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

S.A.A.B. ANNUAL CONGRESS: The 1979 Congress was held at the University of Stellenbosch from 24-27 January. Delegates were accommodated in the Majuba Hostel while the Congress itself took place in the beautiful new Music Conservatorium which is a little further down in Victoria Street. Professor J.A. de Bruyn, Dean of the Faculty of Natural Sciences of the University of Stellenbosch and former Professor of Plant Physiology, welcomed the delegates after which the Congress was opened by the Minister of Agriculture, the Hon. H. Schoeman. Most of the lectures on the first day were devoted to the theme of this Fifth Annual Congress, namely "Plants in Hostile Environments". Dr. B. de Winter, Director of the Botanical Research Institute in Pretoria, delivered a talk on "Linnaeus: The Botanist and the Man" in commemoration of his death two centuries ago last year.

Two parallel sessions were held on the second day, one which included a Seminar on Mineral Cycling (Chairman: Prof. G.C. Bate) with a mini-symposium on Phytochemistry (Chairman: Prof. E. Ramstad) in the afternoon. The parallel sessions continued on Saturday until 16h00 when the Annual General Meeting was held in the Jannasch Hall of the Conservatorium. It was announced during this meeting that the next Congress would probably be held in Pietermaritzburg, with Port Elizabeth and Pretoria as possible venues for 1980 and 1981. The new Council for 1979 was also announced which consists of the "block" for 1979/80, namely, Prof. J.A. Eloff (President, Dr. P.C. Keulder (Secretary) and Dr. H.J.T. Venter (Treasurer) and Prof. G.C. Bate, Mr. C. Boucher, Prof. C.F. Cresswell, Dr. B. de Winter, Dr. D. Edwards, Prof. N. Grobbelaar (Immediate Past President), Dr. A.F.M.G. Jacot-Guillarmod, Mr. E.G.H. Oliver, Prof. R.N. Pienaar, Prof. J.G.C. Small (Vice-President), Prof. T. Steinke, and Prof. J.J.A. van der Walt (Vice-President). Prof. Eloff and Drs Keulder and Venter are all from the Botany Department at the University of the Orange Free State in Bloemfontein.

The Annual S.A.A.B. Dinner was held at the Langenhoven Student Centre on Saturday, the 27th January. The guest speaker was the well-known Afrikaans author, nature lover and conservationist, W.A. de Klerk. On this historic occasion, two of our members received awards, namely Dr. L.E. Codd who received the South African Medal for Botany, and Mr. W. Giess who was the first recipient of the S.A.A.B. Certificate of Merit. During the Congress there were two other occasions during which delegates could meet socially, namely the Braaivleis at Plaisir de Meul belonging to the Stellenbosch Farmers' Winery and the Cocktail Party presented by the Town Council of Stellenbosch. It must be noted that this Congress was held in the year of the third centenary of Stellenbosch. The local organising committee (Chairman Prof. J.J.A. van der Walt and Secretary Dr. O.T. de Villiers) must be thanked for their excellent organisation and hard work in making this Congress such a great success. Gratitude must also be expressed to Dr. G.K. Theron who organised the exhibition of Botanical Art which was on view in the foyer of the Conservatorium during the Congress. The object of this exhibition was to obtain money for S.A.A.B. in order to establish a fund to enable young botanists to attend congresses overseas.

A number of delegates stayed on to take part in the excursion to Jonaskop in the Riviersonderend Mountains on the Sunday. Various veld types and plant communities were seen and studied on route which covered Sir Lowry's, Viljoen's, Rooighoogte, French Hoek, and Helshoogte Passes. The day was terminated by a visit to the Brian Rycroft Private Nature Reserve where, after viewing the gallant efforts to restore the natural vegetation, we were offered a sumptuous tea. Many thanks to Professor and Mrs. B. Rycroft and also to Mr. Charlie Boucher who, assisted by Dr. J. Rourke and Mr. F.J. Kruger, arranged this interesting and enjoyable day. Some members stayed on an extra week and attended Prof. Schelpe's fern course at the University of Cape Town. (W.G.W.)

