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

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## NATIONAL BOTANIC GARDENS OF SOUTH AFRICA, COMPTON HERBARIUM:

As mentioned in a previous report to Forum Botanicum, attention has been directed towards clearing up the backlog of valuable old material inherited from the South African Museum Herbarium. This backlog has now largely been eliminated. Thousands of specimens have been incorporated since the programme was commenced just over 2 years ago and 20 500 duplicates have been distributed, mainly to the Botanical Research Institute, Pretoria. The final task in this operation is the incorporation of several thousand collections made by R.A. Dümmer in East Africa (chiefly Uganda and Mt. Elgon) during the first quarter of this century. The printed tickets have locality data and other information written on them in Dümmer's hand and the collecting numbers cover the range 3 - 4 600. Any information on the whereabouts of identification lists of Dümmer's East African material would be greatly appreciated in order to speed up the process of incorporation. Mrs. P. Fairall, who rejoined the staff after an absence of many years in Australia, has been responsible for the greater part of this work.

Research: Prof. R.H. Compton made frequent visits to the herbarium in order to tie up loose ends in connection with his "Flora of Swaziland". The typescript of this work is now in the hands of the printers and at this stage it is anticipated that the work will appear in mid-1975. It is to be published as a supplementary volume to the Journal of South African Botany (+ 750 pages).

Dr. J.P. Rourke continues to make headway with his revision of *Protea* for the Flora of Southern Africa. He has now resolved most of the taxonomic difficulties in connection with the Cape species. Recently he was invited to undertake field studies of *Protea* in the Transvaal under the expert guidance of Mrs. L.E. Davidson of the University of the Witwatersrand. Mrs. Davidson proved an outstanding guide and was able to introduce him to a number of taxonomic tangles during a two week tour of the eastern Transvaal escarpment.

Miss D.A. Snijman who joined the staff last year, is particularly interested in *Haemanthus* and is hoping to revise the local species. She is presently gathering living material of the Namaqualand and South Western Cape species which are poorly

represented in herbaria due to the fact that the leaves and flowers are produced at different seasons. These living collections are then grown at Kirstenbosch so that complete herbarium specimens with leaves, flowers and fruits can be assembled. She is continuing to add to the fine research collection of *Haemanthus* which was built up by Miss W.F. Barker over a period of many years.

Prof. T.T. Barnard, an honorary member of staff, still commutes between London and Cape Town several times a year although he looks upon Compton Herbarium as his home base from where he dispenses expert advice on Linnaean typification. He is also making a detailed study of the Tulbagh collections, sent to Linnaeus by Rijk Tulbagh, Governor of the Cape during the 18th century.

Dr. Ion Williams of Hermanus is a frequent visitor. He is making a good progress with his revisions of *Zucharia*, *Diosma*, *Macrostylis* and *Acmadenia*. Several large and historically important collections were sent to him at Kirstenbosch during the past year; notably those from the Sonder collections in Melbourne and Stockholm, the Thunberg herbarium, Uppsala and also the Paris and Copenhagen herbaria. This has enabled him to typify most of the published names in the genera which he is studying.

Visitors: Dr. Peter Goldblatt of the Missouri Botanic Garden, St. Louis, U.S.A., spent 7 months at the Compton Herbarium in 1974. Apart from undertaking extensive collecting trips to Namaqualand and South West Africa, he also carried out field studies on *Moraea* and *Galasia*. Some of his time was devoted to cytological research, principally on the Bruniaceae and other endemic Cape families.

Dr. Bertil Nordenstam and Dr. Jan Lundgren of the Natural History Museum, Stockholm, spent 6 months in the Cape during 1974. After the excellent winter rains they were able to make good collections of *Othocoma*, *Helipterum*, *Helichrysum*, *Metalsia*, *Kumbea* and *Oreithoglossum* which they are particularly interested in.

A portrait in oils (in its original frame) of Dr. C.W.L. Pappe (1803-1862) who was appointed as the first Cape Colonial Botanist in 1858, was presented to the South African Museum in 1907 by his surviving daughters. It was transferred to the Compton Herbarium, Kirstenbosch with the South African Museum Herbarium in 1956. This historically important portrait measuring 50 by 60 cm, apart from being very grimy, had unfortunately been damaged in several places before being moved to the Compton Herbarium. By kind permission of the Director of the S.A. National Gallery, Cape Town, the Pappe portrait was placed in the care of their Chief Restorer in 1973. The portrait was recently returned to Kirstenbosch, superbly restored and cleaned. Pappe now appears years younger and his tan, caused by more than 100 years of accumulated dirt, has given way to a more pallid European complexion! It was painted in Germany before Pappe came to the Cape in 1831.

