

AUSTRALIAN SYSTEMATIC BOTANY SOCIETY

NEWSLETTER

Newsletter No. 16

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ASBS Council

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This publication, the official newsletter of the Society, is produced four times each year and deadlines for copy are the last day of February, May, August and November.

Please send contributions, preferably typed in duplicate, to the Editor, at the address below. Items from any source and of interest to members are acceptable. Items incorporated in the newsletter will be duly acknowledged.

Please note: Next Deadline is 30 November, 1978

Subscriptions for 1978 were due 1 January
(Members in Australia \$6-00
Overseas Members US\$8-00 or equivalent)

Editor: Mr. A. S. George,
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The Flora of Australia

This newsletter is intended, amongst other things, to enable the systematic botanists in the country to argue with each other, over distance, about subjects which interest and affect them. The new editor has set about throwing spanners around, although probably that's not quite the right metaphor, and I would like to comment on his suggestion about the Australian Flora. Do we have to wait for another Bentham? Can we write our own in the fashion of the Central Australian Flora? Should A.S.B.S. sponsor it?

Firstly, a Bentham is scarcely what is needed. We do not want someone sitting in the vastness of a European herbarium, or even an Australian herbarium, being fed specimens and information by other people. Don't let us be fooled by Bentham's justified reputation as an herbarium botanist; it is not possible to write a flora of Australia like that now. Bearing this in mind, neither is it possible for one person to carry out the necessary field work and herbarium work to write a flora by himself, or, I hasten to add, herself. What is necessary is someone who can orchestrate all of us to produce it. This would be a difficult symphony to conduct since each taxonomic institute has its own tune to play which need not necessarily correspond with the needs of the Flora project. The Central Australian Flora is likely to succeed only because it is a relatively small project and unlikely to demand too many man-hours from the taxonomic institutes.

It is, of course, for these reasons that many of us have supported the formation of a botanical taxonomic research unit whose function is to produce a definitive Flora of Australia, with assistance from the present taxonomic institutes where possible and where appropriate. We had hoped A.B.R.S. would fulfill this function but the Federal Government's stringent financial policy seems to preclude this at present. Furthermore the ASTEC report, for some unaccountable reason - and I use unaccountable advisedly since there is no public record of the reasons for the decision - have seen fit to place some considerable emphasis on the production of regional floras. Of course regional floras are needed - I could hardly say otherwise since I helped to write one. That they fulfill a public need is clear since, at least near the centres of population, the public buy them in large numbers. There may be a case for subsidizing the production costs as a social gesture but otherwise I question the need for A.B.R.S. to be directly involved in such ventures. However, the regional floras are only as good as the revisionary work that they are based upon. When I talk about an Australian Flora I mean a series of revisions, on a continent-wide basis at least, and taking into account extra-Australian taxa. The descriptions should be definitive and the nomenclature should be argued to a logical conclusion. There is, of course, always the problem of deciding when the definition argument have been concluded satisfactorily but I will not enter that argument at this stage.

Since there is at present no possibility of a research unit specifically charged with the production of the Flora of Australia, I think what we decided at the last A.S.B.S. General Meeting in Melbourne a satisfactory development. It arose from suggestions by Hansjoerg Eichler, in a letter to various botanists over the country, and some unofficial comments, unconnected with Hansjoerg's letter, by David Ride, Director of A.B.R.S. In effect, it means that published revisions of Australian taxa, should they satisfy a number of criteria, will be designated as a contribution to the Flora of Australia. It was suggested that A.B.R.S. should buy offprints of the revisions and distribute or sell them as a series. The details were not finalized but I would hope before they are the Society would be consulted. I understand that A.B.R.S. has accepted the idea in principle.

Thus, in a sense, we are doing just what Alex suggested in his editorial. That the work is not being produced as a book neatly labelled "Flora of Australia" on the spine does not matter two hoots, we can all submit our work as a contribution to the Flora of Australia in just the same way as though it were published as a separate book. It will even be possible, with the acquisition of off-prints, to bring all this work together into a single series. Moreover, our work towards this end can be published where we like. This we called the "Undirected Flora" but really this is unsatisfactory. There is a problem of direction -the orchestration, that is defining where work is needed, ensuring deadlines are met, commissioning revisions etc., etc. This, again, should be the task of A.B.R.S. but without a plant taxonomist on the staff of that group it will, presumably, fall to the lot of its Advisory Council the result being the camel that every committee designs. The Society has made representations to the Minister with regard to the appointment of a plant taxonomist as leader of the Flora Project, but without success as yet.

So, I would suggest that it rests with us whether the "Contributions to the Flora of Australia" eventually become "The Flora of Australia". It is up to us to ensure its success by contributing.

