

# FORUM BOTANICUM

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

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FORUM BOTANICUM NEGLECTUM DEMUMQUE APPARENTE SED QUO VADIT: The last issue of Forum appeared in April and since then there has been nothing. Owing to administrative problems for the editor, coupled with overseas leave and pressure of work, production came to a standstill, for which the editor must apologise to members. In particular, apologies must go to those two universities which so kindly sent news reports to the editor but which are now out-of-date for publication.

The non-appearance of Forum, however, has brought up a most interesting aspect, namely, that not a single member of SAAB has queried not having received the newsletter! Only those inscrutable keepers of the deposit libraries have sent demanding letters which mention possible legal action, and one query came from a non-botanical recipient. Is there then a need for Forum among members; is it worth while for the editor to struggle to produce the newsletter in the future?

BOLUS MEDAL FOR BOTANY: This medal is awarded to non-professional botanists by the Botanical Society of South Africa for meritorius work. The medal was recently awarded to Mrs. E. Jenkins (Eve Palmer) of Pretoria for her significant contributions to the literature on South African trees. The ceremony at which Mrs. Jenkins was handed the medal by Prof. H.B. Rycroft, Vice-President of the Society, was held in Pretoria on 26th October. It was attended by many people who had been associated with the production of her books.

LINNEAN COMMEMORATIVE SYMPOSIUM: A symposium to commemorate the 200th anniversary of the death of the founder of taxonomy, Carolus Linnaeus, was organised by the Royal Society of South Africa on 16th August 1978 at the Athenaeum, Newlands.

In an opening address for the Symposium of the Royal Society the President, Prof. A.W. Sloan of the University of Cape Town, noted the great debt owed by the sciences to Carolus Linnaeus (1707 - 1778) who

established the basis of modern taxonomy. Linnaeus' interest in the biological richness of the Cape was reflected in his correspondence with the Governor at the time, Ryk Tulbagh. Over 780 of the names of plants in the Cape Peninsula are ascribed to Linnaeus, based in many cases on the specimens sent to him by Tulbagh himself. Taxonomy is of fundamental value in the organisation of biological knowledge. Such knowledge is of great theoretical and practical benefit in South Africa, which is so richly endowed with plants and animals both on land and in the bordering oceans. The summaries of the papers distributed before the Symposium had shown both the strengths and the serious weaknesses of taxonomy in South Africa. The President deplored the apparent lack of concern about these shortcomings for what is an important element in the country's scientific effort. An aim of the Symposium was to specify where the difficulties lay and to indicate priorities for their solution. Pending possible further sessions at other centres, a full account of the Proceedings would be considered for a special publication by the Society.

Morning session: Under the Chairmanship of Dr. T.H. Barry, Director of the South African Museum, there was given a keynote address by Dr. B. de Winter entitled: A Complete Taxonomy: When and Why?; and papers on the state of taxonomy for major groups as follows: Dr. V.B. Whitehead: Terrestrial Invertebrates; Dr. N.A.H. Millard, F.R.S.S.Af.: Marine Invertebrates; Dr. P.A. Hulley: Fishes; Dr. G.R. McLachlan: Reptiles, Amphibians, Birds and Mammals; Dr. M.A. Cluver: Palawontology; Mr. R.H. Simons: Algae; Prof. E.A. Schelpe, F.R.S.S.Af.: Lichens, Bryophytes and Ferns; Dr. B. de Winter: Flowering Plants. Copies of the summaries of the position-papers were tabled and are available from the Society.

Afternoon session: Under the Chairmanship of Dr. A.V. Hall, Assistant Curator of the Bolus Herbarium at the University of Cape Town, there was a debate on priorities for strengthening taxonomy in South Africa. Copies of a statement by Dr. D.J. Brothers of Natal University were tabled, this being on a proposed post-graduate M.Sc. course in Taxonomy, which would incorporate 6 - 9 months of general training followed by an investigation of a group of the candidate's choice. After discussion, those present resolved as follows:-

"Recognising the urgent need for more trained taxonomists, many national and international organizations have stressed that Universities should

provide formal training in taxonomy. The proposed Master's degree in biological systematics to be offered by the University of Natal at Pietermaritzburg is therefore to be welcomed. The delegates at this Symposium strongly support the establishment of this course".

