

# FORUM BOTANICUM

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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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S.A.A.B. ANNUAL CONGRESS: This year the Congress was held at the University of the Orange Free State in Bloemfontein from 23-26 January. Of special note this year was the fact that the Grassland Society of Southern Africa held its annual congress at the same venue and shared sessions of interest to members of both bodies. This feature was a great success and points to possible joint congresses in the future where persons belonging to both societies can enjoy the activities on both sides.

The sessions of the Congress were held in adjacent lecture theatres in the superb new medical building. The welcoming address was given by the Chancellor of the University, Prof B. Kok. This was followed by the opening address delivered by Mr Arthur Healy who spoke on weed problems in New Zealand and by the recorded presidential address of Mr J H I'Ons of the Grassland Society.

Subsequently the two societies met jointly for a symposium on the system approach to ecological and agricultural research. Then followed the sessions of papers of the society's held separately.

On Wednesday 25th the Grassland Society organised a very enjoyable day's excursion to the Hendrik Verwoerd Dam visiting the farm "Hillside" en route.

Dr J W Morris of the Botanical Research Institute organised a very successful workshop dealing with plant community data capture and processing. This resulted in a plea by Prof. Walker for a natural resources data bank which was later passed as a resolution by the A G M for handing to the powers-that-be.

On the last day of the Congress a group of members visited the Orange Free State Botanic Garden under the guidance of Prof. H B Rycroft,

Director of the National Botanic Gardens. Soon afterwards those who had booked left for the 3½ day excursion to the eastern Orange Free State and Lesotho.

During the Congress the usual set of social functions took place namely receptions given by the University and by the Mayor of Bloemfontein. The S.A.A.B. annual dinner was held in very pleasant surroundings at the University's Student Centre. The guest speaker for the evening was Prof. E.M. van Zinderen Bakker. Special guests were the Chancellor of the University, the Director of Nature Conservation in the O.F.S., Mr le Roux, Mr Healy of New Zealand and Mr Hyam, Vice President of the Grassland Society. At the dinner Prof. A J Tew was presented with the Junior S.A.A.B. Medal. A special vote of thanks was given to the Committee of the O.F.S. Regional Branch for its organisation of a very enjoyable and successful Congress.

Symposium: The system approach to ecological and agricultural research with practical examples of the application and efficiency thereof.

Prof B H Walker (Wits) The ecosystem approach, Mr R I Jones (Dept Agric Tech Services, Cedara) The systems approach in agriculture, Dr J W Morris (BRI) Introduction to the discussion of Prof Walker's paper, Dr P J Edwards (Cedara) Introduction to the discussion of Mr Jones' paper.

General session: Robinson, E R (Fort Hare) An evaluation of some methods of vegetation analyses, Van Wyk, J J P (Potchefstroom) Die gebruik van die "All-in-one" tegniek om versteurde padreserves te herstel, Russell, E (Fort Hare) Ecological studies in the Bryophyte Flora of an Eastern Cape forest, Van der Meulen, F and Westfall, R H (BRI) Structural analyses of Bushveld vegetation in Transvaal, Van Rooyen, N (Pretoria) Die plantegroei van Pafuri, Kruger, F J (Forestry) Demography of a fynbos geophyte Watsonia pyramidata, Theron, G K en Viljoen, P J (Pretoria) Plantegroei van Kaokoland, Theron, G K en Visser, J H (Pretoria) Kaal kolle in die Marienfluss en op die Giribisvlakte, Kaokoland, SWA, Franklin, E F (Durban-Westville) Observations on surface characters of achenes of Scleria (Cyperaceae), Kok, P D F (Pretoria) Die omgrensing van taksons in die genus Digitaria Haller (Poaceae), Glen, H F and Morris J W (BRI) The National Herbarium Data Bank, Van Greuning, J V (Pretoria) Die omgrensing van taksons in die Ficus natalensis-groep, Van Wyk, A E (Pretoria) Taksonomiese implikasies van anatomiese kenmerke by die genus Eugenia L. (Myrtaceae) in Suid-Afrika, Glen, H F (BRI) A possible phylogenetic classification of the genera of Mesembryanthemaceae Fenzl. subfamily Ruschoideae Schwantes, Eloff, J N (OFS)