I think that there probably is one project that the Society can undertake when the Central Australian Flora is completed: one which will supplement the Contributions to the Australian Flora, which will be invaluable in teaching the subject.

Some years ago Professor and Mrs D.J. Carr suggested the production of a Generic Flora of Australia and this although possibly a little more ambitious than the Central Australian Flora, is a project of the same order of effort. It can be produced by a number of contributors and controlled by one or two editors. A market should be reasonably secure so that it should be possible to produce it commercially although a subsidy to reduce its price would help to reach a wider public, particularly students.

I would ask members to take advantage of this newsletter to comment on this or any other matter which they feel is of interest to other members. The General meetings occur only about once every eighteen months and unless there is an input of ideas from the general membership the Council has to take decisions on many matters without the benefit of your opinions.

Roger Carolin

"THE LIFE OF J.M. BLACK"

A Talk given to the A.S.B.S. (South Australian Chapter) on 21st July, 1978 at a dinner to mark the publications of J.M. Black's "Flora of South Australia". Part 1, 3rd edition.

John McConnell Black 28.4.1855 - 2.12.1951

I first met John McConnell Black in 1947 when, as a very raw recruit in the field of systematic botany, I was working at the Waite Institute. As I remember him, J.M. Black was a very thin man, short in stature, a little stooped, - with a fine domed head, and very alert eyes. He was a little hard of hearing and his hand writing a little shaky but quite legible. I was very impressed by his great knowledge and also by his gentlemanly courtesy. He would whistle gently to himself as he climbed the ladder to get down specimens from the top shelf. Specimens always seemed to be high up and I was most concerned lest he fell from the ladder, but he was very independent and insisted on getting the heavy herbarium boxes himself.

This was in 1947. He was 92 years old, still working every day and still working meticulously and accurately. In his study at 82 Brougham Place, North Adelaide he had his own small library and an extensive private herbarium with representatives of most species recorded from South Australia, many collected by himself.

To quote a report in the Australasian Herbarium News No.1, June 1947 - "For 40 years or more the advice of Mr. J.M. Black has been gladly given on any difficult point, in a purely honorary capacity to all enquirers including State officers and those responsible for the State Advisory Service. This has, in practice, relieved the State of the need to secure the services of an experienced professional systematic botanist".

Black was already the author of 2 books, "The Naturalised Flora of South Australia" (1909) and "Flora of South Australia" Parts 1-4 (first edition 1922-29) and of the second edition part 1 had come out in 1943 and I knew he was at that time finalising Part 2.

What was the background of this remarkable man?

He was born on April 28, 1855 at Wigtown, Scotland. His father George Couper Black, a bank manager, died when J.M. Black was a boy. He was educated at two schools in Scotland and one in England, and finally attended a business school in Dresden, Germany where he was well-grounded in the elements of commerce and as he himself recalls in his Memoirs "thereafter all my life added up in German" (1)

He worked in two banks in Edinburgh and London before emigrating in 1877 at the age of 22 years to South Australia with his mother, his sister Mathilda and his brother Alfred. His other sister, Helen, a brilliant scholar, remained in England and later married D'Oyly Carte of Gilbert and Sullivan fame. She managed the Opera Company's affairs with considerable success.

In Adelaide in 1877, despite good references, young J.M. Black was unable to get a position in a bank. He was advised to try wheat-farming. He took up 530 acres of salt-bush country at Baroota near Port Pirie and battled at clearing the land. This was a heart-breaking experience. One hundred years ago this winter (1878) entries in his diary are very despondent. He had little knowledge of farming, the only labour available was unreliable, the season was dry and the horse he bought "had the temper of a fiend" and the area was only marginally suited to cereal growing. Living alone in an iron shed where the summer temperature sometimes reached 119 °F, life was very dreary for the young man with literary tastes who loved the theatre.

However, there were high spots in this era of his life. His interest in the arid zone flora and the aboriginal language was aroused. He recorded in his diary the aboriginal names of plants on his allotment as told him by aborigines in the district.

Then an entry in his diary 11 September 1879 reads "married dear Alice". This entry is in Spanish as are others he wished to remain private. Throughout his life J.M. Black kept diaries and entries in these may be in any one of several languages. He was a competent Linguist and knew Latin, German, French, Italian, Spanish, some Russian and later learnt Arabic from an Afghan accountant.

His wife Alice Denford came from a pioneering farming family. She soon realised the poor prospects of the Baroota venture. In the evenings by hurricane light she helped J.M. Black learn Pitmans Shorthand and in March 1883 with a position secured on the staff of the daily newspaper "Register" they left the farm.