After a full discussion of many further aspects, a summing-up was given by Professor E.A. Schelpe, F.R.S.S.Af.. Among the chief points that emerged was that the lack of adequate financial support was the source of most of the problems for taxonomy in South Africa. A generally low availability of posts discouraged both recruitment and professional training for taxonomy. More taxonomists were needed in almost every group. Among the many tens of thousands of invertebrates, which include the insects, the ratio of taxonomists to species was approximately 1 : 1 000, with large groups neglected and in need of further study. The ratio is qualified by the fact that a number of the taxonomists are part-time or confine their work to small groups of difficult species. Inadequate technician support was widely reported. There were problems in arranging for training technicians and it was agreed that for specialised work it would be helpful to send technicians to learn methods at other institutions and museums within the country and overseas. Those present resolved as follows:-

"to make a survey among taxonomists on what training of technicians is needed, what posts are available or required, and what is considered a suitable ratio between taxonomists and technicians in each field".

A distinction was made between identification for scientific projects and those made for the public for general interest. It was agreed to examine further the idea of identification centres for the public where field guides and vouchers for common species would be provided. Field guides were gradually appearing and they eased the strain on identification services. For scientific projects, it was resolved:-

"to ask the relevant Societies to prepare lists of taxonomists who could provide identification, naming the taxonomic group in each case".

For reference collections, the Symposium noted with concern the frequent lack of facilities or staff for adequate curating. It should be regarded as a responsibility that the acquisition of a collection obtained by perhaps costly methods, such as from marine

cruises, should automatically be linked to funding for adequate curatorial work. Grants were needed to allow taxonomists to visit overseas museums that would not lend type specimens, and a change to the C.S.I.R. funding arrangements was needed for this.

Valuable private reprint collections were not listed in the Pisal index. It was agreed to ask that the list of taxonomists proposed above should carry references to these collections. Literature on the travels of collectors was scattered. Dr. L.E. Codd was preparing a report on this with Miss M. Gunn, for Flowering Plants, and Professor G.F. Papenfuss, Hon. F.R.S.S.Af., was doing the same for algae.

The Symposium noted that the problem of finding funds for the publication of research results was being partly alleviated by the national journals scheme. Difficulties appeared to remain in the publication of lengthy monographs with necessary numerous illustrations, also in meeting the page-charges of overseas journals. It was agreed that there was a moral obligation for an institution to find publication funds for papers from its salaried staff and that such expenditure should be regarded as part of the contract of tenure.

INTERNATIONAL PLANT GROWTH SUBSTANCES ASSOCIATION (IPGSA): The present officers of IPGSA are:-

<u>Professor Yoshio Masuda</u> President	(Dept of Biology, Faculty of Science, Osaka City Univ., Osaka, Japan 558)
<u>Professor Folke Skoog</u> Vice President	(Institute of Plant Development, Univ. of Wisc., Madison, Wisc. 53706 USA)
<u>Dr. A. Carl Leopold</u> Secretary	(Boyce Thompson Institute, Cornell Univ., Ithaca, N.Y. 14853 USA)

Plans for 1979 meeting of IPGSA: Plans are underway for the tenth meeting of the IPGSA, to be held in Madison, Wisconsin, USA, with Professor Folke Skoog and the University of Wisconsin acting as host. The meeting is planned for July 23-26, 1979, with registration starting on Sunday, 22nd July.

The meeting is expected to follow a timetable of rather close sessions, with perhaps some intervals set aside for relaxation, but with no half days for recreation as has been done in the past. It is hoped that people who wish to take trips to special locations in the region would make independent arrangements for such travel.

If further information is needed in advance of this call for registration, contact either Professor Skoog or Dr. Leopold.

SOUTHERN AFRICAN WEED SCIENCE SOCIETY: A resolution passed at the Second National Weeds Conference held in Stellenbosch in February 1977 resulted in a meeting being called to establish a Weed Science Society. The inaugural meeting was held in Pretoria on 17th May 1978 under the Chairmanship of Mr. Lars Nayler. Questionnaires sent to all those who had participated in the Congress were returned with an overwhelming response in favour of such a society. It was agreed that the aims of the Weed Science Society should be the promotion of the science of weed research and control in all its aspects. The following office bearers were elected:-