Die opname en gebruik van organiese voedingstowwe, veral aminosure en suikers deur Microcystis, Lewis, O A M (Cape Town) A comparison of nitrogen assimilation pathways in nitrophilous and non-nitrophilous plants, De Bruyn, J A (Stellenbosch) Stuifmeelontkieming en -buisgroei by Setaria sphacelata, Bate, G C (Wits) An investigation into the physiological implications of the anthocyanin pigments in spring leaves of Ochna pulchra Hook., Scott, L (OFS) Stuifmeelanalises van moeras- en vlei-afsettings in Transvaal, Coetzee, J A (OFS) Palynological evidence for significant vegetation and climatic changes in the southwestern Cape, Robinson, E R (Fort Hare) Phytogeography of the Namib Desert of South West Africa and the significance of the flora to the question of the age and uniqueness of this region, Van Staden, J (Natal, Pietermaritzburg) The distribution of cytokinins in tuberising potatoes, Davey, J E (Natal) Changes in the cytokinin levels of vegetative and fruiting white lupin plants, Van Staden, J The metabolism of zeatin and zeatin riboside by soybean callus, Groenewald, E G Voorlopige getuienis van die omsetting van arachidonsuur deur geïsoleerde groeipunte van Pharbitis nil na PGE<sub>2</sub> PGF<sub>2a</sub> en PGA<sub>2</sub>, Van Staden, J The effect of temperature on the germination and endogenous cytokinin and gibberellin levels of pecan nuts, De Meillon, S (Pretoria) Die respiratoriese gedraag van Striga asiatica-saad tydens sensitering, De Villiers, O T (Stellenbosch) Die meganisme van die werking van die onkruidodders Tribunil en Sencor.

Workshop: Plant community data capture and processing, Convenor: Dr J W Morris (BRI), Scheepers, Dr J C (BRI) Field recording of habitat and floristic data, Campbell, B (Cape Town) Field recording of vegetation structural-functional characteristics, Van der Meulen, F (BRI) The applicability of the Braun-Blanquet method for synthesis of surveys of different areas, MacDonald, I (Natal Parks Board) Sampling strategies for semi-detailed surveys - their implications for synthesis of surveys by more than one ecologist, Kruger, F J (Forestry) Automatic processing of relevé data sets, Boucher, C (BRI) Standardised description of plant communities, Müller, T (Salisbury) Ecological survey strategies in Rhodesia - present and future, March, H Botanical art, Walker, Prof B H (Wits) The need for a natural resources data bank.

General session: Pieterse, A J H (Pretoria) 'n Aftaselektronmikroskopiese studie van 'n verteenwoordiger van die genus Phacotus Perty (Chlorophyta), Eloff, J N (OFS) Taksonomie van Microcystis, Eicker, A (Pretoria) 'n Nuwe tegniek vir die loodsverbouing van eetbare sampioene, Wells, M J (BRI) A weed status survey of South Africa, Jacot-Guillarmod, A (Rhodes) Man's fellow-travellers, weeds, Healy, A (New Zealand) A pers=

pective of weed control legislation and organisation in New Zealand, Van Zyl, F D W (OFS) Ekologiese beplanning met verwysing na die bewaring van oop ruimtes, Rycroft, H B (Kirstenbosch) OFS Botanic Garden, its function and policy, Le Roux, A (Cape Nat. Conversation) Die plantegroei van die Hester Malan natuurresewaat, Namaqualand, Rösch, M W (Pretoria) Saadverspreiding by die Mesembryanthemaceae.

The JUNIOR S A A B MEDAL for Botany for 1977 was awarded to Dr A J Tew from the University of the Witwatersrand for the best doctoral thesis submitted. The thesis was entitled: A study of the influence of nitrogen on the primary products and enzyme systems associated with carbon dioxide exchange in illuminated leaves of C<sub>3</sub> and C<sub>4</sub> photosynthetic plants. Dr Tew was presented with the medal by Prof N Grobbelaar at the S A A B Annual Dinner in Bloemfontein. Dr Tew takes up his appointment this year as the first professor of botany at the new University in Umtata, Transkei.

