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AUSTRALASIAN HERBARIUM NEWS

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

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JOHN McCONNELL BLACK, M.B.E., A.L.S.

The passing of John McConnell Black will be deeply regretted by botanists through the length and breadth of Australia and by many more in other parts of the world. His work dealt with the systematic botany of the native and naturalised flora of South Australia and his handbook "The Flora of South Australia" was the current standard work, not only for that State, but for large adjacent tracts of all the five other mainland States.

J.M. Black, as he was affectionately called, lived and worked effectively until the great age of 96. He died quite suddenly at his home in North Adelaide on Sunday, December 2nd, 1951, having spent a long afternoon working at the Second Edition of his "Flora" the day before. He was one of those few who escape the major diseases of old age and his mental and physical powers happily remained equal to the considerable labours of authorship; he retained the capacity, so rare in the aged, to work for long continuous sessions, and though the speed of his work diminished somewhat during the last years, its quality was maintained. The picture seen by visitors to his study at this time was that of a very thin old man of medium stature, now reduced by age, with a fine domed head and very alert eyes, who moved about freely enough even taking down his herbarium boxes from the top shelves of the cabinet. Having politely declined his visitor's offer, he would cautiously climb a small, firmly built set of steps and descend with the required box.

The herbarium of South Australian plants which he himself amassed, by his own efforts and those of some of his family, especially Dr. E.C. Black, and of very active botanical friends, was no mean achievement for a private individual who spent most of his life in a city; the flora of South Australia comprises about 3000 species and most are represented in his herbarium by several specimens giving a range of forms and localities. Also easily accessible to him in Adelaide were the University Herbarium founded by Professor Ralph Tate, the collection built up by Dr. Richard Schomburck, Director of the Botanic Gardens during the last quarter of the 19th Century (these two collections were amalgamated at the University about 1939); the important private collection of orchids belonging to Dr. R.S. Rogers who wrote the section on this family in the First Edition of Black's Flora, which was presented to the University on Roger's death in 1942; and the large private collection belonging to Dr. J.B. Cleland. Black was, of course, in close correspondence with the other Australian herbaria, with the Herbarium of the Royal Botanic Gardens at Kew and with others in various parts of the world, though he seldom visited these distant herbaria beyond Adelaide.

He had a genius for recording the observations of his active mind, whether botanical descriptions and drawings, or the other events of his daily life in a series of diaries. The botanical notes, products of a continuous interest, were added to all the herbarium sheets as he dissected the plants and they are richly supplied with sketches; they also found their way into the margins of the books he used most,

which are annotated, interleaved and illustrated very copiously. His own botanical drawings are beautifully clear and are to be found in his published works, though when, in later years, money was made available from Australian Commonwealth and State funds various artists were employed to assist and the illustrations became more numerous. In the style of his Flora, Black was probably much influenced by that useful French work of the Abbe H. Coste "Flore de la France" which he also consulted continually for information upon the naturalised Mediterranean plants so common in southern Australia.

His valuable working herbarium was offered, with characteristic modesty, as a future bequest to the University of Adelaide some years ago, and since his death it has joined the other important collections which are becoming centralized in the Department of Botany there.

Black was always an amateur botanist and self-trained in his own field, like many other successful systematists. He worked with the simplest equipment and probably never used the helpful binocular dissecting microscopes so valuable for small flowers; his chief tools were two or three low-power magnifying lenses (some of the three-legged type), an ordinary compound monocular microscope, measuring scales and dissecting needles, a pot of paste was always near and the appropriate label was at once pasted securely around the stem of new specimens; nor was his own botanical library very extensive. His only assistants were his family, friends and colleagues and yet he coped with the routine of pressing, poisoning and mounting of all his specimens, writing his books and scientific papers and the wide botanical correspondence which his work involved - he was a prompt and meticulous correspondent to the end of his days and letters in his handwriting were familiar to most Australian systematic botanists.

