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NUUSBRIEF VAN DIE SUID-AFRIKAANSE GENOOTSKAP VAN PLANTKUNDIGES

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NUUS VAN DIE DEPARTEMENT PLANTKUNDE, RANDSE AFRIKAANSE UNIVERSITEIT

Die departement Plantkunde van die Randse Afrikaanse Universiteit het tans 9 personeellede (5 dosente, 1 instrumentele wetenskaplike, 1 tegniese assistent, 1 tegniese dosent en 1 sekretaresse). Daar is vanjaar 171 voorgraadse en 19 nagraadse studente ingeskryf.

Huidige hoofnavorsingsaktiwiteite in die departement sluit in:

- (a) die taksonomiese waarde van alkaloiede in Suid-Afrikaanse peulplante;
- (b) die taksonomiese hersiening van die genera Dichilus, Lotononis en Rhyticarpus;
- (c) fisiologiese ondersoeke van verouderende Protea-bloeiwyses en Gladiolus-blomme en hul membraanpermeabiliteit;
- (d) vergelykende ondersoeke tussen Camarosporium en Cytospora, en
- (e) die morfologie en kariologie van Stegonosporium en Coryneum.

NEWS FROM THE BOTANY DEPARTMENT - UNIVERSITY OF NATAL,
PIETERMARITZBURG

Since the appointment of Professor van Staden as Head of Department in June 1987, the Botany department in Pietermaritzburg has entered a new era of change and growth. The past year has seen the appointment of Professor C.S. Whitehead (ex Potchefstroom), Professor C.H. Stirton (ex Kew Gardens), Dr M.E. Aken (ex Rhodes) and Dr P.M. Drennan (Natal) to the lecturing staff and Mr T.E. Edwards (Natal) as curator of the herbarium.

Research within the department, much of which is conducted under the aegis of the Research Unit for Plant Growth and Development (RUPGD), is strongly situated in the fields of physiology and taxonomy. Professor van Staden, Director of the RUPGD, is continuing with his research on the role of plant hormones in growth and development at both the cellular and whole plant levels. In addition to basic hormone physiology and the development of new techniques, the use of plant hormones in the manipulation of various growth phenomena is receiving increasing attention. Particular fields of interest are seed germination, flowering, apical dominance, and senescence. Tissue and suspension culture techniques are being developed as basic tools in understanding the molecular basis of hormonal action. A strong group has developed in the field of secondary product production and the use of culture techniques for improving crop yield. In the future more attention will be given to indigenous plants.

Professor Whitehead, whose research interests include senescence, post-harvest physiology, and plant growth regulators, is currently involved in research on ethylene sensitivity during flower senescence and fruit ripening, and the effect of gamma irradiation on ethylene sensitivity in the ripening fruit. He is also extending his work on ethylene sensitivity into the field of seed germination.

Professor Stirton's research within the fields of plant biosystematics and functional anatomy is currently centred on the biosystematics of Lanatina camara L. complex, Rubus and Apium; monographic studies on South American Sophoroid Leguminosae and African Psoraleoid legumes; as well as petal anatomy, morphology, and pigment chemistry. Mr Edwards is working on the genus Argyrolobium (Leguminosae, Papilionoideae).

Dr Aken's research interest in phytoplankton and seaweed covers a broad range of approaches. He is at present working on the ultra-structure, physiology, ecology and taxonomy of primitive algae in the Chlorophyta as well as bacterial/algal interactions especially antibiosis and mutualisms.

Both Dr Beckett and Dr Drennan are currently involved in research on stress physiology with Dr Beckett studying mineral stress, and Dr Drennan, salt, water and mechanical stress. Dr Beckett is also involved in research on the ecophysiology of bryophytes and lichens, and hormonal regulation of plant nutrition. Dr Drennan's other research interests include seed germination and polyisoprene production in plants.

A large number of molecular techniques are being developed in the various research areas as well as in vitro systems. Such developments at the research level will be extended to the undergraduate level with the introduction in 1989 of a second botany major in Plant Bio- and Molecular Technology.

