

# FORUM BOTANICUM

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NEWS-LETTER OF THE SOUTH AFRICAN ASSOCIATION OF BOTANISTS  
NUUSBRIEF VAN DIE SUID-AFRIKAANSE GENOOTSKAP VAN PLANTKUNDIGES  
~~INTERNATIONAL ASSOCIATION FOR PLANT PHYSIOLOGY.~~ The 1974 Congress of the Inter-

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national Association for Plant Physiology was held in Würzburg, West Germany during September last year. Prof. O.A.M. Lewis attended in two capacities: (i) to represent South Africa on the Council of the I.A.P.P. at the two Council meetings held during the congress and (ii) to deliver a paper on nitrogen metabolism in plants and the "new" glutamine pathway of ammonia incorporation in photosynthesizing leaves.

The Council comprises the delegates representing the national plant physiological societies of forty different countries and the 20 000 plant physiologists belonging to them, with Professor Burström of Sweden as current president and Professor Pilet of France as general secretary. The main topics discussed at the council meetings were the following:-

- (a) Methods to improve co-operation between member countries in plant physiological matters;
- (b) Methods to facilitate speedier publication of plant physiological articles;
- (c) Standardisation of plant physiological standards and units. The Association has printed a booklet on the recommendations of its sub-committee. (In South Africa copies of this booklet may be obtained from Professor Lewis, Department of Botany, U.C.T. at R1 a copy);
- (d) The formation of a European Society of Plant Physiology;
- (e) Future meetings of I.A.P.P. - these will no longer be general meetings but will be based on a "theme" sponsored (ideally) by host national societies;
- (f) Report on economic support available to societies from the I.U.B.S. by the president of the I.U.B.S.;
- (g) Revision of the I.A.P.P. constitution.

The meetings were efficiently run and completely apolitical as evidenced by the fact that I was appointed chairman of the sub-committee to revise the Association's constitution!

The Congress itself was divided into two plenary sessions. Session A included papers on the Physiology and Structure of Plants; Session B comprised papers on Plant Productivity and Water Relations. Delegates also had the opportunity of attending sessions of the Deutscher Botaniker-Tagung which ran co-jointly with I.A.P.P. The

four South African papers were well received. These were:

- (a) Cresswell, Tew and Gressman (Wits University): The effect of nitrate, ammonia, light and temperature on CO<sub>2</sub> compensation point;
- (b) Tew and Cresswell (Wits University): The effect of nitrate, ammonia and varying light intensity on <sup>14</sup>C incorporation into leaves;
- (c) Schütte and Burger, (U.C.T.): Water stress in woody plants;
- (d) Lewis (U.C.T.): Glutamine as chief incorporator and translocating agent of reduced nitrogen in photosynthesizing leaves of *Datura*.

Prof. Lewis found attendance at this Congress to be a most stimulating and rewarding experience particularly in terms of knowledge gained and contacts made or renewed. Particularly noticeable was the strong contribution made by Australia, thanks to the establishment of strong centres of plant physiological research by the Australian C.S.I.R.O. There is no doubt that physiological plant science in its pure and applied state could benefit enormously in South Africa from the establishment of similar institutions by our own C.S.I.R.

INSTITUTE OF SYSTEMATIC BOTANY, COPENHAGEN, DENMARK: Prof. Arne Strid has just finished a revision of *Bobartia* (Iridaceae), published at the end of 1974 in *Opera Botanica*, Lund (45 pp.). According to this revision *Bobartia* consists of 15 species. The morphology in the genus is supplemented with an account of the stem and leaf anatomy. A note on the genus *Sutherlandia* (Fabaceae) is in preparation.

Mr. Ib Friis together with Mrs. Inger Bjornstad, Oslo, has finished the revisional work on *Haemanthus* subgen. *Nerissa* (Amaryllidaceae). It is published in the Norwegian Journal of Botany.

Mr. Finn Rasmussen is continuing a revision of the genus *Corymborchis* (Orchidaceae).

Mr. Kai Vollesen has finished a taxonomic revision of the genera *Tinnea* and *Renschia* (Lamiaceae) to be published in *Botanisk Arkiv* this year. In the beginning of 1975 he took up a two-year contract appointment in Tanzania where he will study grazing ecology in miombo woodland.

