AUSTRALASIAN

HERBARIÚM NEWS.

NO, 13.

NOVEMBER 1953.

PUBLISHED HALF-YEARLY BY THE SYSTEMATIC BOTANY COMMITTEE OF SECTION M (BOTANY) AUSTRALIAN AND NEW ZEALAND ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

ANNUAL SUBSCRIPTION: Seven shillings & Sixpense. (U.S.A. ONE DOLLAR)

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November, 1953.

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No. 13.

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AUSTRALASIAN HERBARIUM NEWS.

A journal for the interchange of information among the systematic botanists of Australia and New Zealand.

CONTENTS.

Photographing of Australian Type Specimens at Kew	age 1
F. v. M. and F. Muell. for the Australian Botanist Ferdinand	
von Mueller	1
News and Notes on Current Activities	3
Book Reviews	6

PHOTOGRAPHING OF AUSTRALIAN TYPE SPECIMENS AT KEW.

Australian botanists will doubtless be pleased to hear that thanks to the kind cooperation of the Director of the Kew Botanic Gardens, Sir Edward Salisbury, and the Keeper of the Herbarium, Dr. Turrill, arrangements have been made through the Australian Scientific Liaison Office in London for the microfilming of a number of the type specimens of Australian plants held at Kew.

The specimens will be photographed using a special fixed camera and the work will be done by the trained staff of the Australian film unit in London. At all stages the project will be controlled by the writer who has accepted the responsibility of handling the very valuable material. Preliminary tests for the best exposure times and lighting have already been made. At present the aim is to do a thousand sheets and from the negative a set of large prints will be prepared. The original film and the prints will ultimately be stored at Canberra in the herbarium of the Division of Plant Industry but the latter will be available on loan to responsible institutions. However, should positive copies of the microfilm be required by the State Herbaria arrangements similar to those made in the case of the Robert Brown MSS. can be organised.

Obviously since important specimens as well as types are to be included, the goal of a thousand is a very modest one and will not cover more than a fraction of the sheets of which we would like to have a photographic record. However this number should not be taken as an upper limit; on the contrary, it is hoped that many more can be done and that the total dealt with will depend mostly on how much time can be given to the job not only by me but also by the staff of the film unit. To commence with a large number of sheets of <u>Acaoia</u> will be filmed. Since this is one of our most important genera it seemed not inappropriate to begin with it. Afterwards attention will be given to <u>Eucalyptus</u> and to various Gramineae. If there are any special items which Australian botanists would particularly like to have dealt with or which they consider should be given a high priority it is hoped that they will make their wishes known to the undersigned as soon as possible.

While microfilm records have their limitations the results obtained in the cases of the Lindley Collection and the Robert Brown MSS. show that they can be extremely useful and are far better than nothing. No photograph, however excellent, can show much if the specimen is poor and few give much more than a general idea of the habit. In our particular case the advantages of quantity have had to be measured against those of quality and, as the balance seems to lie with the former microfilms appear to be the most suitable medium.

N. T. BURBIDGE, Kew.

F.v.M. AND F.MUELL. FOR THE AUSTRALIAN BOTANIST FERDINAND VON MUELLER.

I read with great interest the article 1 on the abbreviation of the name of a famous Australian botanist by Miss C. Eardley, Adelaide University. The botanist in question was the Government Botanist of Victoria from 1852 until his death in 1896. In 1857, six years after the State of Victoria was proclaimed, he was successful in having an herbarium built in Victoria in which he worked for the next 39 years. I am in complete accord with the article and I would like to compliment Miss Eardley on the concise and logical manner in which she approached the subject. As she was not conversant with the findings of the Australian Systematic Botany Committee in Hobart, it is a statement from an unbiased viewpoint.

In this herbarium, in which the Baron worked for forty years, there are many things signed F.v.M. in addition to his specimens, and we know that he favoured the citation F.v.M. The fact that Bentham used F.Muell. and that an eminent English botanist thought F.Muell. was more appropriate than F.v.M. and was going to recommend it to the I. B. C. (2) seemed to have influenced some Australian botanists. Had the Melbourne Herbarium been consulted I think sufficiently good reasons could have been put forward to have had F.v.M. retained in preference to any other.