P. DRENNAN

POSTGRADUATE STUDIES IN BOTANY AT THE UNIVERSITY OF NATAL,
PIETERMARITZBURG

The Department of Botany to which is attached a Research Unit for Plant Growth and Molecular Biology, invites applications from suitably qualified persons for study at honours, masters and doctoral levels. Postdoctoral applications are particularly encouraged.

Bursaries are available on application to the Foundation for Research Development.

Research fields in the Department cover a wide range of topics including:

Plant growth regulators and their mode of action
Senescence and postharvest physiology
Tissue culture and molecular and biotechnology
Secondary plant products

Polyisoprene production in plants
Ecophysiology and stress physiology
Plant interactions with other organisms
Pollination biology
Plant breeding systems
Taxonomy of lower and higher plants
Phytogeography and plant conservation
Plant anatomy and ultrastructure
Biology of weeds
Seed biology

Expansion into other fields is possible so that specific projects can be tailored to suit applicant's or sponsor's interests and expertise.

For further information contact:

The Head of the Department of Botany
or

The Director of the UN/CSIR Research Unit for Plant Growth and Molecular Biology

Department of Botany
P.O. Box 375
Pietermaritzburg 3200
SOUTH AFRICA

Telephone 0331 - 63320 x 130 to arrange a visit or interview.

NEWS FROM THE BOTANY DEPARTMENT OF THE UNIVERSITY OF
PORT ELIZABETH

The Botany Department at the University of Port Elizabeth, because of its favourable location, has placed considerable emphasis on marine botany, both at the teaching and research levels. Prof. Guy Bate, who is head of the Department, has been responsible for instigating most of the research into the microalgae, while Dr Bruce Robertson, who is a senior lecturer and is currently Director of the Institute for Coastal Research at UPE, has concentrated on the macroalgae.

Marine phytoplankton work has involved the organisms associated with sandy-beach ecosystems, with particular emphasis being placed on the dominant phytoplankton species, Anaulus birostratus.

Dr Bernard Talbot has recently joined the academic staff after completing a PhD, under Prof. Bate, in which he produced a detailed description of the population dynamics of A. birostratus. His research included the characterization of the hydrodynamic forces which control the movement of A. birostratus, keeping it in the narrow strip of coastal water where waves break.

A relatively new project being undertaken by the department involves a comparative survey of sandy beaches along the southern African coastline. The biomass, species composition and photosynthetic characteristics of surf-zone phytoplankton from around the coast are being investigated by Dr Eileen Campbell. Mrs Pat Smailes and Mrs Kerry Bate are involved in identifying the phytoplankton species associated with the sandy-beaches and Dr Talbot is undertaking the analyses of the data.

Mr Derek du Preez, a lecturer in the department, is attempting to understand why Anaulus birostratus is the dominant species in the surf-zones along the south coast of South Africa.

Prof. Bate is supervising investigations into the relationship between dunes and beaches. A strong link between surf-zone patches of Anaulus birostratus and the presence of large dune-fields has been observed. The role of ground-water flow associated with dune-fields and its relevance in the support of the high phytomass concentrations of sandy beach surf-zones is being studied.

Mr Thomas Hilmer is currently investigating the methodology suitable for the estimation of phytoplankton primary production in estuaries, using the Sundays River estuary as an example.

The Department of Botany is also involved in low key monitoring of the estuaries around East London. Dr Talbot has been making regular trips to East London to monitor the return of macroalgae to selected estuaries following the recent flooding, during which the entire population of macroalgae was removed.

Ms Wendy Knoop has been investigating the primary productivity of the macroalgae of Algoa Bay. In situ methods of measuring primary production are difficult and she is following the simulated in situ or modelling approach. In doing this, she has characterized the photosynthetic responses of the macroalgae with respect to light, temperature and nutrients.

Ms Laura Munnik has recently completed a community analysis of intertidal macroalgae on the rocky shores west of Port Elizabeth, while Mrs Petro van Zyl is investigating the effect of herbivores on recruitment and succession of intertidal macroalgae.

Dr Robertson is directly involved in studying sporogenesis and propagule production in red algae as well as investigating the factors determining gel strength of agar extracted from Gelidium pristoides.