DEPARTMENT OF PASTURE SCIENCE, UNIVERSITY OF NATAL:

1. During January the Department of Pasture Science, in association with the Pasture Section of the Department of Agriculture at Cedara, acted as hosts to the Tenth Annual Congress of the Grassland Society of Southern Africa. Eighty delegates and as many visitors attended the proceedings which were opened by Professor MacMillan.

A joint paper on the "Economic solution of the grazing management dilemma" by Prof. P. de V. Booysen, Dr. N.M. Tainton and Mr. B.D. Foran of the Department of Pasture Science was judged the best paper presented to the Congress.

Dr. N.M. Tainton was elected President of the Society for 1975, while Professor Booysen was re-elected to the Council.

2. The Department of Pasture Science have been granted sponsorship by the Fertilizer Society of Southern Africa to undertake a programme of research on the evaluation and management of pasture species under grazing conditions. Further financial assistance for the work has been provided by the Department A.T.S. Weeping lovegrass, a species which is widely used throughout South Africa, and Coast Cross II, a promising addition to the pasture scene in Natal, are currently under test in this programme, which will compare production over a range of stocking rates under both continuous and rotational grazing.

3. Dr. Richard Groves, Head of the Ecology Section of the CSIRO Division of Plant Industry at Canberra, Australia, is currently on 6 months sabbatical leave in the Department. Dr. Groves' visit has resulted from an awakening of interest in Australia in the conservation of natural *Themeda* grasslands, and particularly in the role of fire in the conservation of these communities. During his stay Dr. Groves is participating in the veld burning project undertaken by the Department.

4. Anglo-American continue to sponsor a programme of work on the production of beef off *Eragrostis curvula* pastures at Vereeniging. This work, which has stimulated much interest among Pasture Scientists throughout the country, promises to provide valuable information on the management of such pastures.

Mr. D.B. Foran, a Pasture Research and Extension Officer from Alice Springs, Australia, has been awarded the J.L. Irvin Rumevite Stipendium by National Chemical Products to undertake a research programme on methods of evaluating veld condition and trend. Mr. Foran will spend two years in the Department and hopes to submit the results of his work for an M.Sc. degree in Agriculture.

6. Professor Booysen has been awarded a grant by the Department of Agricultural Technical Service and enabled him to attend a congress of the European Federation of Grassland Societies held in Madrid during April 1975.

7. The Pasture Science Department continues to direct an active post-graduate school with a wide range of interest in the fields of ecology, grassland management and land-use planning. Currently, five M.Sc. and five Ph.D. students are registered in the Department. These include the following:

M.Sc. students

Mr. R. Drewes - The winter utilisation of mixed-veld using non-protein nitrogen supplements - its affect on the condition of the veld.

Mr. N. Hackland - The influence of soil fertility on the growth and nodulation of the indigenous *Trifoliums*.

Mr. G. Brockett - Methods for the evaluation of seasonal variations in productivity of pasture crops in terms of livestock products.

Mr. P. Fotheringham - The classification of agricultural land in terms of its land-use potential.

Mr. B.D. Foran - Development of methods for assessing the condition of grassveld in Natal.

Ph.D. students

Mr. J.R.C. Field-Dodgson - seed production in forage grasses.

Mr. H. Wilhelmij - the forestry potential of the northern sector of the Natal Midlands.

Mr. N.G.F. Rethman - the development of pasture feeding systems for livestock production for the south-eastern Transvaal.

Mr. W.S.W. Trollope - the role of fire in the ecology of the false thornveld of the Eastern Province.

Mr. M.G.W. Rodel - the development of dryland cultivated grass pasture systems for livestock production in the high rainfall regions of Rhodesia

DEPARTEMENT PLANTPRODUKSIE, UNIVERSITEIT VAN PRETORIA: Die jaarlikse kongres van die S.A. Vereniging vir Gewasproduksie is in Februarie 1975 te Durban gehou. Dosente en studente van die Departement Plantproduksie het vyf referate op hierdie kongres gelewer. Prof. P.C. Nel en dr. P.S. Hammes is beide herkies op die Raad van die Vereniging.

Prof. P.C. Nel het as voorsitter opgetree tydens die eerste dag van die Nasionale Kongres oor Onkruidbeheer wat op 13 en 14 Augustus 1974 in Pretoria gehou is. Prof. Nel en een van die Plantproduksie nagraadse studente het elk 'n referaat gelewer.

Prof. J.O. Grunow behartig die netto-primêre produktiwiteitstudies van die graslaag in die Savanna Ekosisteesprojek te Nylsvlei, Nylstroom. Die 3 000 ha grond vir hierdie multidissiplinêre, interinrigtingsnavorsingsprojek is deur die Transvaalse Provinsiale Administrasie gekoop, en die navorsing word deur die WNNR gefinansier.