After 1871 Mueller used F.v.M. and favored it before any other, and surely his desire should be respected. The writer objected to the citation of F. Muell. at the I. B. C. in Sweden in 1950 but other subjects thought to be more important took up the time of the Conference and the objection was not discussed.

F.v.M. is preferred because the Baron was in favour of it himself; it prevents any misunderstanding with other F.Muellers; (1) it is the Customary way that we refer to him or his works in this herbarium; the majority of his specimens have F.v.M. in his own handwriting and most of his publications are so designated. F.Muell. is only a recommendation of the International Code of Botanical Nomenclature, 1952, however I agree that important as the citation may seem to me there are many more important taxonomic problems to be solved.

1. Australasian Herbarium News. No. 12.

2. International Botanical Conference, 1950.

A. W. JESSEP, Melbourne.

Miss C. Eardley (A.H.N. No. 12) has re-opened the question as to the form of abbreviation to be adopted for Baron Ferdinand von Mueller which it was hoped had been safely disposed of at the Hobart Conference in 1949.

Some sympathy must be felt for her reluctance to alter in Part IV of the Second Edition of J.M. Black's Flora of South Australia a form which has been adopted in earlier parts. But this is a separate issue and no one would expect her to change horses in midstream, so to speak, in the production of a current work. This should not influence opinion as to desirable procedure in future works.

The use of the form F.Muell. has been adopted by many contemporary botanists in conformity with the principle that all titles (whether Lord, Professor, Dr., Sir or Miss) and "including preliminary particles or letters that do not form part of the name" are irrelevant and should not encumber botanical citation. Sufficient reason has not been raised to justify departure from this principle, which has already been adopted in the International Botanical Recommendations. While admittedly the Recommendations are less sacrosanct than the Rules, for the sake of uniformity few botanists would depart from them without strong reason. It is felt that the plea for the retention of the form F.v.M. is based largely on sentiment, and proper respect for an eminent Australian botanist. But surely Mueller's name and botanical reputation rest upon secure foundations which need no embellishment by titular forms, the use of which in inappropriate context may even, by departure from convention, invite ridicule rather than respect. If local sentiment is to be allowed to influence judgement in all parts of the world, then titles will become commonplace in botanical citation.

The fact that Mueller himself used F.v.M. in the nineteenth century is irrelevant as he had no opportunity to reconsider the matter in the light of current practice. Adoption of this form would create a further embarassment to botanists because it is only accurate from 1871 onwards. What of the species described by Mueller before 1871 prior to conferment of his title?

The fact that other botanists of similar name are also known in botanical literature does not justify departure from principle in the case of the earlier. The question of suitable citation of later botanists bearing the same name as earlier frequently arises and a solution can usually be attained within the limits of current practice.

> J. W. VICKERY, Sydney.

NEWS AND NOTES ON CURRENT ACTIVITIES.

SOUTH AUSTRALIA.

UNIVERSITY OF ADELA IDE.

BOTANY DEPARTMENT.

Since the death of Mr. J.M. Black in December, 1951, the University Herbarium has been occupied with its legacy from him, not only the material one of his herbarium which had to be housed, but also that of his unfinished work, the Second Edition of the Flora of South Australia. Part III, well advanced at the time of his death, has since been seen through the press by Dr. J.B. Cleland and Miss C.M. Eardley and was published in September 1952 (Government Printer, Adelaide). It includes the families Callitrichaceae - Plumbaginaceae, thus ending eleven families short of the First Edition of Part III. There are 14 pages of Additions to Parts I, II and III at the front of the book, and a preface containing a biographical sketch and a portrait of J.M. Black. The volume is illustrated with line drawings to most of the species like the two earlier Parts.

The text of Part III is essentially J.M. Black's with the few final problems dealt with by others. Work is now proceeding on Part IV. Black's notes are fairly complete but here more responsibility will rest on those completing the volume.