FERN COURSE: Fifteen friendly fern folk fulsomely filled foolscap for five frenetically fiendish, feverish, Fahrenheit-wise, February (and January) days at U.C.T. on a pterribly ptight pteridophyte ptrial course.

Now I've run out of alliterations so:-

Easy on the words
And let's give many
Curious readers
Little clues to who
Excellently led
Some to know the ferns.

If from the foregoing you have not guessed Professor Ted Schelpe was the author, instigator and executor of the S.A.A.B. pteridophyte course, try again, and be sure, for your own enjoyment, to take the next fern course yourself. You will not get long dissertations on fern life cycles - there are a dozen text books to do this - but you will get interesting anecdotes and ecological, anatomical, morphological, historical, and other details even down to fossils, to increase your appreciation of southern African ferns and have them placed in a wider context too. Some were, I surmise, apprehensive of a 'test' at the end of the course but the real test is how much we have carried away of appreciation of, and enthusiasm for, ferns and how much our knowledge has been increased.

E.A.C.L.E. Schelpe's vast and varied experience with ferns made the informal lectures pleasant even under the very trying weather conditions of a Cape Town summer and the practical side demonstrated the points made. Careful study of our notes should make all fifteen reasonably good in field and lecture room or herbarium. I made a 'blue' in not taking a tape recorder with me, for Ted has so much to say and says it so quickly (and sometimes only to his wildly wiggling moustache, alas!) one is hard pushed to get facts and figures down. I could, having lectured on ferns, leave much out and concentrate on those details I did not know but a slightly slower pace could have helped some, no doubt.

We ranged from Psilotum to Polypodium via lycopods and Equisetum, touched on weedy species including the notorious Salvinia of Kariba and the Cape, and really enjoyed ferns, not omitting the field day at Bain's Kloof, and are now all fern fanatics. It is to be hoped all fifteen can contribute something of value to the soon-to-appear pteridophyte volume of Flora of Southern Africa - localities, at least. Thanks, Ted, we enjoyed it all, including the supper chez Schelpe where, oddly, orchids dominated! (A.J-G)

PROFESSOR P.G. JORDAAN TREE AF: Professor P.G. Jordaan het op 31 Desember 1978 uit diens van die Universiteit van Stellenbosch getree. Hy was tot sy aftrede hoof van die Departement Plantkunde, en ook hoof van die Botaniese Tuin.

Pieter Gerhardus Jordaan is op 29 Oktober 1913 te Knoflokskraal, dist. Caledon, gebore. Hy slaag die Senior Sertifikaat by die Hoër Jongenskool, Paarl in 1930. Daarna studeer hy aan die Universiteit van Stellenbosch waar hy die volgende grade en diploma verwerf: B.Sc. (cum laude) 1933, M.Sc. (cum laude) 1936, D.Sc. - 1944, S.O.D. en M.Ed. I - 1936.

Nadat hy in 1936 die M.Sc.-graad verwerf het, was plantkundige en onderwysposte baie skaars. Hy aanvaar toe, na ses maande plaasvervangende doseerwerk vir dr. E.I. Markötter, 'n betrekking as assistent vir die Direkteur van die Nasionale Dieretuin in Pretoria. In Junie 1939 het prof. G.C. Nel (destydse hoof van die Departement Botanie, Universiteit van Stellenbosch) hom die pos as lektor in plantkunde aangebied. Met behulp van 'n stipendium is reëlings getref vir 'n jaar studie in Berlyn onder prof. N. Noack. In September 1939 was hy op pad na Berlyn, maar moes weens die uitbreek van die oorlog sy planne laat vaar. Eers 12 jaar later het hy die geleentheid gekry om vir 14 maande oorsee te gaan. Hy het toe in Cambridge en Leiden studeer, twee maande in die herbarium in Kew en drie maande in die Rijksherbarium in Leiden gewerk, en plantkundige inrigtings en botaniese tuine in 'n tiental lande in Europa besoek.