His first important botanical work was a small book "The Naturalised Flora of South Australia" illustrated and published by the author in 1909 in Adelaide. He contributed a long series of 45 papers on "Additions to the Flora of South Australia" to the Transactions of the Royal Society of South Australia, beginning with vol. 33 : 1909, his first contribution to that Society, and ending with No. 45 in vol. 74 : 1949. There was one later paper, a joint one in 1950. He had been elected a Fellow of the Society in 1907 and later served on the Council and then as President in 1933-4. He was also Chairman of its Field Naturalists' Section. There were in addition other papers, some of them joint publications, reporting on collections of plants made by scientific expeditions to distant parts of South or Central Australia; papers on particular groups of plants and papers on seven aboriginal languages in 1917 and 1920. These last-mentioned showed but one facet of his great interest in and knowledge of languages and phonetics; he was among the first to use the International Phonetic Script to define the sounds of aboriginal speech. He also knew Latin, French, German, Italian, Spanish and Arabic.

His second and more important work was the "Flora of South Australia", published by the State Government as one of a series of

authoritative Handbooks of the Flora and Fauna of South Australia and issued by the then British Science Guild (South Australian Branch). It appeared as four successive volumes 1922-29 from the press of the Government Printer, Adelaide (cf. A.H.N. 2. 10 : 1948). He embarked on this rather formidable work at the age of 66. His book replaced Tate's small "Handbook of the Flora of Extra-tropical South Australia" Adelaide, 1890; it ran to 746 pages and had much fuller descriptions of 2,430 species with more detailed locality and other notes. It was more expensive than Tate's little book had been, but the Government enabled students to procure it at quite a low price. It was a tremendous success with students, naturalists, agriculturists and scientific workers of South Australia and almost as useful in the other Australian States, many of which had not a good recent flora of their own in print.

He continued to publish his "Additions " annually, and in less than twenty years the earlier volumes of the "Flora" were out of print. To the generation of botanists who had enjoyed the advantage of its use this was not to be suffered without protest. The book was a standard University text in a Botanical Department distinguished for its ecological research and in which Mr. Black had been appointed Honorary Lecturer in Systematic Botany in 1927. Representations were therefore made to have a Second Edition published with the same Government help, but the original author could scarcely be expected to undertake it at the age of 84. However, after discussing various alternatives he was actually persuaded to take up the task again. Apparently he felt too vigorous to sit by and watch someone else try to follow in his footsteps. For a dozen years more he worked steadily at the "Flora"; it carried him safely through the personal tragedies of the death of his wife and then that of his daughter. He was subsequently fortunate to have as companion and housekeeper, Miss M. Rayment, who became very sympathetic to his task, drawing his illustrations and helping him read proofs. Professor J.B. Cleland was also a staunch proof-reader.

The now Part 1. appeared in print in May 1943, Part 2. in 1949 and Part 3. was well on the way at the time of the author's death, the manuscript of 22 out of the 33 families in that volume being complete (ending with Plumbaginaceae), and many notes and drawings had been prepared for subsequent families. Also included were some current additions to the earlier volumes of the Second Edition. It is probable that the Editorial Committee will close Part 3. at this point for the sake of speedy publication, and arrangements are being made for others to complete the work; we are indeed fortunate that Mr. Black was able to carry it so far.

The book is a student's flora rather than a taxonomist's, citation of synonyms is therefore quite brief, his attitude to polymorphic species was cautious and he did not publish new species lightly. He was rather critical of the work of O.E. Schulz (see Engler's Pflanzenreich, 1924) in subdividing the Australian genus *Blennodia* (Cruciferae); and though he at first favoured Paul Aellen's inclusion of the Australian *Dysphania* in *Chenopodium*, these curious little plants are restored to

their distinct genus in his Second Edition. Black's preoccupation was always with the plants of South Australia and occasionally Central Australia, and not with monographs of groups though he did not lack the urge to bring order into various pieces of botanical chaos, as witness his "A Revision of the Australian Salicornieae" (Trans. Roy. Soc. S. Austral. 43. 355 : 1919) and "The Flowering and Fruiting of Pectinella antarctica" (l.c. 37. 1 : 1913), a marine flowering plant.

In 1936, the year of the Centenary of South Australia, the Royal Society of S.A. arranged a series of addresses on the history of various branches of science in the State and J.M. Black delivered that entitled "One Hundred Years of Systematic Botany in South Australia".