After a year of so he transferred to the opposing daily, the "Advertiser", and rose to be senior reporter with the literary staff there. He was held in high regard by his press colleagues for his wide knowledge especially in history, geography and languages. He capably handled a wide variety of assignments including regular parliamentary reports. Of Parliamentary reporting, Black said it consisted "chiefly of putting sense and grammar into long-winded guff". Of Royal Commissions (for which he was frequently appointed secretary and shorthand writer) he said "Royal Commissions are one of the biggest and most expensive humbugs connected with Parliamentary government. They are often appointed in order to save the Ministry from the difficulty and danger of dealing directly with some question which is exciting the public mind".

After more than 20 years on the Press, J. M. Black received a legacy at the time of his mother's death and, in 1903, enjoyed an overseas holiday with his wife Alice, travelling to England and Europe via South America. He had now retired from full-time journalism but continued to work on various commissions and to do parliamentary reporting on a sessional basis until 1928.

This, then, was the background of J. M. Black, whom we know of as a botanist. A background of a broad education for a business career, a brief time in banking, an arduous five years at farming, and a stimulating energetic twenty years as a journalist. He was very happily married with four children.

Having retired at 47 years of age, Black was free to devote himself to his special interests for the remainder of his life - which was (as it turned out) almost half a century. He had ability, intellectual tastes and a passion for study. Botany was one of his chief delights. With his wife he bicycled about the suburbs, foothills and nearby districts - further afield he went by train. He collected extensively and frequently made detailed sketches of his specimens (either on the label on the herbarium sheet or in one of his numerous note-books). He joined the Field Naturalists section of the Royal Society of South Australia in 1905 (or maybe earlier) and played an active part in this organization. J. G. O. Tepper, R. S. Rogers and Edwin Ashby were prominent Field Naturalists of this period. As chairman of the Field Naturalists in 1907 he gave an address "The classification of flowering plants" - an interesting historical account. The following year, 1908, again as chairman, his subject for the 25th annual address was "Botanical researches in South Australia". He said he "selected the subject for the purpose of stimulating the members of the section to aid in obtaining a more perfect knowledge of the flora of this great country". He is reported as saying "Native plants are rapidly disappearing in the settled districts (of South Australia) and are to be found only in remote gullies and other inaccessible spots. Scarcely a single native plant is to be seen growing spontaneously in the Adelaide parklands except for an occasional Vittadia australis (probably V. triloba); a small perennial which seems to possess unusual endurance. The Australian plant, like the Australian aborigine, tends to disappear before the invader".

J. M. Black served on the Native Fauna and Flora Protection Committee of the Field Naturalists for many years (from 1908-1938) and was a member of that Committee in 1919 at the time of the final successful effort to obtain Flinders Chase on Kangaroo Island as a reserve. He was one of a small deputation of three (with Captain S. A. White and Samuel Dixon) who waited on the then Attorney General, the Hon. H. N. Barwell, urging the importance of planting soft woods Pinus insignis (now P. radiata), Pinus canariensis and Pinus maritima in the proposed reserve area. None of these trees had yet become aggressive weeds and the bait of wealth from afforestation with soft woods was offered the government as an economically sound reason for creating the reserve. In Dixon's word "for what ought to become, and will, if South Australians insist, a large self-paying and invaluable State possession, and to our immediate posterity a proudly-owned and unmatched treasure of the highest value to Australians and the scientists of the world". (3)

Black's first important botanical work was the small book "The Naturalised Flora of South Australia" illustrated with his own fine line drawings. It was the first book in Australia to describe the numerous immigrant plants which were so successfully replacing the native flora. (No pines are mentioned). He published this little book in 1909 and surprisingly made a small profit. It sold for 5 shillings a copy at first and later records show sales at 3 shillings and 11 pence, and 3 shillings and nine pence.

He was elected a fellow of Royal Society of South Australia in 1907 and presented his first paper⁽⁴⁾ to that society in August 1909 - the title -"Descriptions of *Micrantheum demissum* and of New species of *Solanum*, *Pultenaea* and *Grevillea*." It was the first of a series of papers to become known later as "Additions to the Flora of South Australia". He had done his homework well before presenting this first paper. He had:-

- (1) Searched the literature,
- (2) checked Bentham's Flora Australiensis,
- (3) checked Tate's Flora of Extra-tropical South Australia,
- (4) checked in Tate's herbarium in the Adelaide University,
- (5) sent specimens to Melbourne for comparison with the TYPE,
- (6) sought the opinion of Professor Ewart of Melbourne University,
- and
- (7) made good illustrations.

His homework was indeed well done.