In 1953 is hy aangestel as professor in plantkunde en hoof van die botaniese tuin by die Universiteit van Stellenbosch. Hy het hom met sukses beywer om beter fasiliteite vir navorsing en die Departement te kry. Die departementele biblioteek is georden en uitgebou, nagraadse laboratoria is verkry met ruim fasiliteite vir plantfisiologiese navorsing, tegnologiese navorsing, tegniese personeel is uitgebrei en sy werksaamhede so beplan dat dit 'n groter aanwinst vir navorsing kan wees. Deur sy toedoen is die grootste gedeelte van die Universiteitsherbarium aan die Staat oorgedra. Dit het die departement verlos van die tydrovende taak om herbariumdienste te lewer. Onder beheer van die Staat het die herbarium ontwikkel tot 'n lewenskragtige Navorsingseenheid wat 'n onmisbare funksie vervul in Stellenbosch.

Weens omstandighede en 'n veeleisende organisatoriese- en doserende program, het prof. Jordaan weinig tyd gekry vir navorsing op die gebiede waarin hy 'n diepgaande belangstelling gehad het. Hy het veral navorsing gedoen op die voortplanting van die proteades, die ontwikkeling van plantgemeenskappe, insluitende die invloed van brand, en verskeie artikels oor hierdie werk is deur hom gepubliseer. Hy het ook biografieë geskryf, onder meer van Rudolf Marloth, G.C. Nel en A.V. Duthie, asook Le Vaillant se skilderye van plante. In 1943 is 'n boek "Praktiese Plantkunde" deur hom gepubliseer.

Professor Jordaan was baie aktief sover dit vakverenigings aangaan: hy was 'n stigterslid van die Suid-Afrikaanse Genootskap van Plantkundiges en ook lid van die eerste Raad, hy is 'n volle lid van die S.A. Akademie vir Wetenskap en Kuns en jarelank voorsitter van die Stellenbosse Tak van die Afdeling Biologie. Hy was ook verskeie jare raadslid van die Botaniese Vereniging van Suid-Afrika. Hy dien op die Raad van Trustees van die Nasionale Botaniese Tuine as lid vanaf 1961 en as ondervoorsitter vanaf 1967. As voorsitter dien hy op die Adviserende Raad van die Jan Marais-natuurreservaat vanaf stigting in 1966.

Professor Jordaan was ook medewerker van die Woordeboek in die Afrikaanse taal (WAT). Uit sy pen het die eerste Afrikaanse artikel in die „Journal of South African Botany" verskyn. Hy het hom deurgaans ten doel gestel om die Afrikaanse vaktaal in plantkunde uit te bou.

Ons wens prof. Jordaan nog baie jare van goeie gesondheid toe. Dit is sy voorname om steeds aktief in sy vak te bly en artikels te skryf waarvoor hy in die verlede nie tyd gehad het nie. Baie dankie vir u waardevolle bydrae tot plantkunde in Suid-Afrika! (J.J.A. v.d.W)

ELSIE ESTERHUYSEN: On the 15th February 1979, Professor Rycroft gave a tea party at the guest cottage at Kirstenbosch to mark the dedication of Volume 45 of Jl. S. Afr. Bot. to Miss Elsie Esterhuysen who retired at the end of 1977 from the staff of the Bolus Herbarium, University of Cape Town. Professor Rycroft paid tribute to her as botanist, plant collector, and as a legend. He presented her with several copies of the journal, the original photograph, and a bouquet of Kirstenbosch flowers. On display were some of the over 100 type specimens collected by Elsie as well as genera and species named in her honour. The occasion was attended by local colleagues and friends, notably Professor R.H. Compton, the founder of the Journal.

