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

THE NATIONAL UNIVERSITY OF LESOTHO: Since 1969, the two Departments, Botany and Zoology have been combined as Biology. Biology continues to be a popular choice among students and this Department easily carried the heaviest teaching load among all other Science departments during the last year. Biology teaching load was, in fact, one of the highest in the whole University.

Academic Staff: Professor and Head - L. Machan, B.S., M.S., Ph.D. left on June 3, 1984. Worked on electromyograph feedback studies.

Associate Professors - R.H. Meakins, B.Sc., M.Sc., Ph.D. Currently Head of the Department. Working on the effects of insects on Eucalyptus plantations in Lesotho; annual productivity of crops in Lesotho using energy flow data; seasonality of gastroenteritis among children in Lesotho with special reference to child mortality. Papers in preparation: (1) Disease and environmental consequences of development with special reference to Africa. (2) Productivity of grasses in Lesotho under zero grazing.

S. Talukdar, B.Sc., M.Sc., D.Phil. Research interests in: Nitrogen fixing trees and grain legumes in Southern Africa. Conservation and location of plants under threat. CO₂ fixation in dicots at high altitudes. Working on a survey of succulent plants in Lesotho jointly with Dr. B.J. Hargreaves. In preparation: Leaf-key to woody plants in Lesotho.

Senior Lecturers - I.C. Rutherford, B.Sc., M.S., Ph.D. Member of Biological curriculum study committee for secondary schools in Lesotho. Working on grasses and collecting grasses for the University Herbarium. Continued work on clinal variation in Cardinopsis chevalieri.

B.J. Hargreaves, B.S., M.S., Ph.D. Curator of the University Herbarium and in charge of the Botanic Garden on campus. Member, Protection & Preservation Commission of the Government of Lesotho, a body set up for the conservation of plant and animal species and historical buildings and monuments. Research on the succulent plants of Lesotho. Collection and considerable addition to the Herbarium (over 600 species). Visitors to the Herbarium included Dr. H.

Hartmann, University of Hamburg, FRG, Dr. C. Vonk Noordegraff, Research Station for Floriculture, Aalsmeer, Netherlands; Ir. A.P. de Kruif, Agricultural University, Wageningen, Netherlands; Mr. R.L. Burt, Royal Botanic Gardens, Edinburgh; Prof. O.M. Hilliard, University of Natal; Ms. Hazel Meredith, Biology Department, University of Malawi; Dr. A.J. Dop, National Laboratory for Bulb Research, Lisse, Netherlands.

J.L. Mulder, B.Sc. M.Sc. Ph.D. Microbiologist.

He came for one Term only.

Lecturers - T.M. Mpoane, B.Sc., M.S., Ph.D. Research interest: Genetics and Plant Breeding. Department representative to UNESCO Man and Biosphere committee.

H. Dop, B.Sc., M.Sc. Entomologist (joined March 1984).

Working on the departmental insect collection.

Demonstrator (temporary) - E. Saroni, B.Sc. Worked in the Biogas Project, helping in the setting up and monitoring Biogas digestors in the Roma valley. Experimented on biodegradability of newspapers and on the products of fermentation of cow and horse manure.

Lecturers on Study Leave - F.M. Mochaba, B.Sc., M.Sc.

M.M. Maema, B.Sc. M.Phil.

S.A.G.P.-NATUURBEWARINGSKOMITEE - VERSLAG VIR 1983:

Kogelberg: Prof. A.V. Hall is steeds nou gemoed met die saak en sal verslag doen. Op versoek van Roy Stauth is 'n evaluering van die voorgestelde water-opgaarskemas vir Kogelberggebied gedoen.

Paarlberg: Prof. E. Moll tree as skakelpersoon op met die advokate. Die saak sal weer in 1984 aandag geniet.

De Hoop: Die saak is afgehandel en die verslag lyk baie positief. In sekere opsigte blyk dit dat ons plantkundig beter daaraan toe is as voordat die saak aandag geniet het.