BOTANICAL MUSEUM, COPENHAGEN, DENMARK: Prof. Rolf Dahlgren has finished a revision of *Wiborgia* and *Lebeckia* sect. *Wiborgioides* (Fabaceae). This will be published in *Opera Botanica*, Lund, in the course of February 1975. Together with chemists at the Technical University of Denmark, working on chemical constituents of plants, he has also re-evaluated the systematic position of some families in the angiosperm system. Thus, through its morphological and embryological features in conjunction with presence of iridoid compounds, *Roridulaceae* is, for example, considered to be a member of *Ericales*. The work will be published in *Botaniska Notiser*.

Mr. Ove Juel-Hansen is revising the genera *Rhamphicarpa* and *Cynium* (Scrophulariaceae).

PROF. C.D. PIGOTT of the University of Lancaster in England is at present spending five months as visiting professor in ecology in the Department of Botany at Witwatersrand University. The C.S.I.R. invited him to South Africa. He is senior scientific adviser for the ecosystem project being run by the C.S.I.R. at Nylsvlei in the Transvaal.

Prof. Pigott recently visited the S.W. Cape and gave lectures on the application of experimentation to studying the influence of mineral nutrients on vegetational succession.

DR. HANS HERRE of Stellenbosch celebrates his 80th birthday on 7th March.

DR. PETER BALLY, a recent visitor to South Africa, was awarded a doctorate (honoris causa) by the University of Basle in his home country, Switzerland, in 1972. This was in fitting recognition of his distinguished contributions to the botany of East and North East Africa over more than 40 years. Dr. Bally, whose field collections, represented in most leading herbaria, exceed 17 000 numbers, is currently busy with Mrs. S. Holmes of Kew, in preparing the account of the Euphorbiaceae for publication in the Flora of Tropical East Africa. He has worked extensively on this family as well as on the Asclepiadaceae in East Africa and the Somali-Ethiopian Region. He has a large number of scientific publications to his credit and his book "*Monadenium*" is the standard monographic work on that genus. (J.J. Lavranos).

1974 SURVEY OF ECOLOGISTS: The following have indicated that they were omitted from the survey of Southern African ecologists given in Forum Botanicum 12(9) of September 1974:

Mr. P.J. Ashton, Botany Department, Rhodes University, Grahamstown. 6140.  
Autecology of *Azolla*.

Dr. C. Breen, Botany Department, University of Natal, Pietermaritzburg. 3200.  
Lake Sibayi Region. Succession in Tongaland dune forests. Mangrove vegetation.

Mr. C.J.G. le Roux, Nature Conservation & Tourism, P/Bag 13186, Windhoek 9100.  
Plant ecological survey of the Etosha National Park (nearly completed). Various grazing pressure experiments.

Dr. D.S. Mitchell, Division of Biological Sciences, University of Rhodesia, Salisbury, Rhodesia. Autecological studies of *Salvinia molesta*. Ecology of aquatic macrophytes, particularly of weed species. Management of man-made lake ecosystems.

Mr. E.R. Robinson, Namib Desert Research Station, P.O. Box 953, Walvis Bay.  
Phytosociology of the Namib Desert Park.

Prof. B.R. Roberts, Dept. Pasture Science, U.O.F.S., Box 339, Bloemfontein 9300. Botanical surveys of Oxbow Catchment, Lesotho, Tussen-die-Riviere Game Farm, Bethulie, Willem Pretorius Game Reserve, Winburg, Golden Gate Highland Park, Clarens, Thaba 'Nchu Mountain. Vegetation/Habitat analyses. Veld assesment, condition scoresheet development. Grazing management. Palatability. Yield of Grasses. Alpine ecology. Catchment Research. Nutritive value of grasses. Ecosystems, Primary Producers. (Prof. Roberts has recently accepted a permanent appointment at the Pastoral Laboratory, Box 282, Charleville, Queensland 4470, Australia.)

Miss F.M. Shaw, Botany Department, University of Natal, Pietermaritzburg 3200. Phytoplankton ecology of Lake St. Lucia.

Mr. A. Twinch, Department of Botany, University of Natal, Pietermaritzburg 3200. A study of the effect of nutrient enrichment on the phytoplankton populations of Midmar Dam.

Together with these additions there are now 60 known scientists with ecological interests in South Africa, 13 more than in 1970 (Forum Botanicum 8(1), January, 1970). Although the increase is not large, over half of these ecologists (36) were not included in the former survey, possibly indicating a higher turnover of ecologists! (J.W. Morris).

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