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Issued by the

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EDITED for the Committee by the Honorary Secretary

The Committee accepts no responsibility for the accuracy of statements made or opinions expressed in contributed articles or letters.

AUSTRALASIAN HERBARIUM NEWS

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

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OUR FIRST ISSUE.

The publication of this news bulletin is a landmark towards which we have long been vaguely struggling; it arises from the need for some means of overcoming the isolation felt especially by the smaller herbaria of our new fraternity. Many of the technical letters which pass between any two taxonomists refer to matters of general interest, and it would be of the greatest advantage to have a common channel designed to receive such material and convey it to all. This bulletin will make possible the publication of open letters to all botanical taxonomists, and under its stimulus we hope contributors will present their discussions in such a way as to make them of more general value. The opportunity will be given to us to plan and carry out some mutually beneficial pieces of work by concerted action, and thus conserve our resources by pooling them as far as is possible.

A forum is needed for the Australian and New Zealand systematic botanists, and a medium for lively inter-communication. However, it is not proposed to restrict the circulation of Australasian Herbarium News to this geographical range, since we hope to arouse the interest of colleagues in other countries in our efforts, which may also prove of service to them. We shall be happy if our overseas readers will from time to time make use of our journal to convey opinions and information to Australasian workers as a body. It is not intended for the publication of more formal taxonomic works or the longer technical papers.

This first number is an introduction to the main herbaria of the region, which represents a considerable proportion of the southern hemisphere. We have tried to give an accurate picture, but the presentation is brief, and the full characters of the institutions and workers concerned will only gradually emerge in future numbers which will give ample opportunity for original expression. The normal type of issue contemplated will begin with the second number six months hence, and will contain short articles and notes of taxonomic interest, reviews of books and current systematic publications (especially those affecting Australia and New Zealand), information of value to colleagues, discussions of work in progress at the herbaria, news of overseas herbaria, personal notes and correspondence. This should help greatly to keep us well-informed about recent developments. Other plans in mind are:

- (1) To publish lists of rare and useful botanical works indicating the libraries possessing them.
- (2) Gradually to publish lists of type-specimens in our herbaria.
- (3) To publicize opinions on matters of nomenclature, so that Australian and New Zealand systematists can achieve greater uniformity of usage.

There is no existing journal which could serve our purpose as described above. Indeed, the only one in Australia devoted purely to plant taxonomy and related work is the "Contributions from the New South Wales National Herbarium", which began in 1939, and after the first three issues was unfortunately suspended from publication both during the war and up to the time of writing. Normally, our professional papers are published in the journals

of one or other of the local scientific societies, which are relatively unspecialized in character, or sometimes abroad, and doubtless this will continue to be the case for some time.

We look forward to receiving contributions from systematists at home or abroad. The aims outlined cannot be fulfilled without the enthusiastic co-operation of workers in Australia and New Zealand, who are requested to review their daily activities for any matters of interest which could provide material for a suitable communication to Australasian Herbarium News.

HISTORY OF THE INAUGURATION OF THE SYSTEMATIC BOTANY COMMITTEE.

The 25th meeting of the Australian & New Zealand Association for the Advancement of Science was held in Adelaide in late August, 1946. It was considered an excellent opportunity to bring together for a conference the systematic botanists of Australia and New Zealand, especially those working in the larger herbaria.

The plan was not formulated until the rest of the programme of Section M (Botany) had been arranged, but it was still considered worthwhile to hold a Herbarium Workers' Session, with opportunities for further meetings during the week, as alternatives to some of the other meetings of Section M. This rather restricted the attendance to those interested primarily in Systematic Botany (not all from herbaria), and the number present at any one time was about fifteen persons. It is probable that other members of Section M would have liked to attend; they will be given a better opportunity to share in meetings at future Science Congresses.

The response from the systematists before the meetings was quite encouraging and the final representation of the main Australian herbaria was very good. Unfortunately, there was no official representative for the distant New Zealand herbaria, but a short informal account was received from Miss Lucy Moore (Botany Division, Plant Research Bureau, Wellington), enumerating the more important collections there.

