae. Ch. Puff.

3. Manuscripts with the Editor.

Bryophyta 1,2. R.E. Magill & J. van Rooy.

Vol. 5. Asparagaceae, Agavaceae, Dracaenaceae. A.A. Obermeyer.

Vol. 8. Orchidaceae (several genera). E.A. Schelpe, N.C. Anthony,
A. Hall, H.P. Linder, K. Immelman.

FOOD FOR THOUGHT: "... Today the flow from relatively pure or abstract scientific discovery to practical application is such that science, which started out primarily as an adventure of the mind, is now becoming one of the principal pillars of our way of life. By the same token, the man of science is becoming one of the prime movers in our society... regardless of the diversity of nationalities, personalities and specialities, scientists everywhere, intentionally or not, are bound together by a common purpose; the advancement of human capabilities"

(- Frederick Seitz, Past President,
U.S. National Academy of Sciences).

A learned profession, such as that of the natural scientist, is set apart from other comparable pursuits; not merely because it lays down essential principles of conduct, but because it pitches the latter to the highest possible level of integrity, coupling it with the ability and determination to exclude from pursuing their vocation those who so act as to bring their profession in disrepute, judged by their peers in good standing.

If a profession is destroyed, or its efficiency is significantly impaired, it is the public which suffers because it is then deprived of those who not only serve with the requisite degree of skill, acquired by long training subjected to examination aimed at ensuring a requisite standard of competence, but whose paramount motivation is by inclination, precept and rule solely that of the interest of the client or employer.

An adaptation of certain principles
propounded by Sir David Napley and
quoted in De Rebus, April 1984.

REDAKTRISE/EDITOR

Mej W G Welman
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PRETORIA
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