In 41 years, 45 of his papers adding information to the flora of South Australia appeared in the Transactions of the Royal Society; all illustrated by Black himself

During this period, in January 1920, Dr. John Burton Cleland (later Sir John) returned to Adelaide to live and, as he wrote later, "a new flora was eminently desirable and I particularly wanted one. J.M. Black, a youngish man then, of about 65.... who had already made a name for himself by the study of the South Australian flora, was the obvious man for the job".⁽⁶⁾ And so, the Flora and Fauna Handbooks idea was born.

When J.M. Black's sister Helen D'Oyly Carte died in 1913 he received his second small legacy. He moved to 82 Brougham Place, North Adelaide -an address which was to become well known to botanists throughout Australia. Here he lived and worked for the rest of his life. It was in his study at 82 Brougham Place that the Floras were written and it was to his study at 82 Brougham Place that we went for help in identifying troublesome specimens.

J.M. Black was always modest about his work and also characteristically always meticulous in his business affairs. An extract from a letter to Con Eardley dated 12 February 1942 illustrates both of these qualities. "I have made a codicil to my will, leaving my herbarium to the University if it cares to accept it. The only stipulation is that the University will pay any succession duty levied by the State." Needless to say the University did accept the offer of the herbarium which duly came into its possession after Black's death on December 2 1951. Professor J.G.

Wood wrote to the Executor Trustee Company, at the time of Black's death "concerning the valuation (of the herbarium), the collection is valuable from a scientific point of view, for commercial purposes we value the collection at 100 pounds".

My final words are those of Con Eardley, who wrote a few weeks after his death, "For half a century J.M. Black was a botanical institution in Australia, regarded with the greatest respect and affection by his colleagues; though we have lost him the gift of his work will remain a strength to us far beyond his days". (6)

References

- (1) Black, J. M. (1971). "Memoirs of John McConnell Black". (E. C. Black et al: Adelaide).
- (2) Register, Adelaide. 22 September, 1908: 3
- (3) Dixon, S. (1920). "The full story of Flinders Chase, Kangaroo Island South Australia". (S. Dixon: Adelaide).
- (4) Black, J. M. (1909). Descriptions of Micrantheum demissum and of new species of Solanum, Pultenaea and Grevillea. Trans. R. Soc. S. Aus. 33: 223-5
- (5) Cleland, J.B. (1952). John McConnell Black, A.L.S. S. Aus. Naturalist 26: 62-3
- (6) Eardley, C.M. (1952). John McConnell Black, M.B.E., A.L.S. Aust. Herb. News 10: 1-5

Enid Robertson

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Flora of South Australia, Part 1, Third Edition

Botanists will be delighted to see that the first part of the third edition of the Flora of South Australia has been published. Government Printer Adelaide 6/7/78, \$16.90. This revised and edited by DR. J.P. Jessop, State Herbarium of South Australia, with the assistance of a dozen colleagues contributing special skills. The book is in A5 size, handles well and has an attractive new cover and an unattractive new price. A few statistics of the changes follows: pages in the 1st Ed. 154; 2nd Ed. 253; 3rd Ed. 466 (slightly smaller pages). Illustrations: 1st Ed. 43; 2nd Ed. 302; 3rd Ed. 467 plus 16 colour plates. Genera included: 1st Ed. 188; 2nd Ed. 247; 3rd Ed. 275.

Some of the major changes in the format of new Edition include the addition of place of publication of species names, and a scattering of references to recent accounts of species or genera. Many more common names have been added - many of doubtful common use, particularly in South Australia, and imported from Victoria. Many new illustrations have been included. The little illustrations in Black have long been appreciated and JMB's own skill in this field is evident. Dr. Jessop has obviously considered an illustration, or reference to one to be important. This

was also done by Dr. J. H. Willis in his "Handbook to Plants in Victoria" and reinforces the need for a comprehensive set of authoritative illustrations of Australian plants comparable to Stella Ross-Craig's "Drawings of British Plants". Mr. L. Dutkiewicz has made very useful additions to the orchid illustrations. For the first time colour plates have been added and include 16 pages drawn by Mr. C. E. Woolcock. Botanical artists may be interested to know that these are based not on watercolours, but on drawings done with coloured pencils.

There has been no drastic reworking of the taxa. Species descriptions have been updated rather than revised. The grasses have been arranged in tribal groupings, Liliaceae is used in the broad sense and includes Xanthorrhoea, Calcectasia and allies.

Three new species of *Juncus* are described and eight new combinations made (1 fern, 7 orchids).

Within families, the tribes (where they occur) genera and species have been arranged alphabetically.

The keys have been substantially rewritten. The paragraphs on distribution have been completely rewritten bringing them into line with the subdivisions of the State used by the Herbarium. A line on flowering times has been added. The glossary has been enlarged.

A new key to all botanical families in South Australia is included and one hopes this foreshadows the vigorous preparation of the revised volumes 2, 3 and 4.