Actually present at the meetings was a member of the staff from each of the Australian State Herbaria, except Western Australia. Melbourne was well-represented by two senior officers. In the case of Western Australia, Mr. Gardner, the Government Botanist, had prepared an account of that Herbarium with subjects suggested for discussion, in conformity with the rest; this was presented by Miss N.T. Burbidge who is quite familiar with the Perth Herbarium and had recently been able to visit Mr. Gardner to discuss the whole question personally with him.

As these were alternative meetings, the President of Section M could not attend for the whole time, and we were fortunate in having as chairman Dr. R.T. Patton of the Botany School, University of Melbourne, who was elected at the first session.

At the first meeting on the morning of Thursday, 22nd August, reports were presented describing the general activities of the chief herbarium in each state, with a short account of the respective institutions. These reports were substantially the same as those now published in this first issue of Australasian Herbarium News. A small sub-committee was elected to sift the material gathered at the first meeting, arrange the points for discussion, adding its recommendations, and draw up an agenda for a second meeting on Monday, 26th August. The sub-committee consisted of Mr. Jossep, Mr. Morris, Mr. Blake and Miss Eardley (convonor); the agenda prepared for discussion was practically as follows:

- (1) Co-operation.
- (2) Temporary liaison officers at Melbourne.
- (3) Liaison officer at Kew.
- (4) A Commonwealth or Australian Herbarium.
- (5) Acceptance of revisions and nomenclature.
- (6) Recruiting Herbarium staff.
- (7) Botanical arrangement in herbaria.
- (8) Type-specimens.
- (9) Coining of vernacular names.
- (10) Immediately desirable tasks.
- (11) Recognition of the botanical services of Mr. J.M. Black.

Most of the persons present contributed something to the discussion of several points, and it is unnecessary here to name those introducing the various subjects, some of which arose more than once from independent sources. The consideration of all these matters proved too lengthy a task for the second morning meeting, and was only concluded at the third meeting held the same evening.

As some of the conclusions reached upon these points are of great interest, they are set out below under the appropriate numbers.

- (1) Co-operation: Most important is that relating to the formation of a permanent committee, constituted under Section M; this was the subject of our first resolution to the General Council Meeting of the Australian and New Zealand Association for the Advancement of Science, which approved it. Quoted in full it reads:- "That a standing committee, to be known as the Systematic Botany Committee, be appointed, consisting of one member from each State, one from the Federal Capital Territory, and one from New Zealand, with power to add. The following names are submitted for approval:- Queensland, Mr. S.T. Blake; N.S.W., Miss J. Vickery; Victoria, Mr. A.W. Jessep; South Australia, Miss C.M. Eardley; W. Australia, Mr. C.A. Gardner; Tasmania, Dr. H.D. Gordon; A.C.T., Mr. W. Hartley; New Zealand, Dr. H.H. Allan. Miss Eardley to act as Secretary, pro tem."

Since then, Dr. R.T. Patton, the chairman of the Herbarium Workers' Sessions, has been added by the Committee as their official Chairman. It was agreed to hold further meetings whenever the Association for the

Advancement of Science meets.

It was resolved that one of the earliest activities of the Committee should be the publication of a half-yearly news-sheet, the first issue of which would contain an account of these meetings; the following numbers to be a medium of technical communication as outlined elsewhere in this issue.

It was also recommended that any author describing a new species should forward co-types, or specimens named by him, to the main herbarium of the State in which the species was collected.

Improved exchange of literature and reprints is also needed.

- (2) Liaison Officers at Melbourne: Under this heading was discussed the desirability of an easy system of interchange of officers between the herbaria represented on the Committee, and as the majority of them are State institutions, our third resolution to the General Council Meeting ran:- "That the State Governments be asked to make the necessary arrangements for a free interchange of officers between the various herbaria of Australia and New Zealand, in order to facilitate research in Systematic Botany."

However, the General Council considered this an internal matter for the herbaria to arrange. It was considered advantageous that officers visiting the Melbourne National Herbarium should perform general liaison duties while there.