The only terrestrial botany is being undertaken by Mr Brian Whiting who is also a lecturer in the department. He is studying the ecophysiology of Opuntia aurantiaca a noxious weed, commonly known as 'jointed cactus'. He has recently expanded his interests to include Portulacaria afra, an important succulent plant found in the Karoo.

Dr Ria Olivier retired at the end of 1987, after nearly 20 years of dedicated service to the Department. The University's herbarium now bears her name. Her position as curator of the herbarium has been taken over by Mr Don Grierson who is presently completing a PhD on the phytoplankton of the Swartkops estuary.

NEWS FROM THE BOTANY DEPARTMENT NATAL UNIVERSITY,
DURBAN -

1. PHOTOSYNTHETIC NITROGEN METABOLISM RESEARCH UNIT (PNMRU)

Professor C.F. Cresswell (Director: PNMRU) has recently taken up the position of Vice-Principal of the University of Natal, Durban Campus, and has affiliated the PNMRU with the Biology Department. Mr Derek Watt and Dr Paula Watt have joined us here in Durban to continue research efforts in the relationship/s between carbon and nitrogen metabolism.

Drs Norman Pammenter and Alan Amory will also be involved in the research programme of the Unit. They attended the Royal Society (London) meeting 'New vistas in Photosynthetic Research' on 25 and 26 May 1988. While overseas, they visited Professors N.R. Baker (Department of Biology, University of Essex, Colchester), E.C. Cocking (Plant Genetic Manipulation Group, University of Nottingham) and H.P. Fock (Fachbereich Biologie, Universität, Kaiserslautern, F R G).

2. INTERNATIONAL BOARD FOR PLANT GENETIC RESOURCES

The International Board for Plant Genetic Resources (IBPGR) held a closed workshop on Embryo Conservation of Recalcitrant Species at Kew at the end of June. Professor Patricia Berjak attended this Workshop by invitation, where she was accompanied by Miss Jill Farrant. The aim of the meeting was to define the state of the art as regards this economically important, but hitherto unstorable genetic resource, and to plan for co-operative work on an international basis.

3. VISITORS

Professor V R Smith (Department of Botany, University of the Orange Free State), whilst on sabbatical leave, is spending the second half of this year working with Dr Norman Pammenter, studying the ecophysiology of local dune flora.

4. SITUATIONS VACANT

Studentships and/or Assistantships will be available as from 1 January 1989 for research on the problems associated with seed storage, and one Studentship is currently available. Interested persons should write to Professor Patricia Berjak (Department of Biology, University of Natal, King George V Avenue, Durban 4001) enclosing a curriculum vitae, and the names and addresses of two academic referees.

A. AMORY

NUUS VANAF DEPARTMENT PLANTKUNDE, UNIVERSITEIT VAN
PRETORIA

BESOEKERS EN BESOEKE

1. PROF. KARL ESSER

Prof Karl Esser, hoof van die Department Plantkunde, Ruhr-Uni-

versiteit, Bochum, Wes-Duitsland was vanaf 1988.04.18 vir 2 weke ons gas gewees. Hy spesialiseer in die genetika en biotegnologie van fungusse en was in 1987 die president van die 13e Internasionale Botaniese Kongres wat in Julie/Augustus in Wes-Berlyn gehou is.

2. PROF. N. GROBBELAAR

Prof. N. Grobbelaar het die 7e Internasionale kongres oor stikstofbinding van 13 - 19 Maart 1988 in Keulen, Wes-Duitsland bygewoon. Sowat 700 persone het die kongres bygewoon.