Dr. D.P. Annecke:	President
Mr. L. Nayler:	Vice President
Mr. M.J. Wells:	Hon. Secretary
Mr. I.D. Hattingh:	Hon. Treasurer
Mr. A.L.P. Cairns:	Editor
Dr. S. Nesor:	Asst. Editor
Mr. S. Grobbelaar)	Executive Members
Prof. P.C. Nel )	
Mr. J.H. Wessels )	

A.S. and T.S. DIAMOND JUBILEE: It is intended to hold a conversazione in Kelvin House, Johannesburg during June 1980 to celebrate the Diamond Jubilee of the formation of the Associated Scientific and Technical Societies of South Africa. SAAB, as a member society of the A.S. and T.S., will take part in the festivities. It is proposed that during the conversazione there will be exhibitions of interesting appliances, experimental demonstrations or any other popular form of bringing people up-to-date on matters of scientific interest. The occasion will afford a golden opportunity to publicise the important role played by scientists in the community and to draw attention to the functions of A.S. and T.S. and its member societies. While "live show" demonstrations or experiments would be the most popular medium, displays of apparatus, plans, diagrams, photographs or models would also be welcome. Since space will be at a premium, one should think in terms of space occupancy being 15 to 20 square metres for each society. Perhaps the theme of the exhibition could illustrate achievements or progress in a

particular scientific sphere over the past 60 years. The Council of SAAB would like to receive ideas or plans for a botanical exhibition from its members. Please send your contribution to the Secretary of SAAB, Private Bag X101, Pretoria, 0001, before the 15th January, 1979.

COUNCIL FOR THE HABITAT (HABITATRAAD): It will be of interest to our members to know that SAAB is now also a member (since 25th August, 1978) of the Council for the Habitat. This is a national co-ordinating council for voluntary organisations concerned with environmental preservation and improvement. This Council is investigating several environmental problems at the moment such as i) Quarries. There is concern about the degradation wrought by quarrying; ii) Lack of facilities for blacks in nature reserves; iii) Noise pollution; and iv) Motor traffic on beaches between low and high water mark. If members of SAAB have any serious and responsible comments to make on the above matters, please write to the Secretary of SAAB, Private Bag X101, Pretoria, 0001, before the 15th January 1979 so that your ideas can be discussed at the next Council Meeting of SAAB and then passed on to the Council for the Habitat.

THE SECOND LATIN AMERICAN BOTANICAL CONGRESS: The Second Latin American Botanical Congress was convened in Brasilia, capital of Brazil, from 21 - 27 January, 1968, by the Botanical Society of Brazil. The congress programme was dedicated to the memory of Carolus Linnaeus, on the second centenary of his death.

The Congress was attended by over 350 botanists, from 18 countries, including most Latin American states, the USA, Canada, the United Kingdom, Finland, France, Germany, Israel, Ghana, South Africa and Australia. The programme included five key-note lectures, 25 symposia, 80 platform papers and 70 poster papers.

The key-note papers comprised "Hydrocarbons via photosynthesis" by Melvin Calvin, University of California, Berkeley; "Transport and Transfer Processes in Plants" by T.P. O'Brien, Monash University, Australia; "The Contribution of Plant Genetics to the Study of Cancer" by Alvaro Macereira - Coelho, Villejuif, France; "Human Resources and the Prospectives of Botanical Research in Latin America" by Angel Cabrera, Darwin Botanical Institute, Argentina; and "Actin Involvement in Chromosome Movements" by Arthur Forer, York University, Canada.

The titles of key-note papers do not fully reflect the field of botany covered in the Congress for considerable attention was devoted to general ecology (29 papers), eco-physiology (27 papers), the Latin American flora (18 papers), and the use of computers in herbaria (9 papers). In general, the standard of papers was high and the publication of the Congress Proceedings will be a valuable contribution to the botany of Latin America. The symposia failed to develop into useful scientific discussions, however, owing probably to the lack of appropriate lead papers and oriented discussion initiated by the symposia chairmen. The poster sessions were in general disappointing, but the poor visual presentation was amply compensated for by the enthusiastic discussions led by the various contributors - mainly post-graduate students. The introduction of poster sessions, again aimed at providing Honours students with an opportunity to display and discuss their projects, would be a useful innovation at future SAAB Annual Meetings.