- (3) Liaison Officer at Kew: This was the subject of our second resolution to the General Council, which approved it. The appointment of Australian liaison officers to Kew lapsed during the war, after Mr. C.A. Gardner (W.A.) and Mr. C.T. White (Qld.) had visited Kew on this basis. Sir A.W. Hill (then Director of Kew) once expressed the opinion to Mr. White that the Australian botanists were not making enough use of the services of their liaison officer at Kew; Mr. White explained that it was probably due to a reluctance to encroach on the time of an officer who was known to be fully occupied by his own work. South Africa has long had a liaison officer at Kew.

The resolution was:- "That the Commonwealth Government be asked to approach the British Government with a view to the resumption of the appointment of liaison officers to the Herbarium at the Royal Botanic Gardens, Kew, and that the Commonwealth Government be asked to give consideration to liaison officers being appointed to other overseas herbaria, from time to time."

- (4) A Commonwealth or Australian Herbarium: Mr. Hartley (Canberra) put before the meeting some views on the potential functions of a Commonwealth Herbarium, and his article is published in this issue. Other speakers expressed the opinion that it would be very difficult to build up a new herbarium which would supersede in importance the large Melbourne and

Sydney collections; at present, a great deal of critical checking and matching of specimens for the other herbaria is done in Melbourne, while Brisbane is the Australian centre for work on the flora of New Guinea.

However, Mr. Hartley showed an appreciation of all these facts, and sketched a plan for a Commonwealth Herbarium whose functions would not overlap those of the State herbaria, but would be complementary to them in a useful way. The new Systematic Botany Committee could suitably undertake some of these functions, and the whole question of a Commonwealth Herbarium should be referred to this body for report.

- (5) Acceptance of Revisions and Nomenclature: Without proposing to sacrifice individual judgement entirely in order to achieve uniformity of nomenclature, it was considered that much might be done by setting up a small, expert committee to make recommendations. Changes of names obtained from overseas together with relevant data, should be published in the news-sheet.
- (6) Recruiting herbarium staff: In Australia, the herbaria are usually faced with the necessity of training their own staffs; university graduates in systematic botany are rare, possibly because of the lack of professional openings in the past.
- (7) Botanical arrangement in Herbaria: The botanical arrangement of the families was considered merely a matter of convenience in the herbarium itself, but assumes importance in the preparation of a flora or similar work.
- (8) Type Specimens: Several of the points discussed under this head were raised by Mr. Gardner, who is very active in procuring material from Western Australian type-localities; he emphasized the fact that opportunities for this are decreasing with settlement. Such topotypes become very valuable when the type is destroyed, as has occurred during the war in the case of Diels' and Pritzel's types.

The matter was referred to the Committee, but suggestions were as follows:

- (a) That lists of types be made by each state herbarium and published.
 - (b) That type-specimens in any one State be deposited at the official herbarium.
 - (c) That all collections receive fire-proof housing, especially types.
 - (d) That specimens be deliberately collected from type-localities.
 - (e) That type-numbers should be deposited in Kew and as many local herbaria as possible, Kew having first preference.
- (9) Coining of vernacular names: A motion of protest was passed against deliberate coining (especially by botanists.) It was suggested alternatively to popularize generic names.

(10) Immediately desirable tasks were considered to be:

- (a) The cataloguing of non-periodical literature in the herbarium (and other) libraries;
- (b) the listing of types in each herbarium;
- (c) the preparation of floras, especially for some States.

Information on (a) and (b) could be published piecemeal in the news-sheet as it becomes available.

It was decided to submit a short account of these meetings and their more important results for publication in some appropriate scientific journals, viz: the Australian Journal of Science and Chronica Botanica. Probably only a short statement will be possible in the Report of the 25th Meeting of the A.N.Z.A.A.S. (Adelaide, 1946). The same account was sent to the Director of the Royal Botanic Gardens, Kew.

During the meetings, Professor E. Ashby (President, Section M) remarked that some of our plans might be suitable to receive financial support from the Dominions Office of the British Empire, which was encouraging the study of Empire vegetation and flora. Arrangements would have to be made by an official representative of the A.N.Z.A.A.S. through the Council for Scientific and Industrial Research. He thought that the preparation of floras should be financed locally.

The Committee feels that the Sessions achieved something concrete towards the closer welding of the participating herbaria. There is now a stronger conviction that much of the work of the several institutions will gain by being considered as a task common to them all, or else as something to be planned and shared between them in the best possible way. The Committee intends to keep these aims in view and pursue them to the utmost of its ability.