3. PROF. ALBERT EICKER

Prof. Albert Eicker is as hoofspreeker uitgenooi na 'n kongres/werksessie oor die patologie van die verboude sampioen, Agaricus bisporus. Die byeenkoms het van 28 - 30 Maart 1988 by die Universiteit van Kent, Canterbury, Engeland plaasgevind. Terwyl Prof. Eicker in Brittanje was, het hy van die geleentheid gebruik gemaak om verskeie navorsingstasies en ook sampioenproduksie-eenhede te besoek. In die Republiek van Ierland het hy, afgesien van 'n besoek aan die Kinsealy Research Station (beskermdes gewasse, insluitende sampioene) van die Ierse Departement van Landbou ook die baie interessante Ierse Sampioenverbouingsbedryf bestudeer. 'n Aantal groot sentrale komposvervaardigers voorsien volledig-deurgroeiende kompos aan 'n groot aantal klein privaatprodusente. Dit is meestal klein familie-eenhede wat hul inkomste uit skaapboerdery aanvul. Hierdie 'satellietkwekers' het gewoonlik drie tot vier plastiektonnels waarin die sampioene gekweek word. Die sentrale komposteerder koop die sampioene terug van die kwekers en behartig die verspreiding. Dit is 'n suksesverhaal wat grootliks bygedra het dat die ekonomiese toestand van talle relatief arm boere dramaties verbeter het. Dit is 'n sisteem wat moontlik met vrug in ons land, veral in die tuislande, toegepas kan word.

ERKENNING VIR MEJ. I. VON TEICHMAN UND LOGISCHEN

Mej. I. von Teichman und Logischen, Senior Navorsingsbeampte, Margaretha Mes Instituut vir Saadnavorsing, is op grond van haar publikasies in die *Botanical Journal of the Linnean Society* verkies tot 'Fellow of the Linnean Society of London', F.L.S. Die publikasies het voortgespruit uit haar projek 'Vrug- en saadontogenie van die

suider Afrikaanse Anacardiaceae'. Die werk het duidelik bevestig dat saad- en vrugkenmerke waardevolle taksonomiese kriteriums is, en bewys dat hulle by die Anacardiaceae op die generiese vlak van diagnostiese betekenis is.

P.D.F. KOK

NUUS VAN DIE DEPARTEMENT BOTANIE, UNIVERSITEIT VAN
STELLENBOSCH

Personeel

- J.A. de Bruyn, Sci. Nat., M.Sc.(S.A.), Ph.D. (Chicago),
Professor en Vise-Rektor
- J.J.A. van der Walt, Sci. Nat., M.Sc., B.Ed., D.Sc. (Pret.),
Professor en Hoof van Botaniese Tuin
- J.H. Visser, Sci. Nat., B.Sc. (Unisa), M.Sc. (P.U. vir C.H.O.)
Dr. Sc. Agr. (Göttingen), Professor
- J.H. Jooste, M.Sc., Ph.D. (Stell.), Senior Lektor
- J.E. Watts, M.Sc., Ph.D. (Stell.), Senior Lektor
- C.Boucher, Sci. Nat., Hons-B.Sc. (Stell.) M.Sc. (Kaapstad), Ph.D.
(Stell.), Senior Lektor
- P.J. Vorster, M.Sc. Agric., D.Sc. (Pret.), Senior Vakkundige
- R.B. van der Merwe, M.Sc. (Stell.), Lektor
- A.D. Spreeth, M.Sc. (Stell.), Lektor
- Mej. E.M. Marais, M.Sc. (Stell.), Lektrise

Prof. de Bruyn is verlede jaar bevorder tot Vise-Rektor (Bedryf). Hy gee egter nog steeds klas vir honneursstudente. Drr Watts en Boucher is verlede jaar bevorder tot senior lektore en dr Vorster tot senior vakkundige. Proff. Visser en Van der Walt roteer op termyne van twee jaar as voorsitter van die Departement. Prof. Van der Walt is tans die voorsitter.

Studentegetalle 1988

Doktorsgraadstudente 12; M.Sc.-studente 19; Honneursstudente 15;
Derdejaarstudente 50; Tweedejaarstudente 85.

Eerstejaarstudente

Botanie I	:	250 (jaarkursus)
Biologie Landbou en Bosbou	:	160 (semesterkursus)
Biologie Geneeskunde	:	270 (semesterkursus)
Biologie Arbeidsterapie	:	35 (45 voorlesings)

Navorsingsaktiwiteite

Nieteenstaande groot studentegetalle en 'n gevolglike swaar doseerlading, is die navorsingsuitset van die Departement goed. Verlede jaar het 19 navorsingspublikasies van personeellede in vaktydskrifte verskyn.