His interest in the International Rules of Botanical Nomenclature was intelligent and careful but not dominant; he attended the Fifth International Botanical Congress in Cambridge, in 1930 and represented the University of Adelaide, the Royal Society of South Australia and the Melbourne Botanic Gardens on that occasion. It was in this year that he was made an Associate honoris causa of the Linnean Society of London, a select group which also includes another South Australian, the entomologist Mr. H. Womersley. Black's work was acknowledged by several awards from his scientific colleagues in Australia, these included the Sir Joseph Verco Medal (Royal Society of S.A. 1930), the appropriate Ferdinand von Mueller Medal (Australian and New Zealand Association for the Advancement of Science, 1932) and the Australian Natural History Medallion (Field Naturalists' Club of Victoria, 1944), and the Clarke Memorial Medal (Royal Society of N.S.W., 1946). His books were basic to many a local problem of primary industry, his help and advice on plants and weeds were always willingly given when requested by government departments or professional botanists and it was, therefore, appropriate that these services to the State were recognised by the award of an M.B.E. in 1942.

Black was born in Wigtown, Scotland, on April 28th, 1855, his father was George C. Black, Procurator-Fiscal there; he was educated at the Wigtown Grammar School, then at Edinburgh Academy, Taunton College School and finally at the Dresdener Handels-schule, Germany. His father died while he was a boy and there were two sisters and a brother (his sister Helen became Mrs. D'Oyley Carte of Gilbert and Sullivan fame). In view of the intensely scholarly tastes of his later life he would probably have revelled in a university education, however a commercial future was considered best in the circumstances and he spent sometime working in banks. He came to South Australia in 1877, when 22 years old, with some of his family, in the hope of improving his prospects, and farmed at Baroota for five years during which period he became happily married to Alice Denford of Wellington, South Australia and some of his children were born. The farm itself, in a dry district, was an unhappy experience and he had neither the taste nor the physique for such a life - but it was his first experience of our flora. While on the farm he turned his mind towards newspaper work and subsequently joined the literary staff of "The Register" and "The Advertiser" and became a Hansard Reporter for the twenty years until 1902. A modest legacy then enabled

him to retire; he had ability, intellectual tastes and a passion for study, thus in the 49 years of life that remained to him a new man developed - Black, the Botanist - to the infinite enrichment of Australian Science. He was independent and happy at home in his own study with his own herbarium and always worked as a distinguished amateur, like George Bentham before him.

Having made this brief summary of his botanical work it only remains to add some personal impressions. He did not travel much except for rare big tours to the countries of South America, Great Britain and Europe in 1903 and 1930, but his tastes would probably have led him to Europe more often if his home had not been so distant. As for the rich herbaria overseas, he continually corresponded with them and visited some, but scarcely worked in them. His major collecting trips were made in the years before his "Flora" appeared, he went by rail to the South-East, Eyre Peninsula, Ooldea and Marree. J.M. Black was modest and friendly and with his quick, well-stocked mind he was a delightful companion, apart from botanical interest. Visitors to his study were not permitted to feel that they were interrupting his work although the signs of it filled the room. Other botanists were perfectly welcome to consult his herbarium, even if it necessitated mailing large parcels to them, he appreciated their work and when appropriate invited them to collaborate in parts of his Flora.

His daughter, Mrs. Andrew, predeceased him, but there are three sons surviving - Mr. G.M. Black of Gladstone, S.A.; Dr. E.C. Black of Tranmere, S.A. and Mr. A.B. Black of Broken Hill, N.S.W.

For half a century J.M. Black has been a botanical institution in Australia regarded with the greatest respect and affection by his colleagues; though we have now lost him the gift of his work will remain a strength to us far beyond his days.

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DONATION TO THE NATIONAL HERBARIUM OF NEW SOUTH WALES

Dr. F. Rodway of Nowra, New South Wales, recently donated the greater part of his extensive private herbarium to the National Herbarium of New South Wales. He has retained a few groups (including Graminae, Cyperaceae and Compositae) for the time being. His total herbarium is estimated as containing about 15,000 numbers and his intensive collecting in parts of the south coast area make it a valuable addition to the records. Duplicates of many of his collections are at Kew.

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ROBERT BROWN'S MANUSCRIPTS

Microfilm copies of certain items from the above manuscripts have now been received in Australia. The photographing of the papers was arranged by the Australian Scientific Liaison Officer, in London, with the cooperation of the Trustees of the British Museum. At present work on the large set of papers belonging to Brown's Prodrromus is proceeding as fast as possible.

Copies of the films which have arrived are being distributed to the herbaria at Brisbane, Sydney, Melbourne, Adelaide and Perth. One positive and the master negative are being retained at the Division of Plant Industry, C.S.I.R.O., Canberra. Should any library other than those of the above herbaria desire copies of any of the films they can make inquiries through the undersigned.