Versamelpermitte: Al bosboupermithouers is in kennis gestel om voor einde Januarie 1984 verslag te doen. Die reaksie tot op datum is baie teleurstellend. Van die oorspronklike 40 permithouers is daar slegs 20 oor.

Daar word steeds met TECNAC onderhandel vir 'n beter bedeling vir versamelpermitte. Redelike weerstand word tot dusver ondervind.

Umtamvuna: Die saak is afgehandel en die dam sal nie meer in die natuurreservaat gebou word nie. Samewerking is van die Dendrologiese Vereniging,

Die Habitatraad en van SAIE verkry. Die saak wys dat deur middel van oordeelkundige korrespondensie veel bereik kan word.

Ystervarkpunt: Daar is met die Atoomenergiekorporasie kontak gemaak. Dit blyk dat die Zygophyllum morgsana - sukkulente struikgemeenskap nie deur ontwikkeling bedreig word nie. Die samewerking met die Atoomenergiekorporasie was uitstekend.

Ontbossing Rundu tot Mururanihek, SWA: Daar is op hoë vlak kontak gemaak oor die aangeleentheid. Ons wag nog op 'n antwoord van die Administrateur-generaal van SWA en die Bevelvoerende-generaal van die SWA weermag. Hierdie handeling is op aanbeveling van Generaal Viljoen via Generaal Marais.

Algemeen: Korrespondensie is met die Departement van Omgewingsake gevoer in verband met die bewaring van die vleie in die PWV-gebied asook die opplanting van oewergebiede en opvanggebiede deur private bosboumaatskappye. In alle gevalle is bevredigende antwoorde ontvang.

REPORT TO SAAB ON THE ACITIVITIES OF THE FLORA CONSERVATION COMMITTEE OF THE BOTANICAL SOCIETY OF SOUTH AFRICA FOR 1983:

In existence since the early years of the century, the Flora Conservation Committee was set up by the Council of the Botanical Society under the Chairmanship of one of its members. The Chairman invites to serve with him representatives of any groups, societies and Government Departments who may be interested. At present the Directorate of Forestry, the Divisional Council, SAPPEX (S.A. Protea Producers and Exporters Association), the Department of Nature and Environmental Conservation, the Cape Town City Parks and Forests Division, the National Botanic Gardens, SAAB and private persons all attend the quarterly meetings and any matters of concern regarding plant conservation may be discussed. The year 1983 provided some momentous events.

1. Conservation

1.1 Lecture Course

Transcripts of the lecture course on conservation at the Cape Technikon (discussed in previous Annual Reports) were bound and sent to all persons who attended the course, and a further 150 copies were sent to municipalities in the W. Cape and to private and public companies involved in Engineering and Construction.

1.2 Wild Flower Shows

In place of the usual local and regional shows of the Cape, 1983 saw the

mammoth Flora '83 Exhibition at the Good Hope Centre. Much of the planning and organisation was carried out by the Botanical Society in conjunction with other organisations. A series of 5 lectures on conservation-linked topics coincided with the display. Most of the country districts participated as did many governmental and quasi-governmental bodies. As far as time permitted, every plant on display was represented by a named specimen on a species stand, identification occupying, for several days before the opening, the time of all the professional botanists at the Cape and many welcome helpers. At the final reckoning there were perhaps 3000 named species on display. There is no doubt that there has never been a flower show to equal this in South Africa, nor perhaps anywhere in the world.

The Exhibition aroused unprecedented interest and comment, and attendance far surpassed all expectations. Despite some adverse criticism regarding the effect of such shows upon wild plant populations, (and no doubt many SAAB members will have trenchant views on this subject), it is hoped that the stunning display, by arousing interest in our fynbos veld where there was perhaps little before, will compensate for any harm that may have been done to the veld. In his opening address, the Prime Minister made many important statements regarding Government's attitude towards Conservation which, if they are acted upon, may go far to redress the mistakes of the past.