A listing of titles, or even fields of activity, of the 180 papers read at the Congress would be impossible here. I would be happy to supply a set of titles and abstracts of selected papers on request. Papers of particular interest, either because of their research fields or quality, included:-

- Anthony B. Anderson: White-sand Campinas of the Brazilian Amazon Region;
- George Eiten: Formas Fisionômicas do Cerrado;
- Leopold Magno Coutinho: As Queimadas E Seu Papel Ecológico;
- Eduardo Lleras: Morfologia e Anatomia das Folhas e sua Relação com Parâmetros Fisiológicos;
- Enrique Forero: Flora de Colombia;
- Ghilleen T. Prance: Flora Neotropica: Where do we stand?;
- Enrique H. Buchner: Relaciones entre la "Pomba do Bando" (Zenaida auriculata, Avia, Columbidae) Y la Vegetación de la Caatinga;
- Friedrich Ehrendorfer: Chromosomes and Evolution in Tropical Woody Angiosperms;
- J.G. Tundisi: Produção Primaria em Ecossistemas Lacustres Tropicais: Fatores Limitantes e Controladores;
- E. Medina: Composition Mineral de las Hojas Y Area Foliar Especifica como Indicadores de Condiciones Nutricionales en Bosques Tropicales Siempreverdes.

In sum, the Congress was a great success. The organisers, in particular the executive secretary, Dr. Maria Artemisis Arraes Hermans, are to be congratulated on the efficient manner in which the meetings were conducted. The production of a bound set of abstracts of all papers presented, including a most useful and excellently illustrated account of the vegetation of central Brazil by Dr. George Eiten, was a sterling achievement, especially considering that the summaries were received up until a month before the Congress opened.

Para bens, ao Sociedade Botanica do Brasil! (B.J. Huntley)  
(With apologies for late appearance - Ed.)

CONTROL OF COASTLINE GIVEN TO NATURE CONSERVATION: Following representations by the Department of Nature and Environmental Conservation of the Cape Provincial Administration and recommendations by the Ministerial Committee on Marine Reserves, the Minister of Economic Affairs, the Honourable J. C. Heunis, recently granted authority to the Department to manage and control those portions of the coastline falling within the boundaries of its coastal nature reserves: "De Hoop" situated in the area between Bredasdorp and the Breede River mouth, "Goukamma" situated between Sedgfield and Knysna and "Rocher Pan" near Dwarskersbos.

These new powers give the Department of Nature and Environmental Conservation the responsibility of:-

- a) protecting the coastal zone between high and low spring-tide marks - this includes bait beds and other marine organisms, beaches and coastal dune ecosystems;
- b) Preventing all entry by vehicle along the beaches. In future, all persons wishing to enter the reserve by vehicle must enter at the gate where free permits are available. Barriers have been laid down across the beaches at the boundaries of the De Hoop and Goukamma nature reserves to ensure that this provision is complied with. Pedestrians may still have access along the beaches, however. Control of vehicular traffic is considered essential to safeguard the fragile dune vegetation and breeding colonies of coastal birds;
- (c) Improving the availability of bait and good angling by applying sound conservation measures based on research to these "coastal reserve" areas.



- (d) Carrying out research to determine how much bait is removed and how many fish of which species are caught. This information will be used to provide anglers with the best possible fishing without depleting the stocks;
- (e) Patrolling the area to ensure that regulations are being adhered to. For this reason all Nature Conservation Officers on the respective reserves have been appointed full Sea Fisheries Officers with all the incumbent powers.

GENEESKUNDIGE PLANTE BESTUDEER: Een van die grootste vervaardigers van etiese en patente farmaseutiese middels in Suid-Afrika, is besig met 'n unieke navorsingsprojek: 'n Onderzoek na die geneeskragtige plantsoorte van Suider-Afrika.

Hierdie baanbrekerswerk word deur die personeel van Noristan se Sentrale Navorsings-, Ontwikkelings-, en Kontrolelaboratorium, onder leiding van dr. F.O. Snyckers, onderneem.

Die doel is om plantsoorte te vind wat gebruik kan word vir die ontwikkeling en uiteindelijke vervaardiging van nuwe medisyne. Tot dusver is verskeie belowende samestellings geïsoleer en hulle word aan intensiewe farmakologiese proewe onderwerp.

Die onkoste verbonde aan die projek - wat sewe jaar gelede begin is - beloop tot dusver reeds ver oor die R1 miljoen.