For the benefit of those who may wish to refer to the films some notes on them have been prepared as follows:

(1) Robert Brown's Diary: This has photographed well and though there are pages where the writing is not clearly legible reading of the script is not as difficult as it was feared it would be. Once some familiarity with Brown's writing has been acquired it should not be too difficult to decipher. A transcription of the diary is being considered by the present writer.

(2) "Australian Floras": These consist of notes in small books which are grouped in boxes.

- (a) Box I. includes "Flora vicinitatis Portus Jackson, N.C. Australia incluso Fluvii Hunteri" (list of species); "Kent's Group, December 12-19th December, 1803" (plants - 18 pages, fauna - 8 pages, notes on mineralogy - 4 pages)
- (b) Box II. is headed "Herbarium Novae Hollandiae, 1801-1804" and contains a very long list of species with localities. It should be of considerable value in ascertaining the type localities for a number of species even though there are no descriptions.
- (c) Box III. continues the lists of species finishing with Gramineae, Cyperaceae and Cryptogams in that order.
- (d) "Notes on Withering's Herbarium - Cryptogams" includes eight pages of "Notes on the Ferns of George Forster's Herbarium in the possession of Mr. Lambert". This section in the microfilm is inserted between boxes II. and III. above.

Some of the pages are difficult to read and as there are scattered references to genera it will be a laborious job checking through them, though in some cases a number of species belonging to the larger genera, e.g., Melaleuca, are listed together.

(3) This film includes three items as follows:

- (a) "Florula vicinitatis Fluvii Hunteri" which is a list of species with very occasional notes on habit.
- (b) "Robert Brown's Filices" - mainly descriptions of ferns from New Zealand and Tahiti.
- (c) "New Holland Plants" This consists of a series of note-books apparently representing Fascicules I - XVI. to which there is an index at the end. Unfortunately the numbers of the fascicules are not all decipherable, especially on the earlier books, so that critical inspection will be necessary before the order can be followed with any ease.

The books contain notes on his Australian specimens - descriptive locality data or mere lists and particularly refer to plants from Tasmania and New South Wales though doubtless a more critical reading will show those from other areas. The dates scattered through the text cover the period 1802-1905 so presumably the notes were made at the time of collecting or soon afterwards. Some of the descriptions are without definite names though there are usually indications as to the most likely affinities. Only close study by various authors familiar with particular genera will disclose the full value of the material filmed.

Fascicule III. includes a few pages of native names for plants which Brown obtained from Bagara, an aboriginal from Broken Bay. In view of our scanty knowledge of the original native names this record may be of special interest to some workers.

The standard of legibility varies greatly - in some fascicules very little can be deciphered, e.g., XII. Another possible source of confusion is that Brown entered notes at both ends of the books and - judging by some of the dates - occasionally missed pages which were later filled. The pages have been photographed so that they can all be read from the same angle, which means that the notebooks have, in some cases, been reversed for the last few pages.

To summarize the impressions gained during a quick check through the films it can be stated that the material is likely to be of considerable value but in many cases the labour of extracting the grain from the chaff will be great. Also, as genera are mentioned in a large number of places the references needed by different specialists will have to be sorted out separately. Just how much important data can be extracted remains to be seen and it will probably be some years before the real value of the films can be truly estimated.

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"PLANTS OF VICTORIA - Vol.2. "  
F. von MUELLER

In recent months efforts have been made to trace the original descriptions of Acacia pycnostachya F. Muell. and Acacia subtilinervis F. Muell. which, according to Bentham in Vol. 2. of the "Flora Australiensis" appeared in the above publication. Since the second volume of the "Flora Australiensis" was issued in 1864 it was soon obvious that the "Plants of Victoria - Vol. 2." referred to by Bentham could not possibly be the Volume 2. edited by A.J. Ewart and issued in 1910.

Ewart refers in his preface to a fragment of an earlier volume 2. published by Mueller and this makes it particularly unfortunate, especially in view of the references already made in the "Flora Australiensis", that his volume was entitled the second of the series.