The volume ends with an index to genera and families, and a map of the State with the subdivisions used by the State Herbarium, has been printed inside the back cover.

Black's Flora has a unique place amongst Australian floras. First produced by an amateur botanist, and started at an age when most people retire, Black not only completed the first edition but lived to revise the first three volumes before he died at the great age of 96. Not many would realise that the first years of Black's life overlapped the last few of Robert Brown. Mrs. E. L. Robertson completed the final volume of the second edition. This was followed by the massive 'Supplement' to all volumes prepared by Dr. H. J. Eichler. The Flora remains a basic text for all concerned with plants in South Australia. The wide use in southern and arid Australia of the early editions was a measure of its success and the third edition will enhance its place.

D. E. Symon

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CORRECTION OF DATE

John McConnell Black died on 2 December, 1951. Unfortunately in two recent publications his date of death is incorrectly given as 1 December.

E. C. Black, a son, and M. W. Andrew, a grand-daughter of J. M. Black each made this error in separate sections (see pp. 7 and 106) of the book which an editorial committee of the Black family published in 1971:-

Black, J. M. "Memoirs of John McConnell Black" (E. C. Black et al; Adelaide, 1971).

The error is perpetuated (on page 3) in "Flora of South Australia" Part 1, 3rd edition, revised and edited by John P. Jessop (Government Printer: Adelaide, July 1978).

Enid Robertson

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SEARCH FOR A PERMANENT INK

It is well-known that ballpoint pen inks often fade very quickly, even in a few weeks if in direct sunlight. This may be the main reason why it is generally agreed that the use of ballpoints on permanent labels, such as Determinavit Label, should be avoided. On the other hand, this defect is not restricted to ballpoint pen inks and, in one experiment conducted here with a so-called Indian ink, the ballpoint ink seems to be surviving sunlight slightly better after more than a year. I do not know of any tests or published data on which the preference for pen inks could be based and would be interested to know of any such information.

Few, if any, herbaria use archival paper for Determinavit labels and according to the most pessimistic estimates we may, therefore, not be looking for longevity of much more than 50 years. Nevertheless, I have written to several leading ink &/or ballpoint pen manufacturers asking what they would recommend for a longevity of several hundreds of years, preferably alcohol - and water-proof. I mentioned that I assumed that a pen ink rather than a ballpoint would be the answer, but that a ballpoint might have advantages if there was a suitable one.

Gunther Wagner (Pelikan) and A.W. Faber-Castell requested samples of our paper and we supplied archival paper such as we are using for some of our labels and are considering for our Determinavit Labels. The replies of these firms were:-

Pelikan. "The tests in our laboratories showed that the only solution of your problem, which we can offer, is the use of our ballpoint pens. The script is waterproof and alcohol-proof, ie suitable for documents and does not seriously affect the paper. We are, however, not in a position to confirm that it will not fade 'after a couple of centuries'." The refill enclosed bears the number 37 and DIN16554; the ink is black. The Adelaide branch of their importers inform me that these pens would have to be specially imported.

Faber-Castell "We have pleasure enclosing for you a pen which according to our knowledge has the best ink properties available at the moment in regards to light fastness and aging. The pens have, besides highly light fast dye-stuff, a pigment incorporated which due to our knowledge today should give extremely good fastness to aging." The pens enclosed are simply labelled Faber-Castell 032 Fine (or Medium) and not obviously different from those generally available.

The maker of one "permanent" ink doubts if their ink would last the several centuries we would have liked. They suggested that "Indian Ink" might be best, used with a dip pen, but do not make such an ink themselves.

It appears that, although many herbarium curators may not be happy with ballpoint, this could well be the best answer. Certainly we do need to know if there are any real problems with either the above makes of ballpoints as compared with the inks in current use. I would be extremely interested to have comments on this subject.

John Jessop - 7 July 1978

CSIRO/ACADEMY OF SCIENCE : JOINT REVIEW OF THE AUSTRALIAN JOURNALS OF
SCIENTIFIC RESEARCH

Since 1948 CSIRO has had responsibility for publishing this journal series in the fields of Agricultural Research, Biological Sciences, Botany, Chemistry, Marine and Freshwater Research, Physics, Plant Physiology, Soil Research and Zoology, under a joint agreement, initially with the Australian National Research Council and (since 1957) with the Australian Academy of Science. The Journals are under the overall direction of a Board of Standards appointed jointly by the Council of the Academy of Science and the Executive of CSIRO.

A joint committee is now reviewing these journals and their function in 1978, including such points as the scientific justification of them and their optimal distribution and coverage of scientific fields.

If any members have comments to make on these journals, either favorable or unfavorable, please send them to Karen Wilson by 30th OCTOBER for incorporation in an official ASBS submission.