1.3 The Wild Flower Industry

1.3.1 Wild Flower Questionnaire. By the end of 1983 the Questionnaire prepared by B.R.I. regarding the use of the wild veld for the cut-flower trade had still not been put into use. SAPPEX awaits the appointment of a suitable official to complete the survey.

1.3.2 Veld Fires. During 1983 veld fires caused much devastation in the veld being used for the cut-flower trade. SAPPEX appealed for guidance from the Directorate of Forestry and the Department of Nature and Environmental Conservation in dealing with the problem. The need of the Wild Flower Trade to reduce fires conflicts with the traditional methods of graziers in the same district who tend to burn the veld as often as the vegetation will allow. Conflict between them is probably inevitable until some compromise is reached. It is even possible that the veld throughout the Cape might benefit if the outcome is a reduction in the frequency of fires in the wild-flower farming districts.

1.4 Road Development

The proposal to continue the long-quiescent road development along the S. Cape coast from Gansbaai to Agulhas aroused so much controversy involving

the local town council of Bredasdorp, landowners and conservationists, that the Administrator was constrained to call for an Environmental Impact report to be carried out by the University of Cape Town's School of Environmental Studies. The Flora Conservation Committee supplied comment. The Committee also requested that the area be proclaimed a "natural Area" in order to afford it protection from development. A final decision is still awaited.

1.5 Environmental Education

A pilot course in environmental education conducted by Peter Slingsby at the Houtama Environmental School with a group of underprivileged children was a resounding success and was followed up by a slide show for the parents. The Committee agreed to continue its financial support for the scheme.

1.6 Nature Reserves

1.6.1 Kleinmond Nature Reserve. The February meeting of the Committee noted with pleasure that the boundaries had been extended to include a further 350 ha of land.

1.6.2 Paarl Mountain Nature Reserve. Farmers privileged in time gone by to use some of the public lands adjacent to and within the present Reserve boundaries for private profit have requested an extension of this right to plough and cultivate for a further 50 years after which the land would be handed back for conversion (rehabilitation?) into a Nature Reserve. While an amendment of the Paarl Mountain Act of 1970 could enable this to occur it is very unlikely that any acts within the power of man could restore the area to prime fynbos worth conserving once it has been exploited in this way. The remaining veld thus threatened is a very rare relict of a once widespread fynbos veld type on granite, most of which is now degraded by agriculture beyond restoration. Paarl Mountain consequently deserves a high priority protection rating. The Society decided to oppose the Amendment Bill, and responded to the request of the Mayor of Paarl and his legal advisors with support and guidance. The outcome of the decision of the Parliamentary Select Committee is awaited as we record the activities of the year.

1.6.3 De Hoop Nature Reserve. The countrywide controversy aroused by the announcement that Armscor intended including this reserve in a new arms-testing range was probably the single most important conservation issue of the decade, excepting only the proposal to mine coal in the Kruger Park. It is unnecessary to repeat the details here, except to record that the Committee and the Botanical Society played an active part in formalising public opinion and by making submissions to the Hey Commission from the time the news broke

in May 1983 until the end of the year. The outcome is by now known to the nation.

1.7 Dam Development.

The Palmiet River Schemes. The Flora Conservation Committee took part in discussions and visits to the construction sites in this hitherto largely unspoilt mountain fynbos wilderness, and the Chairman undertook to publish a report on the findings and views of the Botanical Society.

1.8 Other Matters

A number of other matters were dealt with by the Committee, including the provision of research aid in the form of a scholarship, held in 1983 by Ms Lucia Bossi for her work on remote sensing and mapping. A committee was appointed to review applicants for 1984.

Financial aid was also given towards the establishment of a Research Centre at the National Botanic Gardens.

Data was also provided for BBC wildlife programmes.