Inquiries in the various herbaria in Australia failed to locate a copy of the earlier publication and so the matter was referred to the Australian Liaison Officer at the Kew Herbarium and the reply was received stating that there is a copy of the earlier volume there. It is, according to the information received, labelled "Plants of Victoria - Vol. II." on the spine. On the title page it is given as: "The Plants indigenous to the Colony of Victoria - Calyciflorae." It consists of 40 pages of which 35 are devoted to Acacia and the remainder to Cassia and Chorizema. No date of publication is given but as Acacia subtilinervis is mentioned in Mueller's Fragmenta IV. it is not later than 1863 and not earlier than 1862 when the final part of "Plants indigenous to the Colony of Victoria - Vol I." was issued.

Following receipt of this information inquiries were again made through the various members of the Systematic Botany Committee and the libraries of the Australian herbaria. As a result an incomplete copy has been located at the Melbourne Herbarium. This includes pages 25-32 only.

Since this volume is one which should definitely be represented in Australia arrangements are being made by the C.S.I.R.O. to obtain a microfilm negative of it through the Australian Scientific Liaison Office in London. In the meantime the undersigned would be grateful if any reader could provide information concerning the existence of a copy in an Australian Library.

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Canberra, A.C.T.

REPORT OF THE AUSTRALIAN LIAISON OFFICER AT KEW

From June 1949 to October 1951 I was privileged to be abroad as Australian Liaison Officer at the Royal Botanic Gardens, Kew. While the

greater part of my time was naturally spent at Kew, I was able to pay frequent visits to the British Museum of Natural History at South Kensington and the Linnean Society in London. Opportunity also arose to work at a number of continental herbaria.

My duties were divided into two phases, that of answering enquiries forwarded from the various Australian herbaria, and that of furthering my own research work on particular plant groups.

Botanists at Sydney, Canberra, Melbourne, Brisbane and Adelaide availed themselves of the services of liaison officer to send very numerous inquiries about problems of botanical research which were not capable of solution in Australia. These inquiries often necessitated the detailed examination of type-specimens at Kew, the British Museum of Natural History and Paris. Since many herbaria are unwilling to lend type-specimens it was necessary that personal visits be made to consult them. Other inquiries on the finer points of nomenclatural practice necessitated discussion with experienced taxonomists to obtain their viewpoint and to benefit from their knowledge of customary procedure. Still others resulted from the fact that no copies of so many of the older books and periodicals which Australian botanists need to consult, are present in any Australian libraries. For instance, so far as I know, there is not a single complete set of "Linnaea" in this country, although a few volumes are at Melbourne National Herbarium, and a few microfilms of particular articles are in other libraries. This rare series contains the original descriptions of many species by Mueller, Kunze, von Schlechtendal and others. I was able to obtain photostats and microfilms of many rare articles on behalf of Australian taxonomists. I was also able to secure a number of botanical books from London second-hand bookshops when opportunities arose. It is seldom possible to obtain these by ordering from Australia, as the best of them are usually sold before catalogues have even time to reach this country.

Other inquiries to reach me concerned bibliographic data, and opinions on the classification of plant groups, especially of cultivated plants. The ferns of the Arnhem Land Expedition were identified for the Botany Department of the University of Adelaide.

At the request of the C.S.I.R.O., the manuscripts of Robert Brown were inspected at the British Museum, Bloomsbury, and at the British Museum of Natural History, South Kensington. They included the *Prodromus Flora Novae Hollandiae* and his diaries. Arrangements are being made at Australia House to microfilm these documents, as they will be invaluable to Australian botanists. Much fuller descriptions are given of Robert Brown's new species and genera than were published in the three editions of the *Prodromus*. The handwriting on the labels of Lindley's types was also deciphered when the specimens were being photographed at the Australian Scientific Liaison Office in London.

A number of specimens of cultivated plants from Kew Gardens was obtained for the National Herbarium, Sydney, also conifers were collected with a member of the Kew staff at the National Pinetum, Bedgebury, Kent. Native species were collected by myself in Sweden and England.

My own research was concerned primarily with the Pteridophyta, and with the genus Acacia. This involved me in a study of type-specimens at Paris, Uppsala, Stockholm, Florence, Leiden and Brussels, as well as at Edinburgh and the English herbaria. Overseas collections also had to be examined as many of our species are not confined to Australia, and intra-specific variation had to be studied. The facilities that were available, have enabled me to almost complete a revision of the Pteridophytes of south-eastern Australia.

I attended the seventh International Botanical Congress at Stockholm in July, 1950 as a delegate to the nomenclature sessions. No revision of the International Rules of Botanical Nomenclature had occurred for 15 years, and an extensive series of proposals had accumulated for discussion and decision. Debate on these was keen.