Die eerste stap in die navorsingsproses is die versameling van plantsoorte en volksgeneeskragtige inligting in verband daarmee. 'n Plantkundige doen die veldwerk en versamel gegewens, dikwels van toordokters of boere.

Tot dusver is oor die 20 000 eksemplare versamel en gegewens in verband met elkeen word in 'n rekenaar gebêre wat help om plantsoorte vir verdere ondersoek te selekteer. Sodra 'n plantsoort uitgekies is, word dit gelokaliseer en ten minste vier kg (droë massa) word versamel.

Gedurende sy soektog na belowende geneeskragtige plante, het die plantkundige Botswana (waar hy 'n tydjie deurgebring het by 'n Boesmanstam), Transkei, Zululand en Namakwaland besoek, asook na plekke orals in die Transvaal gereis. Gedurende die afgelope drie jaar het hy meer as 130 000 kilometers afgelê.

Wanneer hy na die Laboratorium terugkeer, word die plantmateriaal geëkstraheer en die ekstrakte word aan siftingstoetse vir 'n wye reeks farmakologiese uitwerkings onderwerp.

Nadat die teenwoordigheid van moontlike geneeskragtige aktiwiteit vasgestel is, word die ekstrakte chromatografies ontleed. Deur herhaalde fraksionering word die samestelling wat vir die bepaalde farmakologiese effek verantwoordelik is, geïsoleer en sy chemiese struktuur ontleed.

Toepaslike wysigings van die chemiese struktuur word gemaak en 'n program van chemiese sintese ontwikkel rondom die nuwe, belowende samestelling. Sodra 'n basiese metode ontwikkel is om die samestelling te produseer, word genoeg stof vervaardig om verdere, meer intensiewe farmakologiese proewe uit te voer.

Baie jare van sorgvuldige proefneming is nodig voordat tasbare bewyse tevoorskyn kom in die vorm van 'n nuwe medisyne wat by die Noristan-reeks gevoeg kan word. Daar is baie op die spel - nuwe medisyne verwesenlik die toenemende aanvraag vir geneesmiddels wat veiliger en meer doeltreffend is.

BOOK REVIEWS: These critical and valuable reviews, although lengthy, have been included as they cover subjects which are important to many universities and conservation bodies in South Africa.

- (1) A Field Guide to the Trees of Southern Africa: by Eve Palmer. Published by Collins, 1977. Printed in Great Britain. Size 200 x 130 mm; 28 mm thick, incl. hard cover. Weight: 580 g. 352 pages, with 32 colour plates and numerous black and white line drawings by Rhona Collet. R14,95.
- (2) Trees of Southern Africa: by Keith Coates Palgrave, assisted by R.B. Drummond. Edited by E. Moll. Published by Struik, 1977. Printed in South Africa. Size: 250 x 170 mm; 50 mm thick, incl. hard cover and protective plastic cover. Weight: 1600 g. Pages 959, with 112 colour plates and numerous black and white photographs, line drawings and distribution maps. R15,00.

Trees are forever. After woodcutters, timber growers, sawmillers and pulpers, it is lately the publishing industry that is discovering them as a lasting and lucrative source of business. The year 1977 was a particularly fertile year, with two major productions reaching the market by Christmas. These two books will be with us for some time: the one because it does not sell very well, the other, though not having done badly so far, because of a rather large printing order.

The two books have much in common; not only price and title, including the claim of being the absolutely 'first', 'authoritative', 'complete', etc. handbook-type presentation of all trees in one volume - but also sources, arrangement and style of descriptions. The bold-lettered internal captions (bark, leaves, flowers, fruit) are part of another common feature: the use of technical language which is something new in local commercial dendrology. As both authors are veterans of the art, this is a significant message and can have but one meaning: that the market has outgrown the snob appeal.

Palmer's 'field guide' is indeed a handy little booklet for use in the field and elsewhere - the type pioneered in this country by Joseph Burt Davy in 1926 with his near-forgotten 'Manual of the Flowering Plants and Ferns of the Transvaal with Swaziland'. Essentially, the booklet is a sort of condensed pocket-book edition of Palmer's previous coffee table opus (E. Palmer and N. Pitman, 'Trees of Southern Africa'; Balkema, 1972/73).