Navorsingsaktiwiteite in die Departement kan soos volg saamgevat word:

1. Parasitiese Blomplante

Prof. Visser is reeds vir jare besig met die navorsingsprojek oor parasitiese blomplante, en hy gee op die oomblik aandag aan die volgende aspekte:

- Saadontkieming: natuurlike- en sintetiese stimulant word bestudeer in samewerking met twee studente van die Universiteit van Heidelberg, Wes-Duitsland (mnr Hauck & mej. S. Müller).
- Struktuur en funksie: die ultrastruktuur van die houstorioms en sogenaamde hialiene liggaam word in samewerking met prof. Kollmann en dr I. Dörr van Kiel, Wes-Duitsland, bestudeer.
- Oordrag van metaboliete tussen gasheer en parasiet.
- Algemene Fisiologie waaronder waterverhoudings, meganisme en CO₂-fiksering en gasheergebondenheid.

2. Plantbiotegnologie

Hierdie navorsing word ook onder leiding van prof. Visser gedoen. Dr. Y. Page-Pike bestudeer mikropropagering en vitrifikasie van ornamentele plante. Mej. I. Trautmann se Ph.D.-studie gaan oor enkelsuspensiekultivering van Parthenium argentatum (guayule). Dr J.E. Watts en drie M.Sc.-studente (mnrre P. Viviers, R. de Villiers en mej. Kritzinger) is ook ingeskakel by die selkultuurgroep.

Die vorming van sekondêre metaboliete met behulp van selkulture

vorm die hoofonderwerp van die plantbiotegnologie-program en sluit onder meer Catharanthus roseus (alkaloïde), Sesamum indicum (karotenoliede) en Phaseolus vulgaris asook Vigna unguiculata (ontklemingstimuleerders van parasitiese blomplante) in.

Hierbenewens is protoplast-isolering van verskeie plantsoorte suksesvol deurgevoer met die oog op verdere ondersoeke van geïsoleerde protoplaste.

3. Minerale Voeding

Navorsing hieroor kan in drie afdelings verdeel word, naamlik, 1. die minerale voeding van lede van die fynbosgemeenskap, 2. die minerale voeding van plante onder spanningstoestande, en 3. die meganisme van mineraalsoutopname. (Veral oor laasgenoemde het die studente, dr J.H. Jooste self baie navorsing gedoen).

Wat 1. betref word navorsing tans deur mnr M.J.T. Botha as Ph.D-studieonderwerp voortgesit. Die minerale voeding van halofiete (punt 2) was die onderwerp van mnr L.M. Raitt se Ph.D-studie, en word tans voortgesit as M.Sc-studie deur mej. A. Marais (karooplantegroei) en mej. T. Becker (riviermondplantegroei). Mnr J. van As het die meganisme van sinkopname (punt 3) as M.Sc-onderwerp ondersoek.

4. Ekologiese navorsing

Dr Boucher is die enigste dosent in ekologie en hy is besig om 'n groep nagraadse studente om hom saam te trek. Sy navorsing is veral gekonsentreer op die flora en plantegroei van die Fynbos- en Karoobiome. Hy is self besig met opnames in die Wes-Kaapse Kusvlakte en Du Toitskloof. Nagraadse studente maak onder sy leiding plantegroei-opnames in die volgende gebiede.

- Knervlakte noord van Vanrhynsdorp (mej. C. Greeff)
- Houwhoek (mej. M. Stindt)
- Gouriqua wes van Gouritzriviermond (mnr D.G. Willems)

Outekologiese studies word onderneem op die Bruniaceae (mnr J. Nel & S. Gous) en Lauraceae (mnr W. Lubbe). Dr Boucher tree op as projekleier vir die Flora van Namakwalandprojek (mev. G. Court en mej. A. le Roux) en die projek by De Hoop Natuurreservaat (mnr C. Burgers).

Prof. Visser tree ook op as leier van twee projekte onder die Nasionale Programme van die WNNR. Mev. A. Botha bestudeer lugbesoedeling in die groter Kaapstad-gebied vir 'n Ph.D-graad. Mnr A. van der Merwe, 'n M.Sc-student, is ingeskakel by die Karoooboomprojek en bestudeer die voortplantingsbiologie van karoïede plantegroei.