The Herbarium buildings at Kew have been built on a plan which seems very close to the ideal for herbarium purposes. Composed of 3 large wings, each wing consists of tiers of galleries around an open central space. The cabinets project inwards from the wall between the windows, ensuring that a maximum of light reaches all parts of the wing. Each bay between the cabinets is furnished with a table, thus providing convenient working space adjacent to the specimens being examined. The ceilings of the galleries are low, so that more floors are accommodated and the need for high ladders to reach the top of the cabinets obviated. As a fire precaution, each wing can be isolated by special steel doors. It is of interest to note that during the fire at the British Museum of Natural History during the recent war, wooden cabinets proved a more valuable protection than did steel. Another objection lodged against steel cabinets is their tendency to rust.

In the English herbaria the type-specimens are mounted on sheets which are kept in red-bordered paper-folders. These can be easily picked out from the other collections by the staff and visitors. At Kew very valuable specimens are covered with cellophane.

The most beautifully-pressed specimens were those at the Uppsala University Herbarium in Sweden where the plants were pressed between handmade Chinese rice-paper sheets.

There are several botanical artists on the Kew staff. Their work is to illustrate new species described by the botanists, as well as to figure plants cultivated in Kew Gardens. Such artists are of great help to botanists in the illustration of a Flora. It is regretted that such assistance is not always available to Australian taxonomists.

There is a valuable collection of old correspondence at Kew. This includes letters from Alan Cunningham, Leichhardt, Hill, Dallachy and von Mueller. These letters were frequently consulted as a source of determination of type specimens. Most of the overseas herbaria keep a collection of the handwriting of the earlier botanists as a basis of comparison for the writing on specimen-labels.

M. TINDALE  
National Herbarium of N.S.W.  
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THE STYLE OF TAXONOMIC PAPERS

Although no fixed style has been adopted for taxonomic papers, most botanical works dealing primarily with taxonomy follow a broad general pattern. It is disconcerting to find at least one well-known Australian journal that continues to publish papers in a form quite different from this pattern and in a form that makes it impossible for references to follow the style recommended in the International Rules of Botanical Nomenclature. One example may be taken from the taxonomically excellent paper by G.L. Davis in Proc. Linn. Soc. N.S.Wales 73: 142-241 (1948). On p. 171 is the entry:

15. BRACHYCOME CAMPYLOCARPA J.M.Black.

Proc. Roy. Soc. S.A., lii (1928), 228.

According to Rec. XXXII Quater of the Rules, this entry should read: Brachycome campylocarpa J.M. Black in Proc. Roy. Soc..... and the only reasonable way to do this is to print the whole entry in one line. (It is most unlikely that the author disregarded the Rules). If it is essential that the name be centred, then it should be repeated on the next line with its reference, and the whole line up with the synonymy, if any. On p.211 of the same paper, the name and reference have been printed in one line, but the line is centred, and the full stop after the author's name instead of "in" is wrong. In the passages quoted are examples of the undesirable practice of using abbreviations for the Australian states that have no general acceptance outside Australia. Unless abbreviations are internationally intelligible they should not be used.

Editors have many troubles and some authors are careless, but it would be well for Australian science generally if papers could be printed in the style which is regarded as most desirable in the particular field treated by the paper. Authors can help towards this by taking care that the papers are well prepared but all the author's efforts can be brought to nought by an overzealous or uncooperative editor.

Since I began writing scientific papers I have paid a lot of attention to these matters, particularly during the ten years I have been an editor. Experiment and inquiry lead me to believe that the style of reference most acceptable to printer and reader is for the abbreviated title of the book or periodical to be followed immediately by the number of the volume, then a colon, then the number of page or pages and lastly the date within brackets, e.g., Davis in Proc. Linn. Soc. N.S.Wales 73: 171 (1948). It is better if the number of the volume can be set in a different style from the other figures, preferably in bold face, but this depends partly on the equipment available to the printer; roman numerals have been frequently used, but many people find difficulty in reading them. The abbreviations "vol." and "p." or "pp." are unnecessary and the use of commas can be avoided. In some works, the date is put immediately after the number of the volume, but when it is at the end of the reference it prevents any confusion when the volume is issued over a period; the date refers only to the page cited.