VISIT OF PROFESSOR R.H. WHITTAKER TO SOUTH AFRICA: Professor Robert H. Whittaker, Professor Biology in the Division of Biological Sciences, Cornell University, visited South Africa during January. He has wide ranging interests in the field of quantitative and systems ecology and has written several text books and numerous numerical ecological papers.

Logistic support during his visit was provided by staff of the Botanical Research Institute and the Cooperative Scientific Programmes Unit of the C.S.I.R., which enabled him to carry out pattern and diversity analyses on the Savanna Ecosystem Project study site, Nylsvley, and in the Kruger National Park. Accompanied by Dr. J.W. Morris and Mr. R.H. Westfall, and assisted by some ten university students, a belt transect of 1 025 contiguous one by one metre quadrats was laid out in typical Burkea-Ochna savanna. Five similar belt transects (averaging 250 m in length) were laid out in related vegetation types at Nylsvley. These data will be analysed for pattern by means of reciprocal averaging and spectral analysis in the United States. Twelve diversity samples were taken according to Whittaker's standard method of nested quadrats. These data will be worked up together

with diversity samples taken by means of the same method from other parts of the world, including Australia, South America and the United States.

Professor Whittaker and a graduate student from Cornell, Linda Olsvig, also paid a brief visit to the South-western Cape. Miss Olsvig is concerned with the north-eastern heathland communities in the United States and is interested in northern and southern hemisphere heaths and their evolutionary backgrounds. In addition to studying fynbos physiognomy and floristics they completed two short transects (as described above) together with Mr. F. Kruger of the Forestry Department and Mr. H.C. Taylor of the Botanical Research Unit. Professor Whittaker also attended a few of the S.A.A.B. Congress sessions in Stellenbosch and collected material of sclerophyllous plants for a colleague at Cornell who is constructing a classification of sclerophylly. (J.W.M)

NATIONALE DIENSPLIG: As gevolg van 'n aansoek van die Gesamentlike Raad vir Natuurwetenskaplike Verenigings, het die Vrystellingsraad in Desember 1978 besluit dat M.Sc. studente wat voltyds studeer, onder sekere omstandighede uitstelling van hulle nasionale diensplig sal kry mits die Universiteit skriftelik waarborg dat die projek „in landsbelang" is.

APPLICATIONS FOR THE KIRSTENBOSCH JUBILEE PRIZE: The prize, worth R1 000, is financed out of the Kirstenbosch Jubilee Fund of the National Botanic Gardens of South Africa and came into being in 1963 through contributions from the public of South Africa, and is still being expanded, with the object of promoting the aims of the National Botanic Gardens, particularly research.

The object of the prize, in the first instance, is to grant botanical and horticultural contributions towards the study of the country's indigenous flora and, secondly, to promote further study/research/publication in this field.

Applications must be directed to the Director, National Botanic Gardens of South Africa, Kirstenbosch, Private Bag X7, Claremont, Cape, and must mention age, nationality and other personal particulars. Two references are required and these must be accompanied by a short curriculum vitae, certified copies of academic and professional qualifications, a list of publications, and a short exposition of concluded and planned research.

Applicants must please request those people who supply references to send confidential reports direct to the Director to reach him not later than 10 October 1979.

PUBLICATIONS: The following publications have appeared recently and are noted for the interest of members.

Biogeography and Ecology of Southern Africa: Although this extremely valuable book has been out for over a year now, it is felt that it should be advertised more fully despite its price. The book is the brainchild of editor Dr. Marinus Werger, formerly of the Botanical Research Institute in Pretoria.