LESOTHO EXPEDITION. A party from the Botanical Research Institute, Pretoria, comprising Drs D J B Killick and R Magill, Messrs T B Vorster & P C V du Toit, as well as Mr J H Vahrmeijer, and accompanied by Mrs L Mohapi, curator of the Maseru Herbarium, spent two weeks (1977/11/28 to 1977/12/11) collecting plants in Lesotho. The route taken using two 4-wheel drive vehicles was Maseru - the mountain road via Blue Mountain Pass, Marakabei, Thaba-Tseka and Taung - Mashai - Matebeng - Sehlabathebe National Park - Ramashek - Sani Pass - Mokhotlong - Letseng-la-draai - Oxbow - Leribe - Maseru - Roma - Mafeteng - Quthing - Point C - Ongeluksnek - Naudes Nek and back to Pretoria. Although conditions were very dry, a reasonable collection of plants was made: 850 mosses; 160 grasses and 200 other flowering plants and ferns. The collection still has to be worked up. Mr Vorster concentrated on collecting living material of Eragrostis curvula for his cytogenetic study of the E. curvula complex. Useful ecological and meteorological observations were made. One of the highlights of the trip was a 3-day stay at Sehlabathebe National Park where Dr Fred Hoehner of the U S A was our host. Dr Hoehner is collecting intensively in the Park and has built up a useful herbarium and laboratory at the Park's Research Centre.

MAGALIESBERG NATURE AREA: A major break-through in the conservation struggle occurred last year with the publication in the Government Gazette at the

proclamation of the Magaliesberg range from Rustenburg to Pretoria as a natural area. A long awaited ideal to conserve this area for future generations, and utilise it in the interest and for the benefit and enjoyment of the public in general, can now be realised.

The conservation of this range is a matter of national concern. Lying within the Pretoria-Witwatersrand-Vereeniging metropolitan area and in view of its estimated population of 5½ million people by the end of the century, the Magaliesberg grows continually in importance as a major area for outdoor recreation. By reserving this as a natural area, the first vital steps were taken towards the future development of the mountain range for this purpose, and also for the future proclamation of the summit area of the Magaliesberg range as a nature reserve

The importance of the Magaliesberg range is, however, not limited to its possibilities for outdoor recreation. It is one of the most scenic accessible areas in the Transvaal, and from a nature conservation point of view, it is also of prime importance. Apart from the interesting landforms found in this range, it provides a wide variety of habitats for numerous species of flora and fauna.

The proclamation of the Magaliesberg range does not affect any activities such as farming practised in this area prior to the date of proclamation. However, if a landowner wishes to develop other land-use activities within the proclaimed natural area, he has to apply to the Department of Planning and the Environment for a permit, which will be considered on merit.

EXOTIC TREES PROTECTED: With the accent on rare and endangered indigenous species these days it is especially interesting to note that the Minister of Forestry has proclaimed some exotic trees as specially protected. These trees all occur in Dullstroom in the Eastern Transvaal and are exceptionally fine examples of European species planted some eighty years ago. They are one copper beech, Fagus sylvatica var purpurea, four beeches, Fagus sylvatica, two lindens, Tilia platyphyllos, one European linden, Tilia europaea, and one ash, Fraxinus exelsior.

SUCCULENTA 78: This International Congress is being held from 17-22 July 1978 at the University of South Africa in Pretoria. It is being organised by the South African Aloe and Succulent Society. Apart from the proceedings of the congress proper there will be a photographic competition, succulent show, art, stamp and other exhibitions and excursions. Before the congress

there will be an excursion tour to the Northern and Eastern Transvaal and the post congress tour 24th-29 July will be to the North-western Cape and Namaqualand. Contact address : The Secretary, Succulenta 78, Box 1193, PRETORIA, 0001.

FIRST EVER PUBLICATION ON "NATURE CONSERVATION IN THE CAPE":- The Cape Department of Nature and Environmental Conservation has just published its first ever comprehensive booklet on "Nature Conservation in the Cape", to coincide with its 25th Anniversary.

This attractive 60 page booklet contains 60 colour illustrations as well as a map, useful general information and a list of provincial nature reserves in the Cape. Lists of and information on nature reserves under the control of municipalities and divisional councils as well as private nature reserves are also included.

There are also particularly interesting chapters on: the flora, the fauna and man's impact on them. Under the chapter on flora, the various ecosystems in the Cape - tropical forests, southern forests, fynbos, valley bushveld, grassveld, karoo, Kalahari thornveld and exotic vegetation - are illustrated and discussed. Under fauna there are attractively illustrated sections on mammals, birds, reptiles and amphibians, freshwater fish and invertebrates.