In the accounts of species, the name of the species, preferably in bold face, should commence at or close to the left-hand margin and be followed by the name of the author and references to literature. Synonyms follow with their references. The clearest way to set these out is to indent them slightly with respect to the correct name, but in some works - possibly in an effort to save space - they follow on the references to the correct name. It is highly desirable that the accepted name be printed in such a style as to stand out from the rest of the passage, and that references be printed in a different style from the names whether accepted as correct or treated as synonyms. An easy style to read is bold face for the accepted name (capitals and small capitals are not so clear), italics for synonyms, and roman for the references. There is no need to mark synonyms as such. An example follows:

Aristida utilis F.M.Bail. in Queensl. Agric. J. 17: 340 (1907). *Compreh. Catal.* 622 (1913).

Streptachne stipoides R.Br. Prodr. 174 (1810); Benth. Fl. Austral. 7: 572 (1878); Hughes in Kew Bull. 1923: 302 (1923).

Stipa streptachne F.Muell. First Census 133 (1882), Sec. Census 223 (1889)...

Some journals appear to demand that any references not placed at the head of the descriptions should be listed at the end of the paper with an indirect reference in the text as is commonly done in papers treating of other branches of science. One drawback to this is that the reader does not know whether to look at the references at the head of the description or at the end of the paper. For references not quoted at the head of the description it is very common practice to give the complete references in the usual abbreviated form on the relevant page, either as footnotes (as in Contrib. U.S. Nat. Herb.) or between brackets in the text (as in Kew Bull.). Footnotes are best avoided as much as possible, but direct references in the text should be at least tolerated.

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#### NEW ZEALAND NOTES

In the latest number of the Bulletin of the Wellington Botanical Society, (No. 25 Oct. 1951) there is an item entitled "Current Work on the Vegetation and Flora of New Zealand" This provides a list of the workers in various botanical fields and of their special interests. While it is not possible to repeat the whole text the following references to particular genera (flowering plants only) may be of value to those who do not see the journal concerned:

- Acaena Mr. J.W. Dawson, Victoria Univ. College, Wellington
- Agropyron Mr. H.E. Connor, D.S.I.R., Botany Div., Christchurch
- Celmisia Dr. H.H. Allan, 4 Eagle St., Karori, Wellington
- Cotula, Ourisia Mr. G. Simpson, 165 Crawford St., Dunedin
- Craspedia Mr. A.P. Druce, Pinehaven Rd., Heretaunga P.O., Wellington
- Dracophyllum Dr. W.R.B. Oliver, 26 Ventnor St., Seatoun, Wellington
- Hebe, Veronica, Parahebe, Pygmaea Dr. O.H. Frankel, now C.S.I.R.O.  
Canberra, Aust.; Mr. T.W. Rawson, D.S.I.R., Wellington
- Libertia, Luzula Mr. A.J. Veale, Canterbury Univ. College, Christchurch
- Nertera, Nothopanax Dr. F.R. Fosberg, Catholic University of America
- Nothofagus Mr. A.L. Poole, N.Z. Forest Service, Wellington
- Pimelea Dr. E.J. Godley, C/- Crop Research Div., Christchurch
- Plantago Mr. O.T. Boscawen, Auckland Univ. College, (variations in  
populations of P. coronopus)
- Ranunculus Mr. R. Fisher, C/- Canterbury Univ. College, Christchurch
- Scleranthus Miss A. Lush, Dominion Museum, Wellington
- Senecio Mr. N.L. Elder, McHardy St., Havelock North
- Wahlenbergia Miss J.A. Hay, Victoria University College, Wellington;  
Mr. E.D. Hatch, Tane Rd. Laingholm, Auckland.

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RECENT PUBLICATIONS

- CHAPMAN, V.J. 1951. Notes on New Zealand Algae. Trans. & Proc. Roy.Soc. N.Zeal. 79(1). 84-86.
- CHAPMAN, V.J. 1951. A Note upon a New Zealand species of Pylaiella.  
& AMBLER, M.P. Trans. & Proc. Roy.Soc. N.Zeal. 79(1). 114-118.
- CLIFFORD, H.T. 1951. The Genera of Victorian Mosses and New Records  
& WILLIS, J.H. of species for the State. Part 1. Vict. Nat. 68(8).  
135-138. Part 2. 1.c. 68(9). 151-158.
- DUGAN, S.L. 1951. A Catalogue of the Australian Tertiary Flora.  
Proc. Roy. Soc. Vict. 63. 41-56.