In a way, the present booklet is better because the diffuse background stories have been filtered out. What remains is an agreeably streamlined account of our principal tree species, including equally concise notes on families and genera. There is also a very good introduction followed by a most useful key to the genera. There are also keys to the species of the larger genera. The black and white vignettes accompanying the keys and species descriptions are mostly too much reduced to be of practical value; however, they help a lot to enliven the severe text and to soften the impact of the typographical style for which the publishers do not deserve high marks. Leaf drawings of large and difficult genera like *Rhus* and *Commiphora* are assembled in blocks or plates for easy comparison.

The high-lights of the book are, no doubt, Rhona Collett's enormously attractive colour plates. They are strategically placed throughout the book and illustrate 155 of the most important species.

An attempt has been made to join the common names band-wagon: the scientific names being relegated to second place and preceded, in bold capitals, by the authoress's favourite common name, mostly English or Zulu. Although Afrikaans and other names are listed underneath, it is a pity that the book misses out completely on the new, standardised common names for South African trees.

The scientific nomenclature, taken over from Palmer's previous book is also outdated to some extent. So is, of course, the old national tree list which has been reprinted at the end of the booklet.

Books of this kind are expected by the buying public to be fully up to standard. The onus to keep abreast rests with the author.

These shortcomings, however, do not seriously impair the booklet's usefulness as a field guide, notably as there is no better one. Its main fault is that it has come out two or three years too late. Now it does not seem to have a very great chance in the shadow of its big brother: Palgrave's work where people get more book for the same money.

The relative price advantage of Palgrave's book is due to subsidisation by a book fund. This was poorly subscribed: the sponsors' edition at only 42%, the subscribers' edition at 62%. Luckily, the amount collected, although falling R21 450 short of the initial target of R47 500, according to the list of contributors, was still sufficient to facilitate a reduction of the standard edition price to the R15 mark envisaged in the prospectus.

The book is an impressive volume made up in the very image of a standard reference work. Of course, it is not possible to have it both ways. For a field guide, as advertised, the book is too bulky and, at 1,6 kg, much too heavy. The weight saving achieved by the use of a special, thin type of imported paper has largely been nullified by the insertion in the centre of the book of a large colour picture section printed on extra heavy art paper. Although this collection of disconnected colour illustrations has no real function in the book, it is most certainly highly effective as a sales-promoting eye-catch. One cannot but admire the incredibly beautiful colour photographs and montages, that is, quite novel habit sketches with superimposed close-up photographs.

The book's basic feature is a re-definition of 'Southern Africa' which up to now was regarded, at least in phytogeographical terms, as synonymous with the subtropical/temperate region south of the Okavango-Limpopo line marking the zone of transition to tropical Africa. The author who, in a previous volume, had recognised Rhodesia as a part of Central Africa, has now included this country in Southern Africa. In consequence, the book carries considerable excess luggage as far as the average South African reader is concerned: about one-fourth of all species are purely Rhodesian, tropical ones.

In deciding which species to include, the author has attempted a compromise between the South African national tree list and Drummond's Rhodesian list of trees, shrubs and woody climbers, mainly by adding to the one and omitting from the other. The result is not very well balanced and we are faced by a large number of species which, even by the most liberal South African standards, do not qualify as trees.

The South African tree numbers are given where applicable, but the species cannot easily be traced by the numbers because of the mix-up with Rhodesian species and the different sequence - which is that of the Rhodesian numbers.

Naturalised species have been included, among them also many harmless remnants or occasional escapes, while notorious aggressors like Leptospermum laevigatum and Sesbania punicea, or the 'forest'-forming Opuntia ficus-indica have been omitted, presumably owing to unfamiliarity with South African conditions.

The nomenclature reminds us once more that the book is, in the first place, a Rhodesian production. The taxonomic treatment in F. White's Forest Flora of Northern Rhodesia, in Flora Zambesiaca and in Drummond's Rhodesian list of woody plants take precedence throughout. The strong tendency of improving on South African views is not confined to species shared with Rhodesia; it extends as far as the sinking of Canthium gilfillanii into C. mundianum, the suppression of the South African variety, angustifolia, of Dodonaea viscosa, and similar acts of violence. Where the common names are concerned, South Africa's conquest by Salisbury would seem to be complete.

Every opportunity to distinguish the book by introducing new and different standards of the author's own choice has been seized. Even the conventional abbreviations of author names have been dropped in favour of one of the more unorthodox draft lists recently in circulation.