Karen Wilson

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SYMPOSIUM
BIOLOGY OF NATIVE AUSTRALIAN PLANTS

University of Western Australia

6 - 10 August, 1979

The Conference is being sponsored jointly by the Western Australian Wild Life Authority and the Botany Department of the University of Western Australia. We are negotiating with the University Press with a view to publishing the review papers as a book. It is expected that abstracts of all other papers will be published at the time of the Conference. We are hopeful of attracting considerable local financial support for these ventures, especially as it is the State's Sesquicentennial Year, and there is much genuine interest in native flora among the public at large.

There will be a core element of a dozen or more solicited review papers (probably of one hour duration) in which certain well researched key-note areas will be discussed. The remainder of the Conference will be organized according to topic, depending on the nature and scope of the many unsolicited papers which we hope will be offered by the attending members. It may well be that groups of closely related topics will evolve.

Depending on response of participants, field excursions will be arranged and we would hope to make every effort to help persons wishing to inspect /collect flora whilst attending the Conference.

Poster Displays will be encouraged and the opportunity presented for informal discussion in relation to these displays.

The Conference accommodation on campus is limited, but a booking of 50 places has been made in St. Catherine's College, one of the residential halls of the University of Western Australia. Accommodation charge on an all-meals basis is likely to be of the order of \$16 per day. Private billeting will be available and there is also limited hotel accommodation close to the University.

Steering Committee:- Professor J. S. Pate, Convenor
Dr. J. W. Green
Mr. S. Hopper
Dr. S. H. James
Associate Professor A. J. McComb
Dr. E. Mattiske

Department of Botany, University of Western Australia, Nedlands, Western
Australia 6009 20 June 1978

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REQUESTS FOR MATERIAL

Calandrinia

Salseha Hassani has started a study of the genus Calandrinia (Portulacaceae) in Australia. She would be grateful for seed material of any species, particularly viable seed. Material may be sent to her at "Botany Building, University of Sydney, Sydney NSW 2006".

Chromosome Numbers of the Australian Flora

A project to list known chromosome numbers of the Australian Flora to replace the last (1955) listing in the Australian Plant Breeders and Genetics Newsletter has been underway for several years and is now nearing completion.

The list will be in alphabetical order for families and organized as follows:-

| Taxa | n | 2n | Locality | State | Voucher + where lodged | illustration |
|------|---|----|----------|-------|------------------------|--------------|
|------|---|----|----------|-------|------------------------|--------------|

It is hoped that the initial listing will be available in mid 1979 as a Kings Park Research Note for distribution to interested persons.

This note is to appeal for help in certain areas:-

1. Could I suggest to members that papers detailing cytogeographical studies be accompanied by an appendix (not necessarily published) listing localities and vouchers. Dot maps may be cheaper to publish, but have caused myself much trauma in attempting to list the counts (so future workers can relocate areas already known cytologically.)
2. I would appreciate receiving a reprint of any paper which is concerned with listing new chromosome counts or re-determines chromosome count vouchers. Attempting to keep pace with nomenclatural changes and the numerous places authors hide chromosome counts is almost impossible for one person.
3. Any research workers who have stray chromosome counts or cytological studies of some antiquity which they do not intend to publish, would be most welcome to place them in a special number of Kings Park Research Notes (either on a personal communication or published basis) which I am preparing for this listing. Several authors have already agreed to have their "dusty" counts made available. Each contribution will be given as a separate paper under the contributor's authorship.

Greg Keighery, Kings Park & Botanic Garden, Perth W.Aust. 6000.

CHAPTER NEWS

Adelaide Chapter

A highlight of the year was the holding of a dinner to mark the commencement of production of the 3rd edition of J.M. Black's Flora of South Australia. Over 50 people attended, mostly members and companions. Enid Robertson, who revised Pt. 4 of the 2nd Edition following Black's death, spoke briefly on the life of Black, while John Jessop, who was the principal author and editor of the first instalment of the new edition, compared the coverage of the various works on the South Australian flora. David Symon toasted the Flora.

On Wednesday 31 May two talks were presented. David Symon spoke on "Fruit and seed diversity and dispersal in Solanum". The great variety of fruit types indicates a variety of methods of seed dispersal. Bill Barker spoke on "Advances in the knowledge of Floral biology and evolution in Australian indigenous Scrophulariaceae". Bee visitors to the flowers of Stemodia in Western Australia appear to be mainly restricted to species of a single subgenus, while only a few species of bee appear to visit Euphrasia in Australia. Evolution in the close-knit group of genera Mimulus, Peplidium, Microcarpaea, Glossostigma and Elacholoma involves changes in all floral organs with spectacular adaptations to bee pollination and the development of autogamy and cleistogamy.