1.9 Environmental Impact Studies

Opportunities for conserving lowland fynbos have now largely vanished. Road development and recent land sales have diminished the worth of the Gansbaai-Agulhas area; De Hoop will now serve only a secondary conservation function; quite recently another prime area between Mossel Bay and Still Bay has been proclaimed a nuclear development site; Kogelberg is no longer undisturbed; the Paarl Mountain and De Hoop Reserves demonstrate that publicly owned nature reserves are not regarded as sacrosanct. Not even private owners maintaining their land as nature reserves are proof against expropriation. Natural unexploited areas would seem to be merely "not yet developed" areas. The arguments of anyone who thinks he has found a way of making money out of undisturbed land seem to be paramount over those who wish to retain anything of the gloriously beautiful natural plant heritage to which we are heir. As populations increase and water assumes the position of top national priority one needs to ask whether management of our mountain catchments will continue to take cognisance of the need to maintain species diversity, or whether out-of-season and short-cycle burns will reduce these still botanically rich places to province-wide degraded botanical slums.

In view of these great threats to conservation in the Cape Province, (and no doubt they are repeated elsewhere in South Africa), the Committee feels that it should concentrate its efforts towards making Environmental Impact Studies statutory in our country.

Perhaps it is also necessary for SAAB to address itself to this problem.

2. Pest Plants

The Committee has kept a watching brief on alien plant invasion, and on the efforts of Government Agencies to combat it. The Regional Director of Forestry has reiterated how vital it is to follow up initial efforts with regular weeding. His department was congratulated by the Committee on its programme, and deserves that of the Botanical community as well. The Committee also commended the department on a recent article on *Nasella tussock* grass in *Landbouuus*.

A letter was sent to Naval headquarters at Westlake alerting them to the thick stands of *Hakea* on mountain slopes under their control.

3. Publications Committee

At the end of 1983 the Chairman announced that in less than three years 17 000 Field guides of the Botanical Society Series were in the hands of the public. These include the entire first edition of Guide I to Namaqualand, one third of Guide II to Outeniqua and nearly 3 000 of Guide III to the Cape Peninsula. Two more were well-advanced: that to the Transvaal Lowveld being due from the printers in 1984, and the other, the Hottentots' Holland to Hermanus Guide, in 1985. A second impression of Guide I was being planned, and a possible 2nd edition later on. The sum of money involved was now large. Guide III alone cost R74 000. That the books could be sold so cheaply was thanks to the financial and other aid generously given by the Directorate of Forestry and the Department of Nature and Environmental Conservation of the Cape.

4. Links with other Groups

4.1 The Habitat Council. This Council acts as a buffer (why?) between the State and private organisations such as the Botanical Society. Members of the Council are appointed to represent societies on Commissions of Enquiry, etc. Current events and recent past history seem to indicate that the voice of Botany is commonly regarded as unnecessary on such committees. Botanists are rarely appointed as members, as evinced by the Habitat Council refusing the Botanical Society its request for representation on the Hey Commission. At best botanists' views seem to be carried second-hand by life scientists from other disciplines. This is ironic when the botanists' area of knowledge is the plants which are the basis of ecosystem dynamics. The Flora Conservation Committee questioned whether this was the most effective way for the voice of Botanical Conservation to be heard. Perhaps SAAB should

consider how to achieve a more effective role for Botanists in the decision-making processes in South Africa today.

4.2 The Department of Nature and Environmental Conservation in the Cape

The most cordial relations exist between this Department and the Botanical Society, which has reason to be grateful for the help given by its staff in the preparation of the Guide Book series and for other contributions through the years. The Chairman drew the attention of the Committee to the most excellent recent Annual Report of the Department.

4.3 C.C.N.C.C.

The Minutes of the Coordinating Council for Nature Conservation in the Cape are regularly tabled, and amongst other items, a booklet published by EPPIC (Environmental Professional Planners Interdisciplinary Committee) on Environmental Impact Assessment upon which CCNCC had commented, was noted.

4.4 The Endangered Wildlife Trust

A close liaison exists between the Flora Conservation Committee and the Endangered Wildlife Trust, a Johannesburg-based organisation which, through their journal, Quagga, has given support to the Committee on conservation issues involving the Cape Flora.

(Anne Bean, SAAB representative on the Flora Conservation Committee of the Botanical Society. Bolus Herbarium, University of Cape Town. Feb. 1984.)

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