All this is unfortunate and limits the book's usefulness for reference purposes. It is not easy in these times of rapid change to compile a good reference book of reasonably lasting value. It requires considerable experience and insight to differentiate between what has been or will be firmly accepted, and what has merely been suggested or is still being discussed and will eventually be rejected by the broad body of professional botanists. Popular writers, in particular,

would be well advised not to anticipate the scientific debate and, above all, not to try to get themselves involved.

The relatively best elements of the book are the descriptions of genera and species. They have been well researched and drawn up in a uniform, condensed and thoroughly clear style. That also here the new South African standards, for example, the use of millimeters instead of centimeters, or reservation of 'alternate' to distichous phyllotaxy, have been met, is regrettable, but perhaps less so than the disproportionately large space devoted to tribal and medicinal uses, witch-craft, etc. Each species is illustrated by a simple line drawing, in most cases a single leaf. Particularly where adapted from suitable sources the drawings are quite satisfactory, but in many cases they lack genuine typicality; in some cases they are pathetically poor, yet never really wrong. The complete neglect of scale makes the drawings less useful than they might otherwise have been. Besides, consistency is fine, but to illustrate also proteas by leaves instead of flower heads carries a principle too far.

An inclination towards rigid schematism, and even pseudo-perfection, is also noticeable elsewhere. For example, instead of leaving out the paragraph on bark characters where these are not really applicable or where no information was available, the space has been filled in either by laconic but meaningless statements (e.g. 'brown') or, one fears, more or less intelligent guesses. Quite often, the latter method seems also to have been applied in regard of flowering and fruiting seasons.

Another instance is the distribution maps added for all species. Deficiencies in distribution data were apparently supplemented by a measure of free imagination. The black patches with their romantic bulges and indentations have little if any scientific value. And yet, the maps give a better general idea of the distribution of species than the usual references in the descriptive text alone. The latter, however, have been omitted altogether, which is deplorable.

In the beginning of the book there is a glamorous key to the families. Unfortunately, one cannot see what practical use it could have.

The introduction boasts a chapter on protected trees which is the height of superficiality if not misinformation. There is an imposing list of prohibitions which allegedly apply in South Africa and South West Africa as regards indigenous and protected trees. However, the protected trees are not listed and the reader is not told that a great

number of different laws with widely divergent legal principles and implications, and administered by different authorities, are applicable. It does not help that Palgrave cites a mysterious 'Government Notice No. 5242' and states that trees given 'full State protection' thereunder are indicated in the descriptive text, when what he really means is Government Notice No. 1339, dated 6 August 1976, and issued under the Forest Act, 1968, and when he actually forgets to mention the protected status of quite a number of the affected trees in the species descriptions. Such status is also not mentioned in the cases of species protected under other regulations of the Forest Act, for example those for South West Africa; or under the Nature Conservation Ordinances of the four provinces and South West Africa; or under the Trust Forest Regulations; or under the various Nature Conservation Acts of Transkei, Bophuthatswana, the former Protectorates and the self-governing Homelands. The friend of nature who picks a leaf in order to compare it with Palgrave's drawings has at least one foot in the arrest cell: And so one could go on and on and on. It would not have been necessary to be as critical as this if Palgrave's book had not been promoted with such breath taking immodesty. This is not the Roberts of the trees. It is not the first book of its kind and will hopefully not remain the last one. It has broken an undesirable monopoly, but this is no reason why it should be accorded an even more privileged position for itself. On the very contrary, what is needed for real improvement is keen competition.

Palgrave's book is not without its merits. It is a highly ambitious exercise, certainly very stimulating and good to look at, but put together with somewhat less than due care. For all its shortcomings it is a big step forward and at R15, good value for money.

The publishers, well known in the past as Africana specialists, are newcomers to the conservation scene. Their superior expertise in producing Palgrave's book commands respect. If I had a prize to award, they would get it. (F. von Breitenbach)

#### RECENT PUBLICATIONS

##### Publications of the Botanical Research Institute:

Flora of Southern Africa: Cryptogams, vol. 9 (Characeae) 1978.  
Price R4,25. Overseas R5,30. Post free.

Memoirs of the Botanical Survey of South Africa: No. 42. Vegetation of Westfalia Estate on the north-eastern Transvaal escarpment by J.C. Scheepers (1978). Price R7,95. Overseas R9,95. Post Free.