On June 26 John Jessop gave "A personalized account of the South African flora". After an introduction to the geography and the development of plant taxonomy in the country, he discussed the flora of the various main vegetation types.

On July 26 there were again 2 speakers. Marg Lawrence spoke on "Natural and artificial hybrids in Senecia", in which she demonstrated the methods used in her breeding experiments and reported some interesting data from her continuing breeding programme. Bob Chinnock reported on "Reproduction in Myoporaceae". He dealt mainly with Eremophila which can be divided into 2 main groups based on corollas adapted to bee (mainly) or bird pollination. A variety of floral arrangements occurs in each of these types to ensure outcrossing. A subdivision of the genus based on such characters seems more natural than previous groupings based on the calyx.

Coming Meetings

Wednesday 27 September - Peter Kloot (ADW):

"Alleged aliens and inferred indigenes - a reappraisal of the origin of selected species in the South Australian flora".

Wednesday 25 October - Mr. R. H. Fisher (Author of "Butterflies of South Australia"):

"Larval food plants of South Australian butterflies". Mr. Fisher will lead an afternoon excursion to the Mt. Lofty Ranges on 28 October to illustrate his talk.

Bill Barker - Convenor

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Who said this? He was a botanist floundering for the lack of a modern Australian flora, but a prominent Australian. Answer next issue.

"I am not to be trusted to tell one flower from another. I'm pretty good on roses and can tell a violet when I see one. I think I can tell a Geranium ... but sometimes I am wrong".

Brisbane Chapter

On 27 June Mr. Martin Peart of the Queensland Agricultural College, Lawes (Gatton) spoke on the "Role of Diaspore Appendages in Grasses". This interesting talk, well illustrated with tables of statistical data on dispersal in selected species of grasses, summarized Martin's research to date of work to be submitted for a PhD at the University of Queensland. Several myths concerning the adaptive role of various types of appendages in diaspores were revealed, and it was postulated that many appendages had more to do with establishment of the diaspore than with its dispersal.

On 8 August Dr. Rosemary Purdie (BRI) spoke on "Strategies of Pyric Regeneration in Plant Communities" to a large turnout of members and visitors. Rosemary presented her knowledge of fire ecology in Australia with a selection of coloured slides, covering most plant communities from rainforest to semi-arid areas. This was followed by a series of flow charts for some of the communities studied in greater depth, illustrating what effects fire has on the community concerned at different times of firing. A lively discussion took place during question time, which itself was almost as long as the formal talk, a fair indication of how controversial the subject of fire is and how much the presentation of the evening's talk was enjoyed by all.

At the meeting a new committee of Laurie Jessup and Cheryl Scarlett was nominated for 1978-1979.

News John Clarkson (BRI) and Bill Lavarack (Queensland National Parks and Wildlife Service) recently undertook an expedition to the McIlwraith Range (Cape York Peninsula) together with three other orchidologists, to study and collect orchids of the area. The expedition was funded by the Australian Orchid Foundation and most of the exploring of the area was done on foot. Of the 76 orchids previously recorded from the area, 60 were observed and fertile material, where available was collected. Many other plants were also collected by John for BRI.

Les Pedley and Rod Henderson both departed for overseas during July, Les on three months leave during which time he attended the International Legume Conference at Kew, and Rod to take up his position as Australian Botanical Liaison Officer at Kew for 1978-1979. Rod travelled to the U.K. via New Caledonia, Fiji, Hawaii, California, Missouri, Washington and New York, at which places he visited botanical institutions and had discussions of mutual interest with botanical colleagues.

Corrections ASBS Newsletter 15:12 line 1: for "of types" read "off-types" and line 2: for "Charters Lawes" read "Charters Towers".
Dept. of Primary Industries Botany Branch & Queensland Herbarium Annual Report 1977-78 p.22 line 6: for "Stipa" read "Aristida"

B. Simon and C. Scarlett - Committee.

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DONATION TO THE NANCY BURBIDGE MEMORIAL LECTURE

Mrs. Margaret Boots, A.C.T.\$20.00

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Perth Chapter

Summary of a talk given on 25 July by Alex George.

About 250 km south of Derby the McLarty Hills rise above the dunes of the Great Sandy Desert. They are low mesas and rises of Jurassic sandstone supporting mostly a Triodia steppe in a rainfall of probably 250 mm. During a 4-day visit in August 1977, about 110 species were collected, mostly typical desert species with some outliers of Kimberley flora. Of special interest are new species of Comesperma and Templetonia from the nearby dunes. Two days were spent at a permanent freshwater soak 25 km south west of the Hills. It has since been named Dragon Tree Soak after the stand of Sesbania formosa which dominates it. The centre contains a pure stand of Baumea articulata, previously known in W.A. only from the South West. The clay flats and sand dunes around the soak support a flora rather different from that of the McLarty Hills, and about 80 species were collected here, including a new, shrubby species of Heliotropium. The strange Desert Walnut (Owenia reticulata) is common on the dunes, often with an understorey of Melaleuca glomerata. The collections will provide useful new data for the Central Australian Flora.