Mnr. J.W. Rabie stel gegewens oor die veebenuttingspotensiaal van grasse en ander plante uit verskillende streke van die land op 'n taksonomies sinvolle manier op vir die Gesamentlike Weidingsnavorsingspanne van die Departement Landbou-tegniese Dienste.

Dr. P.S. Hammes het gedurende die eerste semester van 1974 'n studietoer na Brittanje, Nederland en Swede onderneem, waar aandag gegee is aan verskillende aspekte van aartappelproduksie, en veral meganiese beskadiging by aartappels. Hierdie reis is moontlik gemaak deur finansiële ondersteuning van die Aartappelraad. Ten tye van die besoek is daar op uitnodiging van die Fisiologie Afdeling van die European Association for Potato Research 'n referaat gelewer op die jaarkongres te Lund, Swede. Die titel van die referaat was "Control mechanisms in the tuberization process".

Mnr. E.A. Beyers, Tegniese Assistent in die Departement Plantproduksie het gedurende Junie 1974 Fitotroninrigtings in Engeland, Nederland en Frankryk besoek.

In die Departement Plantproduksie se navorsingsprogram word veral klem gelê op besproeiing-, bemesting- en wisselbousudies; chemiese onkruidbeheer; die rol van omgewing in gewasproduksie (insluitende basiese werk in 'n doeltreffende klein fitotron); en weidingsekologie.

Onlangs is mnr. N.H.S. Smit aangestel in 'n voltydse navorsingspos in hierdie departement. Hy sal hom veral besig hou met chemiese onkruidbeheer. Sy aanstelling bring die mannekrag in die departement nou op 10 te staan - daar is 5 doserende personeellede en 4 tegnisi.

AFDELING NATUURBEWARING, O.V.S. PROVINSIALE ADMINISTRASIE: Plantkundige projekte wat in hierdie Afdeling aandag geniet, is die volgende:

(i) Die plantekologie van die panne van die westelike O.V.S. word ondersoek, terwyl daar aandag gegee word aan die pedologie. Hierdie projek nader voltooiing.

(ii) 'n Projek oor die verspreiding en status van beskermdede plante van die O.V.S. is daarop gemik om wetenskaplike inligting in te win oor die plantsoorte wat volgens Ordonnansie tot beskermdede plante verklaar is.

(iii) Die plantegroei van al die reservate onder die beheer van hierdie Afdeling

sal mettertyd ondersoek en beskryf word volgens die metode van Braun-Blanquet. Daar is reeds ver gevorder met die ondersoek van die Krugersdriifdam Natuurreservaat aan die Modderrivier naby Bloemfontein. Daar sal binnekort 'n begin gemaak word met die ondersoek van Willem Pretorius-wildtuin naby Winburg. Daarna sal die ander reservate aan die beurt kom.

Vakature: Daar bestaan 'n vakature vir 'n plantekoloog (Vakkundige/Senior Vakkundige Beampte) in die Afdeling Natuurbewaring van die O.V.S. Provinsiale Administrasie. Belangstellendes kan meer besonderhede verkry van die Direkteur van Natuurbewaring, Posbus 517, Bloemfontein, 9301.

THE SOUTH AFRICA NATURE FOUNDATION: The A.G.M. of the Foundation was recently held in Somerset West when the President, Dr. Anton Rupert, gave his report for 1974. Since its inception in 1968 the Foundation has made a significant contribution to the conservation of the natural heritage of Southern Africa, and indeed of the world.

During 1974 the Foundation financed a number of projects to the amount of R83 384 bringing the total of grants and donations since its inception to R625 000. Most of the projects concern animals. In 1974 the ecological survey of Gorongosa National Park, Mozambique and the establishment of nature reserves in the Great Karoo has some botanical significance. Applications for financial assistance with projects are considered at regular intervals by the Foundation.

The Foundation has a Scientific Advisory Committee consisting of Dr. R. Knobel (Chairman), Mr. K.H. Cooper, Mr. B. de la Bat, Dr. S.S. du Plessis, Prof. F.C. Eloff, Mr. J. Geddes-Page, Dr. D. Hey, Mr. P. le Roux, Prof. H.B. Rycroft and Dr. C. van Bergen.

Through its affiliation the Foundation has helped to strengthen the World Wildlife Fund and its sister organisation, the International Union for the Conservation of Nature and Nature Resources.