Mr. P.F. Morris kindly undertook the work of Minute Secretary, and the names of those recorded as present are appended. The next meeting of systematic botanists will be held at the Perth meeting of the A.N.Z.A.A.S. in August, as described elsewhere.

Attendance:

Professor Eric Ashby (President of Section M) then of Sydney, N.S.W.
Dr. R.T. Patton (Chairman), Melbourne, Vic.
Mr. E.T. Bailey, W.A.
" F.M. Bennett, Canberra, A.C.T.
" J.M. Black, Adelaide, S.A.
" S.T. Blake, Brisbane, Q.
Miss N.T. Burbidge, then of Adelaide, S.A.
Professor J.B. Cleland, Adelaide, S.A.
Miss Winifred M. Curtis, Hobart, Tas.

Miss C.M. Hardley (Convenor), Adelaide, S.A.
Dr. H.D. Gordon, Hobart, Tas.
Mr. H. Greaves, Adelaide, S.A.
Miss C. Hargreaves, Adelaide, S.A.
Dr. W.A. Hargreaves, Adelaide, S.A.
Miss Thistle Y. Harris, Sydney, N.S.W.
Mr. William Hartley, Canberra, A.C.T.
" A.W. Jessep, Melbourne, Vic.
Mrs. E. Jones (Miss Valerie May), Sydney, N.S.W.
Mr. P.F. Morris, Melbourne, Vic.
" A.T. Pugsley, Adelaide, S.A.
" H.B.S. Womersley, Adelaide, S.A.
" John S. Womersley, Forest Service, Papua-New Guinea.
Miss Joyce W. Vickery, Sydney, N.S.W.

Apologies.

Mr. R.H. Anderson, Chief Botanist & Curator, National Herbarium, Sydney, N.S.W.
Mr. C.A. Gardner, Government Botanist, Perth, W.A.
Mr. H.M. Hale, Director, South Australian Museum, Adelaide, S.A.
Mrs. D. Lee (Miss Alma Melvalne), Sydney, N.S.W.
Mr. C.T. White, Government Botanist, Brisbane, Q.

REPORTS OF THE HERBARIA

THE NATIONAL HERBARIUM OF VICTORIA

We cannot claim to have the oldest herbarium in the Southern Hemisphere but we can justly claim that we have the greatest number of exsiccate specimens and the greatest number of type specimens of the Australian flora in that part of the world. That is very fortunate because our herbarium is the most central one for the Commonwealth of Australia.

Hobson's Bay Settlement was declared the State of Victoria in 1851 and given the name Victoria after the Queen. It is interesting to note that the very next year Governor Latrobe appointed Dr. Ferdinand Mueller, afterwards Baron von Mueller, Government Botanist, a post which he held until his death in 1896. Mueller immediately set to work travelling and collecting, not only in Victoria but also in other parts of the Commonwealth. By 1857 he had obtained some 47,000 pressed specimens representing 15,000 species but they were very inadequately housed in a small room in the Botanic Gardens. The value of this work was soon realised and in 1857 an Herbarium was built and served its purpose very well for more than half a century. However the herbarium and library outgrew the building and to celebrate the centenary of Melbourne that well known Victorian benefactor, the late Sir MacPherson Robertson, financed the very fine building which was ready for occupation at the end of 1934. This building houses the herbarium, library and carpological museum and is situated in the extreme south-west portion of the Botanic Gardens where it is readily accessible

to visitors. The building is as fireproof as economically possible. The cabinets are of steel; the floor of a special preparation and the building of brick and stone.

The Herbarium and the Botanic Gardens are indissolubly united - the one being unworkable without the other and this is never questioned in the principal botanical establishments of the world such as Kew, Paris, Berlin and New York; these are the four largest herbaria in the world and they work very closely with their botanic gardens, giving a practical side to the training of the staff. The garden is essential to keep up to date with horticultural varieties e.g. Amelanchier persica var. Pollardi, and Malus gorgeous; these names should be recorded for reference and it is hoped to train horticulturalists not to place on the market any perennial, hardwood plant without a description being given to it and published in the authorized way.