5. Taksonomiese navorsing

Benewens die Pelargoniumprojek waarby prof. van der Walt, dr Vorster, mej. Marais en nagraadse studente (mnr Scheltema en M.Buys en mej L. Dreyer) betrokke is, word daar ook deur nagraadse studente op die volgende families gewerk: Anacardiaceae (mnr R.O. Moffett) Asteraceae (mnr M.A.N. Müller), Zygophyllaceae (mev. L. van Zyl), Thymelaeaceae (mev. J. Beyers) en Celastraceae (mej. R. Rabe).

'n Multidissiplinêre benadering word met die taksonomiese navorsingsprojekte gevolg. Die Pelargonium navorsingspan werk ten nouste saam met die twee buitelandse Sitogenetici (prof. F. Albers, Universiteit van Münster, en dr M. Gibby, Britse Museum, London) en 'n biochemikus van Réunioneiland (mnr F. Demarne).

Benewens dr Vorster se betrokkenheid by die Pelargoniumprojek, doen hy ook navorsing op die taksonomie van die genus Encephalartos en gedurende die eerste semester 1988 het hy 'n ekskursie na Transvaal en Natal onderneem om veldwerk te doen. Hy werk ook aan 'n handboek oor die Suid-Afrikaanse Amaryllidaceae en op die oomblik is hy besig met die genus Cyrtanthus.

6. Vergelykende anatomiese navorsing

Mnr A.D. Spreeth was gedurende die tweede semester 1987 met studieverlof. Tydens sy studieverlof het hy op die volgende drie projekte gewerk wat tans nog voortgesit word:

- Anatomiese studie van die nektarkliere van Strumarilinae (Amaryllidaceae)
- Anatomiese en skandeerelektronmikroskopiese studie van die hidatode van sekere Blechnum-spesies
- Anatomiese studie van die blare van 94 Ericaceae-spesies van 21 verskillende genera.

Algemeen

Prof. van der Walt is in September 1987 uitgenooi om as hoofspreker op te tree tydens 'n internasionale simposium oor Pelargonium wat in Koblenz, Wes-Duitsland gehou is. In Oktober 1987 was hy vir twee weke die gas van mnr Demarne op Réunion-eiland. Mnr Demarne is 'n biochemikus wat gaschromatografiese analises van die essensiële olies in Pelargonium maak. Tydens die besoek aan die eiland het hy en mnr Demarne die beplanning gedoen vir verskele gesamentlike publikasies.

Die derde volume in die reeks 'Pelargoniums of Southern Africa' deur prof. Van der Walt en dr Vorster, het in Mei vanjaar verskyn. Die kunstenaar wat die waterverftekeninge vir die boek gemaak het, is weereens Ellaphie Ward-Hilhorst. Die boek is deur die Nasionale Botaniese Tuine gepubliseer, en dit is op 25 Mei 1988 deur Minister G. Kotzé by Kirstenbosch bekend gestel.

Mej. Marais het gedurende Desember 1987 - Januarie 1988 'n baie geslaagde buitelandse studietoer onderneem in verband met haar hersiening van die seksie Hoarea van Pelargonium. Sy het verskillende herbariums in Europa en Brittanje besoek, en op uitnodiging 'n lesing oor die seksie Hoarea by die British Museum gegee.

Prof. J.H. Visser is pas terug van studieverlof uit die buitenland waar hy as gasprofessor aan die Instituut vir Organiese Chemie aan die Universiteit van Heidelberg vir ses maande saam met prof. dr H. Schildknecht en twee doktorsgraad-studente die isolering en chemiese karakterisering van die ontkleimingstimulante van Alectra vogelii wat deur die gasheerwortels, Vigna unguiculata vrygestel word, gedoen het. Tegelykertyd is ook die ontkleimingstimulante van Striga asiatica vanuit Sorghum ondersoek. Na afloop van hierdie tyd het hy saam met prof. dr. R. Kollmann en dr Inge Dörr die verskynsel van verdraagsaamheid en bestandheid van verskele verteenwoordigers van die Fabaceae teenoor die wortelparasitiese Alectra vogelii aan die Universiteit van Kiel in die Departement van Plantkunde ondersoek.