The Systematic Botanist is also responsible for teaching students and these have been the two main activities since Black's death, with some herbarium routine

work. Numerous duplicates have been received from the Northern Australia Regional Survey.

Dr. H.B.S. Womersley has returned after studying some 95% of the types (others missing) of southern Australian algae in the important ..European herbaria, of which he visited the great majority, as well as many in U.S.A. The algal herbarium in Adelaide will in future have homeotypes of most species, type fragments of a limited number and photographs of the types of macroscopic species occurring on southern Australian coasts (south-west Western Australia to southern New South Wales and including Tasmania.) He proposes to publish a series of papers on algae giving modern classification, synonyms, references and distribution data.

Mr. R.L. Specht's work on the Arnhem Land collection has almost reached publication stage and eleven sets of duplicates have been distributed.

WAITE INSTITUTE.

With regard to this aspect of University work much time is spent in routine herbarium work and the advisory service, particularly in connection with weeds, pasture plants and large collections of native plants from ecological surveys.

The Aboretum of about 1150 trees is having names checked and a more detailed type of label introduced to include synonyms in current use.

Some cytogen tic work is being done on a small portion of the genus Danthonia. Intra- and inter-specific crosses have been made using a number of forms of three species-complexes.

A start is being made to achieve a really comprehensive reference seed collection for South Australia. So far it contains some hundreds of species, chiefly in the Gramineae.

Mrs. Robertson has resigned from the post of Systematic Botanist at the Waite Institute and Mr. Frank Hilton, an Agriculture Graduate has been appointed in her place. Mrs. Robertson is now assisting with Part IV of the Flora of South Australia.

SOUTH AUSTRALIAN MUSEUM.

The Museum continues its permanent displays of named fresh flowers, common weeds and watercolours of native flowers; the fresh flowers are native Australian plants in cultivation in the garden of Mr. Keith and Miss Alison Ashby at Blackwood, a fine collection started by their father, Mr. Edwin Ashby; the paintings are the work of Miss Ashby.

BOTANIC GARDENS,

The Botanic Gardens is building up its library and, as a small grant was given to them for herbarium equipment, investigations are now being made to see whether a State Herbarium should be established and staffed at the Botanic Gardens.

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Three hundred Australian species were planted in the gardens last year and some of the senior staff returned from a collecting trip to the Northern Territory with seeds, plants and 200 herbarium specimens.

QUEENSLAND.

A new tier of herbarium shelves has been installed and this will relieve the present congestion. The Australian section of the Herbarium is being rearranged to make the most use of available space. The monocots have been arranged according to Hutchinson's system; the order of the dicots will be that of Bentham and Hooker as followed in Bailey's "Queensland Flora" but the family limits are those of Engler and Prantl. Partly owing to this work and partly to the time taken up by weed control work little taxonomic work has been possible. Miss Claire Gillam resigned at the end of July to be married and is now living in Townsville. Mr. Everist and Mr. Johnson spend a good deal of their time in the field on weed control.

Visitors to the Herbarium during the year included Dr. R. Melville (Australian Botanist at Kew,) Dr. R. Hoogland, Messrs. W. Taylor, R. A. Perry and M. Lazarides of the Land Research and Regional Survey Section of C.S.I.R.O., Miss D. Davidson (University of Queensland Pasture Research Fellow at Longreach) Prof. A.J. Eames and Dr. A.J. Hotchkiss (U.S.A., temporarily at University of Sydney) and Dr. Beaumont (Hawaii).

WESTERN AUSTRALIA.

Work on Vol. 1 Part 2 of the Flora of Western Australia is well advanced and it is hoped to have it in the printer's hands some time in 1954. A large number of drawings have yet to be made since it is hoped to fully illustrate each species. The number of species being dealt with is 166. In addition keys to a number of species of the smaller families in preparation for the abridged flora have been completed and are being tested.

Dr. R. Melville of the staff of the Royal Botanic Gardens, Kew, visited Western Australia twice during the past twelve months. During the first visit he was taken as far inland as Southern Cross by Mr. C. A. Gardner to see something of the flora of the interior, and on his second visit he was taken by Mr. R.D. Royce southwards as far as King George's Sound and the Frankland River, to examine the country in which Robert Brown collected in 1801-1802. Large collections were made on each occasion.