The routine work of fumigating, drying and mounting is probably the same as other institutions. We fumigate every second year with HON gas and it is carried out by professionals. The Herbarium is divided into six main sections.

1. The Workroom: This room is fitted with the usual optical and dissecting aids and books for ready reference such as Rehder, Bean, Bailey's Encyclopaedia, Kew Indexes, Floras of Australian Plants and so on. It also contains an herbarium of popular plants such as those we may get from professional plantsmen. These exsiccate specimens are very useful for quick determination and verification. If not identified here, then it is taken either to 2 or 3 below.

2. The Australian Room: This contains the pressed specimens of Australian plants and here our herbarium is outstanding for its types. In this room, work on Australian plants is carried out and aids for the work are kept at hand although not to the same extent as the workroom.

3. The ex-Australian Section: In this room plants other than Australian are housed and dealt with. These exsiccate specimens are catalogued into two books. Book 1 has the genus alphabetically and indicates its position in Book 2. Book 2 is catalogued systematically into natural orders, genus etc. according to Bentham and Hooker, and it gives the cabinet number and position in which the specimens are housed. We can quickly find any specimen by this method.

4. Library: Here again we are fortunate that our pioneers were long-sighted and purchased wisely. Several volumes that we have are now practically unobtainable and for research work they are invaluable. With so many valuable books destroyed during the war these old and rare volumes are even more valuable now. It is impossible to give a correct estimate of the number of volumes in the library as unfortunately we have not had a librarian until last July and for over four years during the war the library room was occupied by the Royal Australian Air Force. It is estimated that there are about 13,000 volumes, without bulletins etc. but it is not the actual total that is so important as the number of standard works that it contains.

5. Museum and Carpological Collection: This consists of plant portions which cannot conveniently be housed amongst the exsiccate specimens because of their bulkiness or other reasons, e.g. large fruits, resin compounds and plant models. There are also displays of commercial plant products illustrating the various phases through which the material goes from the crude material until the finished product.

6. Botanic Gardens: Here we are able to compare many of our specimens with the living material and observe the actual variations that take place in plants. The Herbarium undertakes the responsibility for the correct labelling of the plants in the gardens.

The Herbarium is under the administration of the Lands Department of the State Government and is financed by a Government grant which varies according to the estimates and is revised by the Treasury Department.

Staff: Government Botanist who is responsible for the administration of the Herbarium.

The Senior Botanist who is responsible for the general routine work of the Herbarium.

A Botanist who specialises in nomenclature and carries out research and investigations into such matters as decided upon.

Two Botanical Assistants - one of whom has had extensive practical experience in nursery work with horticultural varieties and who devotes a certain amount of time in checking up plants in the garden for identification and verification. Lucien Reychler says "All botanical scientists should do at least two years in a greenhouse to understand the psychology of plants - to learn, to love and understand them." Mr. Maiden of New South Wales had a similar opinion and I think much may be said in favor of it. The other assistant has studied forestry and is being trained in general herbarium work whilst completing his degree in Science with Botany as the major subject.

A Library Assistant who has newly commenced on that work, and as the books are just being replaced in the library the whole is being catalogued; when completed the periodicals, bulletins etc. will be dealt with and Pitt's revised catalogue will have an up-to-date list of our periodicals as at the end of June 1946; we had so many periodicals in various languages that in the past, with no librarian and a very meagre staff, some of them were never properly catalogued and were not shown in previous issues.

Volunteer Workers - Chiefly collectors who use our resources for their activity.

Original Work: We are continually making research into and investigation about the various exsiccate specimens that we have and particularly those that have not yet been incorporated. The types are being investigated and segregated and specially catalogued so that we will ultimately be able to say definitely and very quickly whether or not we have the type or co-type and so on. Revision of genera is constantly being investigated and the nomenclature kept up to date as far as possible. Field work is increasing and the staff is doing a great deal in vacations, but arrangements have been made for official, specific field work and sooner or later we hope to re-survey the whole of the flora in Victoria. Field work surveys have been made in the Mount Buffalo

area; in the Alps as far as Mt. Kosciuszko in New South Wales, where our party encountered Mr. Anderson's party from Sydney; an area in Tasmania where certain disputes had arisen about plants which Mr. Morris investigated. The Eucalyptus collection is being mounted and systematically arranged according to W.F. Blakely's classification.