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Sydney Chapter

Topics and speakers for the rest of 1978 are as follows:

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|-------------------------|---|
| Wednesday 6th September | Mr. Peter Weston (University of Sydney) Classification and phylogeny in <u>Boronia</u> |
| Tuesday 19th September | Dr. Eugene Moll (University of Cape Town) The fynbos flora of South Africa compared to Australian heathlands. |
| Wednesday 4th October | Ms. Bobbie Wilson (Sydney) - the dispersal of <u>Eucalyptus</u> throughout the world. |
| Tuesday 10th October | Prof. Phillip Regal (University of Minnesota) The role of pollination and seed dispersal in angiosperm evolution. |
| Wednesday 1st November | Mr. Allan Correy (University of Sydney) - Landscape management. |
| Tuesday 5th December | Mr. Jim Armstrong (Botanic Gardens, Sydney)- Pollination biology of the Australian Flora - A review. |

R. Carolin and K. Wilson - Convenors.

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Victorian Chapter

Summary of Lecture

At a meeting of the Victorian Chapter of the ASBS held at the University of Melbourne, School of Botany, on 7th August, Dr. F.G. Lennox, honorary Professorial Associate at the School, spoke about preliminary investigations he has made on "The fluorescent pattern of leaf tissue as a simple aid in plant identification". For certain species, including Triodia, Comesperma, Templetonia, Baumea articulata, Sesbania formosa, Heliotropium, Owenia reticulata, and Melaleuca glomerata, the pattern of fluorescence is characteristic and can be used to identify the species.

fluorescent phenols aqueous chromatography on paper strips may provide useful diagnostic information. For the majority, however, small-scale two-dimensional chromatography using solvents of the type commonly recommended for the isolation of flavonoids would seem to be preferable. These investigations are continuing mainly in collaboration with botanical colleagues in the Melbourne area.

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ASBS COUNCIL ELECTIONS : 1979-80 TERM

In accordance with the Constitution of the Society, nominations are called for all positions on the Council for 1979-80: President, Vice-President, Secretary, Treasurer, 2 Councillors.

Each nominee must be proposed by 2 members and his/her acceptance of nomination must accompany the nomination itself. Nominations must be on the form at the back of this newsletter or on a facsimile of that form.

All nominations must be in the hands of the Secretary, Mrs. Karen Wilson, at the National Herbarium of N.S.W., Royal Botanic Gardens, Sydney NSW 2000, by Friday 20th October, 1978.

Ballot papers will be sent out with the December newsletter if necessary and results of the election will be announced at the Society's 5th General Meeting on 19th January, 1979 in Sydney.

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ASBS OFFICE-BEARERS TO DATE

(C = Councillor, E = Editor of newsletter (non-elected position), P = President, S = Secretary, T = Treasurer, VP = Vice-President)

| | 1973-5 | 1975-6 | 1976-7 | 1977-9 |
|--------------|--------|--------|--------|--------|
| J. Armstrong | - | C | C | - |
| D. Boyland | C,E | - | - | - |
| R. Carolin | - | - | P | P |
| D. Carr | VP | - | - | - |
| A. George | C | C | C | C,E |
| R. Henderson | - | VP,E | E | VP,E |
| J. Jessop | - | - | - | C |
| A. Kanis | T | - | - | - |

Available for purchase for \$100, Ridley's Flora of the Malay Peninsula, 5 volumes, reprint issue.

Contact Dr. A. O. Nichols, CSIRO, Division of Land Use Research, P.O. Box 1666, Canberra City, A.C.T. 2601

NOTE A few copies of the last newsletter (No.15) were returned to the Secretary as the addressing machine failed to print the name and address clearly. Anyone who did not receive that issue should contact, Karen Wilson, Royal Botanic Gardens, Sydney

AUSTRALIAN SYSTEMATIC BOTANY SOCIETY

NOMINATION PAPER

(a separate nomination paper or a copy of same is required for each candidate.)

We, the undersigned members of the Society, desire to nominate

as

President

Vice-President

Secretary

Treasurer

Councillor

(Please cross out words that
do not apply)

on the A.S.B.S. Council for 1979 - 1980.

Member's signature

Institution or affiliation

I hereby consent to my nomination for the position of

Signed _____

Date _____

* NOMINATIONS TO BE WITH THE SECRETARY BY 20TH OCTOBER, 1978.