Southern Africa is certainly not a naturally bounded area so that there are several possibilities for delineating it and for concepts about its extent. Wellington discussed in his 'Southern Africa: A Geographical Study' (Cambridge, 1955) the various possibilities and suggested that one line stands out more clearly and definitely as a physical boundary than any other, namely the South Equatorial Divide, the watershed between the Zaire, Cuanza and Rufiji Rivers on the one hand and the Zambezi, Cunene and Rovuma Rivers on the other. This South Equatorial Divide is indeed a major line of separation for some organisms and is also applicable in a certain geographical sense, though it does not possess the slightest significance for many other groups of organisms, ecosystems or geographical and physical features of Africa. The placing of the northern boundary of southern Africa differs in fact strongly per scientific discipline and is also influenced by practical considerations regarding the possibilities of scientific work as subordinate to certain political realities and historically grown traditions.

For this book the editor has decided not to stick to a fixed line as the northern boundary, but with Wellington's considerations in mind, he suggested to the contributing authors that they make their own choice as to the northern boundary of the area to be discussed either: (1) the southern political boundaries of Zaire and Tanzania; (2) the ninth or tenth parallel of southern latitude; or (3) the South Equatorial Divide. In this way of arbitrarily deciding on the northern limit there was no artificial rigidity in suggesting a real boundary where none exists. Thus the following areas are covered in this book: Angola, part of Shaba, Zambia, Malawi, Mozambique, South West Africa, Botswana, Rhodesia, South Africa, Swaziland and Lesotho.

Southern Africa as conceived in the book covers an enormous area of some 6,100,000 sq km and is extremely varied both in biotic and abiotic aspects. It varies in altitude from sea level to 3,482 m, though a very large part of the area consists of a fairly flat plateau over 1,000 m above sea level. The pattern of altitudinal variation as well as the other abiotic environmental factors show a strong correlation with the biogeographical patterns. This book concentrates on these patterns and their explanation in a historical and ecological way. It is a review of what is known about the biogeography and ecology of the southern Africa organisms and ecosystems.

The ecological aspects covered in this book are mainly of a descriptive nature, concentrating on diversity and variation in species and on a structural-functional evaluation.

Not only in its contents but also in its structure the present book reflects our present state of knowledge and the way we have assembled and still gather this knowledge: the botanically oriented Chapters 8 to 14 each deal with a major biome, while the zoologically oriented Chapters 16 to 31 each cover a major taxonomical group. Apart from these chapters arranged according to this dual scheme there are those (Chapters 33 to 40) on organisms and communities living in special habitats, where one environmental factor or factor complex is of overriding significance. Then there are the Chapters 15, 32 and 41 dealing with special aspects of southern Africa in general, and, of course, the introductory background providing Chapters 1 to 6.

South African botanical contributions have come from Professor E.M. van Zinderen Bakker, Mr. H.C. Taylor, Dr. B.J. Coetzee, Dr. D.J.B. Killick, Dr. E.J. Moll, Dr. M.C. Rutherford, Dr. D.S. Mitchell, Mr. N. Jarman, Professor H. Wild, and Mr. B.J. Huntley.

The book is 1,420 pages long with 189 figures, 82 tables, and is published in two volumes costing 365 Dutch guilders, and can be ordered from the publishers W. Junk, Box 13713, The Hague, Netherlands.

From the Botanical Research Institute:

Memoirs: The bryophytes of southern Africa. An annotated checklist. R.E. Magill and E.A. Schelpe. Memoirs of the Botanical Survey of South Africa, No. 43, pp. 39 (1979).
Price: R6,95 (R8,70 overseas).

In the press:

- The plant ecology of the Isipingo Beach area, Natal, South Africa. C.J. Ward;
- Phytosociology of the Upper Orange River Valley, South Africa. A syntaxonomic and synecological study. M.J.A. Werger;
- A conspectus of the African Acacia species. J.H. Ross.

Flora: Bibliography of South African Botany (up to 1951). A.A. Bullock. pp. 195 (1979).
Price: R4,50 (R5,50 overseas).