The remainder of the booklet is devoted to the range of activities making up nature conservation as presently practiced in the Cape. This includes: the establishment and maintenance of nature reserves, wildlife research, conservation education and extension, wildlife management, law enforcement and outdoor recreation with a short section on provincial museums which also fall under this Department's responsibility.

This booklet will be of considerable interest to anyone concerned with nature conservation and the environment. It should also prove particularly useful to teachers of general science, biology and geography, lecturers in zoology and botany, to farmers, foresters, city and regional planners, municipal and divisional council personnel, in fact, to anyone working in a biological or environmental field.

The booklets, costing R1 each can be obtained post free by writing to: The Provincial Accountant, Private Bag 9064, Cape Town 8000. (Please note that the remittance must accompany the order.) Further information on this or other publications of the Department can be obtained by telephoning Cape Town 450227 or 45 0228, or by writing to the Director, Cape Department of Nature and Environmental Conservation, Private Bag 9086, Cape Town 8000.

THIRTEENTH INTERNATIONAL BOTANICAL CONGRESS will be held in Sydney, Australia from 21-28th August, 1981 and be sponsored by the Australian Academy of Science. The Programme will consist of 12 sections - molecular, metabolic, cellular and structural, developmental, environmental, community, genetic, systematic and evolutionary, fungal, aquatic, historical, and applied botany. There will be plenary sessions, symposia, and sessions for submitted contributions (papers and posters). Chairman of the Programme Committee:- Dr L T Evans.

Field Trips will include visits to arid and semi-arid regions, eucalypt forest, rain forest, heath, coastal vegetation (e.g. Great Barrier Reef, mangroves) etc., and specialist trips. Chairman of the Field Trips Committee:- Prof L D Pryor.

First Circular, containing details, will be mailed in August, 1979. Send your name and full address, preferably on a postcard, to ensure your inclusion on the mailing list.

Enquiries should be sent to the Executive Secretary, Dr W J Cram.

Congress address - 13th I.B.C., University of Sydney, N.S.W. 2006, Australia.

10th INTERNATIONAL MICROGRAPHICS CONVENTION will be held in South Africa at the Carlton Centre, Johannesburg from Monday 18th to Friday 22nd September 1978. The programme will cater for beginners as well as for the most advanced users of micrographic sciences, technology and systems and will include plenary, workshop and poster sessions. The introduction of more sophisticated computer-assisted retrieval systems updatable microfiche, computer output microfilm/phototypesetters, colour microfiche duplicators etc will be exhibited by manufacturers. Local and overseas experts will deliver lectures on a very wide range of subjects from microfilm equipment and processing to systems analysis and design, organisation of archives, micropublishing, to uses and requirements in education, technology, and the business world.

Registration fee † R120 ! Contact address: Congress Secretariat, CSIR Conference Division (S.141), Box 395, PRETORIA.

POSTS VACANT: Professional/Senior Professional Officer in the Management Section of the Cape Department of Nature & Environmental Conservation to be stationed at Hartswater in the Northern Cape. The successful applicant will assist in the preparation and application of management plans

for nature reserves, extension services, botanical surveys and in the selection of proposed nature reserves. Applicants must have a BSc or similar science degree with Botany as major subject. Consideration will also be given to applicants with degrees in Forestry and Agriculture. Applications to the Provincial Secretary, Box 659, Cape Town 8000.

EDITOR/EDITORIAL ASSISTANT required for editing of Institute's journals. Qualifications: degree in botany, excellent command of English as well as Afrikaans and preferably with some knowledge of scientific editing. Salary according to qualifications. Interested persons please apply to Director, Botanical Research Institute, Private Bag X101, Pretoria.

WHY ARE FIRE TRUCKS RED: Fire trucks have four wheels and eight men. Everyone knows that four and eight makes twelve. There are 12 inches in a foot. A foot is a ruler. Queen Elizabeth, a ruler, was also the name of a large ship on the seas. Seas have fish and fish have fins. The Finns fought the Russians. Russians are red. Fire trucks are always rushin'. Therefore fire trucks are red. AND if you think this is wild, you ought to hear some people try to explain why they don't join S.A.A.B.

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