The advisory services are a very important function and they have increased to such an extent that our other activities have been greatly curtailed during the past few years. In 1945 some 7,000 plants were determined in addition to those of our own herbarium collections. The specimens were chiefly from the following sources:- Education Department 1700, Department of Agriculture 500, Vermin & Noxious Weeds Branch 200, other States and Federal Departments 300, newspapers 500, nurserymen etc. 500, University workers, farmers and general public 3,300. This work not only entails identification, but a written report, particularly if plants are suspected of poisoning stock or causing skin trouble to humans, or on their medicinal or cultural properties.

The Herbarium is rich in both interstate and international specimens. It contains specimens prepared by such eminent botanists as Ehrhart, Thunberg, Giseke and the Pre-Linnean botanist Petiver who died in 1718. It contains many types and specimens named by Banks and Solander in 1770 and Robert Brown during his Australian visit in 1802-5. It houses Mueller's specimens used in the compilation of Bentham's "Flora Australiensis" and Mueller's own "Fragmenta Phytographiae Australiae"; the West Australian collections of Drummond, Oldfield, Preiss and Max Koch; the New South Wales collections of Moore, Betche, and Maiden; the South Australian plants from Tate and Black; and from Queensland those of Bailey and White. The exact number of specimens housed in the herbarium is not known as some of the private herbaria obtained by donation or purchase have not yet been fully incorporated into our herbarium proper, but it is estimated that we have between 1,250,000 and 1,500,000 specimens. According to statistics published by the Brooklyn Botanic Gardens, Melbourne has the seventh largest collection of exsiccate specimens in the world. Kew and Berlin are equal first with 4,000,000, Geneva and Leningrad equal third and fourth with 3,000,000. Calcutta has 2,000,000, New York has 1,750,000 and Melbourne next with 1,500,000. It is not only the number but the type specimens that make Melbourne such a representative and invaluable reference herbarium.

Our contact with allied institutions is rather extensive. There is no need to inform the other Australian herbarium workers how much we appreciate the assistance that they willingly render to us, and we reciprocate to the utmost of our ability. With our disruptions during the war period, the loan and information activity embarrassed us on more than one occasion and those who did not know our predicament might have put the delay down to our lack of interest. During the war period 1941-6, approximately half of the herbarium building was taken over by the R.A.A.F. and American Forces. The library room was utilized in this way and the library publications were temporarily housed in between the herbarium cabinets and even in the passages. This room has been returned and the library is being replaced and thoroughly checked and catalogued. The museum and the carpological collection are still stored away

and it is not expected that this will be restored this year. As much of the material will have deteriorated and some of it rendered unfit to use, a good deal of work will be necessary to get it into a satisfactory condition. Now that our staff has been slightly increased and our space gradually returned to us, it is expected that we will be able to give quicker service to our co-workers.

Outside Australia our contacts are gradually being renewed since the war, particularly with European countries. With New Zealand we are in very close contact. The list of institutions is much too long to enumerate, and is sufficient to enable us to get any botanical information that is available to any herbarium throughout the world. Kew Gardens with its various publications still stands supreme, but we find the Arnold Arboretum always ready to assist, particularly with the horticultural varieties.

Books and specimens are loaned to kindred institutions, but I am not sure that we are doing the correct thing by allowing type specimens to leave the herbarium; these types are irreplaceable and should be preserved for posterity. In future it will be our general policy not to forward the type, but like other policies there will be certain exceptions to Herbaria but not to private systematists. Of course they are available at our own herbarium.

Functions of an Herbarium: The main functions are those enumerated above. In addition there are several activities that we would like to carry out at our herbarium but staff and finance prevent us from doing so. These include:

1. Publication of a Journal on Herbarium matters particularly with notes on revision of genera and with results of field work.
2. Make available photostat reproductions and micro-films of literature which is not available or easy to obtain by other herbaria.
3. Register of Type Specimens and make the catalogue available to other herbaria.
4. Publication of a new flora for Victoria and keeping it up to date by issuing supplements.
5. By lectures and other means interest the public in botanical subjects.
6. Photographer to be associated with the Herbarium to carry out such photographer's work as:-
 - (a) Microphotographs of sections of plants
 - (b) Color photography of horticultural varieties for exchange purposes
 - (c) Micro-films and other work.
7. Frequent interstate working visits of the staff to other herbaria.