The 1001: A Nature Trust was launched in 1971 by H.R.H. Prince Bernhard of the Netherlands, president of the World Wildlife Fund. The response by individual South Africans to "The 1001" has <sup>given</sup> great impetus to the work of the Foundation. With 71 members contributing a total of R480 000, South Africa is fourth on the world-wide list of a thousand contributors from 47 countries. The 1001 assists in meeting the basic operating and scientific costs of the World Wildlife Fund and its national appeals, including the S.A. Nature Foundation.

RESERVATE OP DIE STELLENBOSCHVLAKTE:- Die dorp Stellenbosch is geleë op 'n vlakte van ongeveer 10 vk km. Die plantegroei van hierdie vlakte het bekendheid verwerf deur die groot aantal artikels wat dr. A.V. Duthie tussen 1916 en 1940 daarvoor geskrywe het. Dr. Duthie was van 1902 - 1939 dosent in plantkunde aan die Universiteit van Stellenbosch.

Deur haar bydraes het die Stellenboschvlakte waarskynlik plantkundig die besbekte area in Afrika geword. Haar twee omvattende bydraes tot die kennis van die plantegroei en flora van die vlakte het in 1929 en 1930 in die Annale van die Universiteit Van Stellenbosch verskyn.

Die soorte op die vlakte het sy intensief versamel en het die kern gevorm van die herbarium van die distrik van Stellenbosch. Teen 1940 was daar alreeds meer as 1 000 soorte van die vlakte in die distriksherbarium. Die Universiteit van Stellenbosch is op die vlakte gebou en het die vlakte as 'n opelug-laboratorium vir die departement van plantkunde gedien.

Namate die dorp uitgebrei het, het die gedeelte met natuurlike plantegroei gekrimp en het die gevaar ontstaan dat die departement van plantkunde sy "opelug-laboratorium" gaan verloor. Prof. P.G. Jordaan het gevolglik in 1957 voorgestel dat die universiteit 'n gedeelte van die vlakte wat onder sy beheer is, as 'n plante-reservaat moet bewaar. Die universiteit het daartoe ingewillig en vandag word die natuurlike plantegroei in 'n klein reservaat van ongeveer 2,50 hekaar - die Duthiereservaat - bewaar. Deur mnr. I. Kruger is die soorte in die reservaat intensief versamel en meer as 350 soorte is reeds op die klein oppervlakte gevind, onder meer, twee soorte van *Isoetes* en *Salaginella pumila*. *Ophioglossum bergianum* het ook voorheen in die area voorgekom.

As gevolg van 'n erflating van mnr. Jannie Marais, die groot weldoener van Stellenbosch, het die Stadsraad in 1918 besluit om ongeveer 25 hektaar van die Stellenboschvlakte vir 'n openbare park, bekend as die Jan Marais Park, te reserveer. Die area was te groot om as 'n park te ontwikkel en oor 'n groot oppervlakte het die natuurlike plantegroei bly voortbestaan. Deur bemiddeling van mnr. A.P. Venter, voormalige L.P.R. en L.U.K., is die Jan Marais Park in 1962 deur die Kaaplandse Departement van Natuurbewaring tot die Jan Maraisnatuurtuin (ongeveer 23,50 hektaar groot) geproklameer. In Desember 1966 is die eerste Adviserende Raad vir die natuurtuin aangestel. Sedert die stigting van die Raad is prof. Jordaan die verkose voorsitter daarvan. Die soorte van die natuurtuin is nog nie intensief versamel nie maar, na skatting, behoort daar nagenoeg 300 soorte natuurlik voor te kom.

Die departement van plantkunde ag hom baie gelukkig dat hy binne loopafstand twee

plantreservaatjies tot sy beskikking het waar sy studente met die belangrikste elemente van die Kaapse Fynbos kennis kan maak. (P.G.J.)

MR. L.C. LEACH who is attached to the National Herbarium in Salisbury as an honorary botanist, recently visited the Republic in connection with his proposed revision of the Stapelieae for the Flora of Southern Africa. He visited the herbarium of the Albany Museum in Grahamstown, the Bolus and Compton Herbaria in Cape Town and the Karoo Gardens at Worcester to assess the availability of material. For many years Mr. Leach has worked on the euphorbias and stapeliads of Tropical South Africa with many publications on the subject.

EASTERN CAPE TREES:- A recent addition to the already large assemblage of tree books in Southern Africa has been produced privately in Port Elizabeth. It is called "Our Trees" and is a guide to some of the common trees of the Eastern Cape. It was started after a request by leaders of the Scout Movement for an easily understood and inexpensive book on indigenous trees to assist Scouts. The book was written by Gwen Skinner and illustrated by Mary Yates and contains descriptions, notes on distribution and cultivation and line drawings of 47 species. The foreword was written by Eve Palmer. For further information contact Gwen Skinner at Baaken's Glen, Cliff Avenue, Walmer, 6065.

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