Gedurende hierdie tydperk van studieverlof het prof. Visser ook die Internasionale Botaniese Kongres in Berlyn bygewoon waar hy as

organiseerder en voorsitter van die simposium oor Parasitiese Blomplante opgetree het. Na afloop van hierdie kongres het hy die Internasionale Simposium oor Parasitiese Blomplante in Marburg bygewoon en drie voordragte en vyf plakkaatreferate gelewer. Tydens hierdie simposium is besluit dat die volgende simposium oor hierdie onderwerp in Suidelike Afrika, moontlik Botswana, gedurende 1990 gehou sal word. Prof. Visser is tot die reëlingskomitee verkies en opgedra om die nodige plaaslike reëlings vir hierdie simposium te tref.

Ten tyde van sy verblyf in die buiteland het prof. Visser ook verskeie kollegas in Wes-Duitsland, Oostenryk, Nederland en Engeland op uitnodiging besoek en voordragte oor sy navorsingswerk gelewer, naamlik:

Prof. dr H. Ziegler, Inst. für Botanik, Technische Universität, München.

Prof. dr M.H. Zenk, Inst. für Pharmazeutische Biologie, Univ. München.

Prof. dr. G. Glatzel, Inst. für Forstbotanik, Bodenkundl. Univ. Wien.

Prof. dr. H. Fock, Inst. für Botanik, Univ. Kaiserslautern.

Prof. Dr O.L. Lange, Inst. für Botanik, Univ van Würzburg.

Prof. Dr B. Zwanenburg, Organisch-Chemische Inst. Univ. van Nijmegen

Mnr C. Riches, Dept. of Weed Biology, Rothamstead Experimental Station.

Dr H. Retzlaff, BASF, Limburgerhof Navorsingstasie.

J.J.A. VAN DER WALT

FESTIVAL YEAR AT KIRSTENBOSCH

The National Botanic Gardens celebrates its 75th Anniversary in 1988 and Kirstenbosch, the founder garden, is the centre of festival activities. A number of congresses have been held already and in August/September the IUCN Conference on the role of Botanic Gardens in Conservation will be an important festival event. Shows and exhibitions both at Kirstenbosch and in the city include an exhibition of botanical illustrations by Cape artists that is on display at the City Hall through July and August, displays at the S.A. Museum and Cultural History Museum and an exhibition of photographs from the NBG archives.

The major festival event will be Fleur du Cap Flora '88 in the Good Hope Centre (2nd - 6th September). This promises to be even more spectacular than the successful Flora '83 that attracted more than 70 000 people to the 'biggest exhibition of indigenous flora ever held in the country'. Once again, the theme will be Conservation through Education and nearly 50 exhibitors will be involved. Apart from the Cape's main floral regions, major exhibitions will also be contributed by the provincial departments of Nature Conservations, SATS, the SADF, municipalities, educational institutions and several flower and nature conservation organisations, to name but a few.

One of the most interesting new exhibitors will undoubtedly be SWA/Namibia in the landscape section. Here the emphasis will centre on the Namib's unique ecosystem and how it has been influenced by the presence of man. Escom's exhibit of its reclamation of strandveld in the vicinity of Koeberg, the country's first nuclear power station at Duinefontein on the Cape West Coast, also promises to generate considerable interest. The SADF's participation includes a photographic display of its role with regard to veld erosion, revegetation and management. The Wild Life Society will focus on alien control and the National Parks Board will exhibit a scale model of the fauna- and flora-abundant Langebaan National Park.

Encouraging news is the participation of the major municipalities of Johannesburg and Pretoria as well as Durban, who will be present despite the recent disastrous flooding in their area. The main specimen stand will be an exhibit certain to attract a great deal of attention. About 4 000 individually named specimens will be on show. Spectacular indigenous flora and landscape exhibits may be viewed in the Main Hall of the Good Hope Centre and on the lower level, visitors will have the opportunity to see arrangements created from the indigenous flora. Here South African participants in the recent World Flower Show in Brussels, Belgium, will be present to show their worth.

Invited commercial exhibitors will have on sale South African botanical art, antiques, Africana, fresh indigenous and exotic flowers and plants, dried flower arrangements, potpourries, herbal remedies and - to crown it all - there will be tasting of Fleur du

Cap's superb wines! One of the major attractions will undoubtedly be the multi projector audio visual show in the Drommedaris Hall. It will feature the theme of Fleur du Cap Flora '88, Conservation through Education. Non-landscaped exhibits include posters, models and photographs.