- ELLIOTT, C.G. 1951. Some Notes on Arthrotaxis. Proc. Linn.Soc. N.S.W. 76(1-2). 36-40.
- JAEGAR, E.C. 1950. A Source Book of Biological Names and Terms. C.C. Thomas, Springfield, Illinois, U.S.A. 2nd. ed. (C.S.I.R.O. copy obtained through Blackwell Sci.Publ. Co., Oxford, Eng. - ED.)
- MAY, V. 1951. Studies on Australian Marine Algae VI. New Geographical Records of Certain Species. Proc.Linn. Soc. N.S.W. 76(3-4). 83-87.
- MAY, V. 1951. The Marine Algae of Brampton Is., Great Barrier Reef off Mackay, Queensland. Proc.Linn.Soc. N.S.W. 76(3-4). 88-104.
- MORRISON, F.R., A.R. Penfold & Sir John Simonsen 1951. The Essential Oils of Zieria smithii Andrews and its various forms, Part 2. Jour.& Proc. Roy. Soc. N .S.W. 84(4). 196-201.
- NORDENSKIÖLD, H. 1951. Cytotaxonomical studies in the genus Luzula. 1. Somatic chromosomes and chromosome numbers. Heredity 37(3). 325-355.
- PHILIPSON, W.R. 1951. Contributions to our knowledge of Old World Araliaceae. 1. Revision of genus MacKinlaya F. Muell. (with Anomopanax Harms.) 2. New Species and New records from New Guinea and the Solomon Is. Bull. Brit. Mus. (Nat.Hist.) Botany 1(1).
- POOLE, A.L. 1951. Flora and vegetation of the Caswell and Gorge Sounds District. Trans & Proc.Roy.Soc.N.Zeal. 79(1). 62-83.
- PRYOR, L.D. 1951. Controlled Pollination of Eucalyptus. Proc. Linn.Soc.N.S.W. 76(3-4). 135-139.
- PRYOR, L.D. 1951. A genetic analysis of some Eucalyptus species. Proc.Linn.Soc.N.S.W. 76(3-4). 140-148.
- RUPP, H.M.R. 1951. A Review of the Australian Species of Sarcochilus (Orchidaceae). Proc.Linn.Soc.N.S.W. 76(3-4). 49-56.
- SHAW, D.C. 1951. A Septoria Disease of Euphorbia peplus L. Proc. Linn. Soc. N.S.W. 76(1-2) 7-25.
- SINGER, R. 1949. The Agaricales (Mushrooms) in Modern Taxonomy. Lilloa 22. 5-832.
- SMITH, G.G. 1951. New Records of distribution of Pilostylis hamiltoni C.A.Gardn. W.Aust. Nat. 3(2) 21-23.

- WAKEFIELD, N.A. 1951. Some revision in Helichrysum. Vict.Nat. 68(3). 49-51.
- WAKEFIELD, N.A. 1951. New Species of Pomaderris. Vict.Nat. 68(8) 140-143.
- WATERHOUSE, W.L. 1951. Australian Rust Studies VIII. Puccinia graminis lolii, an undescribed rust of Lolium spp. and other grasses in Australia. Proc.Linn.Soc. N.S.W. 76(3-4). 57-64.
- WILLIS, J.H. 1950. Victorian Toadstools and Mushrooms : a key and descriptive notes to 120 different gilled fungi (family Agaricaceae) with remarks on several families of the higher Fungi. publ. Vict. Nat., Melbourne; pp.72, 16 pl. (5/-).
- WILLIS, J.H. 1951. Botany of the Russell Grimwade Expedition to South and Western Australia, August-September 1947. Mem.Nat.Mus. Vict. 17. 33-64.
- WILLIS, J.H. 1951. A new species of Victorian Moss. Vict.Nat. 68(5). 83-84.
- WILLIS, J.H. 1951. The Anatomy and Morphology of the Operculum in the genus Eucalyptus. 1. The occurrence of Petals in Euc. gummifera (Gaertn.) Hochr. Proc.Linn.Soc. N.S.W. 76(1-2). 31-35.
- WOMERSLEY, J.S. 1951. The Papua and New Guinea Herbarium. Flora Malesiana Bull. 8.

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NOTE: Our item "News and Notes on Current Activities" has been omitted from this issue but will appear in later numbers. ED.