In March and April Mr. Gardner visited Alice Springs to investigate the flora of the surrounding districts. During a part of this period he collected with Mr. R.A. Perry of the C.S.I.R.O. Regional Surveys, and a large collection was made. The flora of the Macdonnell Ranges proved to be of considerable interest, especially the upper reaches of the Finke River. A visit was paid to the Victorian National Herbarium where species of Eucalyptus were studied.

During the year large collections were incorporated in the Herbarium which is now particularly representative of the Western Australian flora, especially the northern regions. Mr. Royce has added materially to the algal herbarium.

BOOK REVIEWS.

Australian Plants for the Garden, a Handbook on the Cultivation of Australian Trees, Shrubs, Other Flowering Plants and Ferns.

Thistle Y. Harris; publ. Angus & Robertson, 1953. pp.354. £3. 3. 0

An authoritative book of reference on the cultivation of native species has been sorely needed ever since the Australian flora was discovered. Our flora, with its special adaptations, needs specialised cultural practices in place of traditional methods of gardening and in this book we expect to find a concise presentation of most recent advances in such cultural techniques. Expectations will, unfortunately, not be realised.

The publishers have provided a serviceable cover and an attractive dustoover; the 5 color plates, 45 half tones, numerous diagrams and 17 garden plans are very pleasing but the subject matter is neither well balanced nor well arranged and many of the statements show an inadequate knowledge of the plants concerned.

The early part of the book is devoted to preparation of the garden, plant culture, plant diseases etc. Here the text suffers through being too long and by failing to distinguish the problems of native plant culture from those dealt with in innumerable other gardening books.

"Propagation", an important feature in any book on plant cultivation is not treated as a distinct unit. Instead, propagation from seed occupies the greater part of the chapter on "Garden Craft" and propagation by vegetative methods comprises most of the chapter entitled "Wildings and Cultivated Plants."

In "Plant Maladies and their Control" 28 pages are devoted to animal pests while fungus diseases receive one page and virus diseases eleven lines.

The examples chosen in the chapter on the naming of plants will add to, rather than eliminate, confusion in the reader's mind.

The second and larger section of the book consists of descriptions of native species arranged in chapters headed "Rock Gardens", "Water Gardens", "Hedges and Windbreaks" etc. This arrangement necessitates much repetition and continual cross reference which makes reading very tedious.

Within each section it is impossible to believe the introductory statement (p.xiv) "Numerous plants of great value have been omitted because I have been limited to some extent by nurserymen's present stocks". The authoress seems to have mentioned most of the attractively flowered plants of Australia, whether anything is known about their cultivation or not, and a considerable number are unlikely to be found in any commercial nursery.

Many of the individual species are inaccurately described e.g. <u>Actinotus</u> <u>helianthi</u> "less than one foot high", <u>Grevillea caleyi</u> "2 to 4 feet high", <u>Lomatia silaifolia</u> "less than one foot high", <u>Swainsona galegifolia</u> "about one foot in height", <u>Boronia paryifolia</u> "Creeping"; while the cultural notes are often, to say the least, misleading e.g. <u>Blandfordia</u> spp. and <u>Boronia serrulata</u> for window boxes.

Inaccuracies also extend to the naming of species figured, the appendix of derivations of scientific names and to many of the botanical names throughout the book.

In spite of these defects Miss Harris has assembled a great deal of information which will be of interest to the general reader and will perhaps help to stimulate an appreciation of our native plants as garden subjects.

Although the bibliography is incomplete the book is well indexed.

K.M. and J.G.

The Secretary has received Publication No. 7 of the North Queensland Naturalists' Club, "A Check List of North Queensland Orchids", prepared by Dr. H. Flecker with the assistance of Rev. H.M.R. Rupp. It is a complete list of the orchid flora of that region. The species are arranged under their legitimate names in botanical order and with locality records. Eight species are illustrated.