The organisers hope that Fleur du Cap Flora '88 will bring home the realisation to the more than 120 000 expected visitors that South Africa's floral heritage is a national asset and one which we should not only publicise and be proud of, but above all protect and preserve.

FESTIVAL FUNCTIONS FOR 1988

CONGRESSES

IUCN (International Union for the Conservation of Nature and Natural Resources)	28 - 31 August
Institute of Parks and Recreation Administration	30 Aug. - 2 September

SHOWS, EXHIBITIONS & OTHER FUNCTIONS

Exhibition of botanic illustrations by Cape artists in past 100 years (Civic Centre)	6 July - 2 September
Launching of new definitive series of stamps (Kirstenbosch)	1 September
'Veldkos' exhibition, Lecture Hall, Kirstenbosch	25 Aug. - 7 September
Succulent exhibition	25 Aug. - 7 September
Fleur du Cap Flora '88 : Good Hope Centre	2 - 6 September
Art exhibition - Children at Art Centres	30 July - 7 August
S.A. Library : Book exhibition	
S.A. Museum : Flora & Fauna in geological times	End September
Cultural History Museum : Flowers in our cultural heritage	30 Aug. - 14 October
S.A. Association of Artists	1 - 11 October
Photographic exhibition	8 - 18 September
Disa Show and Symposium	29 - 31 December

ANNUAL REPORT OF THE BOTANICAL RESEARCH INSTITUTE -
1st APRIL 1987 - 31st MARCH 1988

INTRODUCTION

Much progress has been made on several fronts during the year under review, in spite of the unsettling effect of the uncertainty about the future of the Botanical Research Institute (BRI). The efforts of the Advisory Committee for Botanical Research, supported by the Management of the BRI and National Botanic Gardens of South Africa (NBG), towards rationalizing state and semi-state botanical activities in South Africa, have received a setback as a result of recommendations made in the Commission for Administration's report to which the Department of Agriculture and Water Supply has reacted. Even though the matter could still be regarded as sub judice it has become general knowledge that the BRI may be fragmented and that it may cease to exist as one of the major botanical research organizations of international importance in the Southern Hemisphere. The fragmentation of the BRI would be a major disaster and would cripple the development of botany in this country. There is little doubt on the other hand, that the proposed process of rationalization of existing botanical activities in state and state-supported organizations, including the amalgamation of the BRI and the NBG to form a new national botanical organization, would produce major benefits for all concerned. It is to be hoped that a solution compatible with national interests will be found.

A positive, but nevertheless very disruptive event during this year was the installation of air-conditioning and a gas-flooding system to protect the extremely valuable and irreplaceable collections of the National Herbarium against fire. This major operation took nine months to complete and caused much disruption. It can only be ascribed to the diligence of the staff and the excellent co-operation between our staff and the builders that work could be continued and that productivity was only slightly affected. The greater safety of the collections as well as the improvement in our accommodation, due to other minor works which are being completed, are advances which will benefit the Institute for many years to come.

names reduced to synonymy, 51 new combinations, 27 orthographic corrections and six names removed because the taxa were mistakenly recorded from southern Africa.

The updating of the PRECIS database continued with more than 4 000 specimens having undergone name changes and over 3 000 having had their grid references added or corrected, and 600 specimens were deleted from the data base. Other miscellaneous changes affected 1 100 specimens.

Distribution records were significantly extended for 56 taxa, mostly at the provincial level (Transvaal, seven new taxa, OFS 10, Natal eight, Cape 19, Transkei five, Lesotho two and Swaziland one) with four new records for southern Africa.

Computerization

Applications have been developed on the Herbarium's Burroughs B28 multi-user computer system to record and manage all records involving plant identifications, specimen loans and exchanges as well as the maintenance of an up-to-date list of plant names used by PRE. These applications have been operational since July, 1987 and, in the 9 months to date, have greatly improved the efficiency of these services. Although initially somewhat apprehensive, herbarium staff, after very little training, adapted readily to computerization.

(to be continued)

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