Flowering Plants of Africa: Vol. 45, 1 and 2 (1978). Special succulent plant issue. Price R10. Overseas R10,20. Post free.

Bothalia 12,3: Price R7,50.

Natal Town and Regional Planning Reports: Vol. 38. A vegetation study of the Zululand dune areas by P.J. Weisser (1978), pp. 64. Price R3,30.

All except the last-named are obtainable from the Division of Agricultural Information, Department of Agricultural Technical Services, Private Bag X144, Pretoria. Dr. Weisser's report is obtainable from the Institute at Private Bag X101, Pretoria.

The National List of Trees: The second, revised and enlarged edition of this extremely useful little booklet by Dr. B. de Winter and Mr. J. Vahrmeijer has recently been published by Van Schaiks of Pretoria at R1,50. This new edition was compiled by Dr. de Winter of the Botanical Research Institute, Pretoria, and Dr. F. von Breitenbach of the Forest Research Institute, Pretoria.

Since its first publication in 1972, this little booklet has become very popular: as a handy means of identifying trees marked with tree numbers along highways and hiking trails, in nature reserves and recreation resorts, and also as a general tree names quick-reference aid for use at home, in the office, in the class-room and in the field.

Unfortunately, it has been out of print for some time. The new edition was unavoidably delayed by the necessity for a thorough revision. Besides a considerable number of status and name changes as well as additions and omissions of taxa, this also involved the mammoth task of setting up a standard system of common names for all our indigenous trees.

Against the 968 numbered taxa of the old list, the new list comprises 1 017 taxa (917 monotypic species, as well as 58 subspecies and 42 varieties of another 65 species) occurring in South Africa, South West Africa, Transkei, Bophuthatswana, Lesotho, Swaziland and Botswana. They belong to 367 genera and 96 families.

A total of 85 taxa have been added. Some of them are new discoveries.



Other additions concern a few tropical taxa which have recently been recorded for the first time from the area of reference.

The remaining 70 additional taxa are woody plants which sometimes reach tree size. The tree list includes now some 20% of such border-line cases, that is, tall shrubs, shrubby trees, dwarf trees and woody climbers. It should be borne in mind that the growth form of many woody plants is variable and, like the size at maturity, depends very much on the site as well as community and environmental influences.

This is a major contribution to botanical science. General aspects of the classification of Stapelieae are discussed, with particular reference to the difficulties caused by the apparent paucity of good "marker" or "exclusive" characters at genus level. The genus Orbea is reviewed, two new species are described and three new sections with five more subsections established. Diplocyatha N.E. Br. and Stultitia Phillips, with a few exceptions from the latter, are taken into the synonymy of Orbea, and three new genera set up to accommodate those excluded in addition to some Caralluma species of the C. keithii affinities. Artificial keys are provided at the various category levels as well as maps showing distributions.

Individual botanists, libraries, universities and botanical research institutes especially those interested in succulent plants in general and stapeliads in particular cannot afford to be without this first volume.

The price per copy is \$5 Rhodesian currency, inclusive of packing and postage to all parts of the world, and those interested in purchasing one or more copies should send their remittance to the Society as soon as possible as the print order is limited to 400 copies. Cheques or drafts should be made payable to Excelsa. Contact address is Box 8514, Causeway, Salisbury.

S.A.A.B. CONGRESS - 1979: The Annual Congress of the Association will be held at the University of Stellenbosch from 25-28 January. Members of Council will meet on the 24th January. The final circular was sent out to all those who indicated their intention of attending.

Accommodation will be provided at the University's Majuba Hostel

and all sessions will take place in the magnificent new Conservatorium of Music. The Congress will be preceded by the meeting of the Grassland Society in Stellenbosch and will be followed by a special course on pteridophytes at the University of Cape Town to be given by Professor E.A. Schelpe.

For the first time notification of a congress programme is being sent to SAAB members prior to the Congress so as to help those attending to plan their time more effectively. It is hoped to do this for all future congresses.

Contact address: Dr. O.T. de Villiers, Department of Biochemistry, University of Stellenbosch, Stellenbosch, 7600.

MEMBERSHIP LIST OF SAAB: This list is being distributed with this issue of Forum. It was up-to-date at the end of May, 1978. As the end of the year has arrived, several changes will no doubt occur in members' addresses. Please inform the editors of any changes as soon as possible.

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