In the press:

Flora of Southern Africa, vol. 10, Part 1. Loranthaceae and Viscaceae. D. Wiens and H.R. Tölken. The work deals with about 60 infrageneric taxa and will contain 18 figures and 21 distribution maps.

The published works listed above are available from the Division of Agricultural information, Private Bag X144, Pretoria. Note: Prices exclude GST (4%).

Publication on Mycology: . Attention is drawn to the publication of "A Preliminary Agaric Flora of East Africa" by D.N. Pegler (1977). This volume, No. 6 in the Kew Bulletin Additional Series, is published by H.M.S.O. Price: £45.

Although primarily concerned with an extralimital geographical region, it does provide descriptions of many species which are either known to occur, or may be expected to, in South Africa. There are comprehensive keys to families, genera, and species; the taxa are fully described and illustrated with line drawings of habit and microscopic characters; and details of distribution are given including reference to South African records where appropriate.

It would be interesting if South African mycologists, using Pegler's book, could help to extend our knowledge of the distribution of some of these agarics southward into southern Africa.

A SYMPOSIUM ON SHAPING OUR ENVIRONMENT: This Symposium will deal mainly with the assessment and management of environmental change and will be held at the C.S.I.R. Conference Centre in Pretoria on 1 and 2 August 1979.

There is general agreement that environmental impact assessment (EIA) should form part of the planning for all major development projects. This symposium is being held to help launch EIA in South Africa and is being organized by:

the Council for the Habitat, representing the concerned public and private environmental bodies in South Africa;

E.P.P.I.C. (Environmental Planning Professions Interdisciplinary Committee), representing the planning professions (architects, landscape architects, town and regional planners, land surveyors, civil, mining and electrical engineers);

the Department of Planning and the Environment, representing Government;

the C.S.I.R. which, through its National Programme for Environmental Sciences, represents a broad spectrum of scientists and scientific and engineering disciplines;

the C.S.I.R. Conference Division which is providing the secretarial services.

The proposed aims are as follows:

- to emphasize the value of Environmental Impact Assessment (EIA) as an aid to the management of environmental change in S. Africa resulting from development;
- to examine the matrix and other EIA methods currently in use or proposed and their application to: procedures for preliminary assessments, proposed methods and guidelines for professional EIA studies, and the assessment of more extensive and complex environmental changes;
- to create an awareness of the need for long-term monitoring as a follow-up to EIA studies;
- to consider the necessary professional self-discipline, legal framework and acceptable administrative mechanisms for the effective implementation of EIA in South Africa.

The Symposium will be opened by the Minister of Planning and the Environment and will consist of a keynote address by an eminent overseas guest speaker and a series of invited plenary presentations of case studies illustrating different situations to which EIA can be applied, approaches which may be followed, principles involved and problems encountered. Discussion of each paper will be introduced by a discussion leader and will be regulated through the use of discussion cards.

Topics:

- The philosophy and methodology of EIA;	- EIA of open cast mining;
- Socio-economic impact of development in the urban environment;	- EIA of farm development;
- EIA of a major new harbour;	- Socio-psycological impact of rapid industrial growth;
- EIA of a nuclear power station;	- Legal, administrative and cost implications.

Contact address: The Symposium Secretariat S.190, Conference Division, C.S.I.R.
P.O. Box 395, PRETORIA. 0001.

S.A.A.B. OFFICE-BEARERS: This is a reminder that the Association's affairs are now managed by members of the Botany Department of the University of the Orange Free State (P.O. Box 339, Bloemfontein, 9300), namely Prof. J.N. Eloff (President), Dr. P.C. Keulder (Hon. Sec.) and Dr. H.J.T. Venter (Hon. Treas.) The Executive Committee consists of the foregoing plus Prof. N. Grobbelaar (immediate Past President) and Proff. J.G.C. Small and J.J.A. van der Walt (Vice-Presidents).

MEMBERS ARE KINDLY REQUESTED TO PLEASE NOTE THE CHANGE OF ADDRESS

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