Nomenclature: Finally, there seems a tendency for systematists to revise genera, and for herbaria to accept the revisions uncritically; I am of the opinion that all changes in nomenclature should be carefully investigated before they are accepted.

A.W. JESSEP

Government Botanist and Director of Botanic Gardens.

THE NATIONAL HERBARIUM OF NEW SOUTH WALES.

The activities of the National Herbarium may be considered under two broad headings.

- (1) It functions as the Botanical Branch of the Department of Agriculture.
- (2) It is the State National Herbarium responsible for the care of the State Collection of plant specimens, and for work on the flora generally.

Its work as the Botanical Branch of the Department of Agriculture involves the Herbarium Staff in most of its routine work. We are called upon to answer enquiries from the rural community on such subjects as fodder plants, weeds and poison plants either real or potential with such details as the name, habit and methods of control or eradication. Considerable advice is also issued to farmers concerning tree-planting on farms, not so much from the forestry point of view, but from that of the man who requires shelter belts or woodlots for protection of animals or crop plants, and possible utilization for timber on the farm.

In addition to the farming community, we supply considerable information concerning plants to schools, to horticulturalists concerning garden plants, to industries concerning economic plants, to Shire and Municipal Councils chiefly on noxious weeds, to other branches of the Department of Agriculture such as the Veterinary Division on poison plants, to other Government Departments, such as Local Government, Police, and Lands Departments, to University staff and students, and on occasion to interstate and overseas enquirers. In a normal year, about 6,000 specimens are submitted for examination and report.

There has always been a fairly close relationship between the Herbarium and the Botanic Gardens. The two were entirely united under the directorship of J.H. Maiden up to about 1924, but after that period they functioned as two quite separate branches of the Department of Agriculture. Their geographical co-incidence, meant, however that there still remained a high degree of contact in practical and scientific matters in spite of administrative separation. In 1945 the two branches were again united under Mr. R.H. Anderson, who is now Chief Botanist and Curator of the Botanic Gardens and National Herbarium. This arrangement facilitates co-operation between the outdoor and indoor

activities. So far as the Herbarium staff is concerned we assist with the naming of plants whose labels have been lost or of plants whose names were never known. Plants sent in without flowers, but in viable condition are often grown until they are in a condition suitable for determination.

In its activities as the State National Herbarium, we may mention the two aspects of maintenance and research.

The subject of maintenance and protection of specimens from deterioration needs no comment here. The specimens are not mounted and mostly not poisoned, but naphthalene is maintained in the boxes in which they are contained.

It is estimated that the Herbarium contains over half a million specimens, housed for the most part in some 20,000 boxes. This includes a fairly large exotic collection built up by exchange, but this has not been an extensive activity for many years. Collections are sent out as they are requested. The arrangement of the specimens is by families in the Engler and Prantl System.

Including Mr. Anderson, whose activities are now divided between the Herbarium and the Botanic Gardens, and whose time is heavily occupied with administrative duties, there are six members of the purely botanical staff. In addition a Seed Collector has recently been appointed to serve the needs of both the Herbarium and the Gardens.

We are fortunate in the presence at frequent intervals of Mr. H.M.R. Rupp as Honorary Curator, whose work on the family Orchidaceae is well known. Mrs. Valerie Jones, we also claim as a member of our staff in an honorary capacity, and rely upon her for all information required on the Algae.

The time of the Herbarium staff is divided between the answering of routine enquiries and research upon flora from the systematic angle, and the accumulation of knowledge on the biology of native and introduced plants. The major projects are dictated partly by individual choice and partly by an appreciation of the more urgent needs of the Herbarium. At present there is no lack of genera urgently requiring comprehensive revision, as indicated by the contents of the collections. In addition, innumerable small problems are raised in the course of routine work, which must be settled as far as possible.

The more important projects in hand at present or recently completed are revisions of the genera Swainsona, Acacia, Zieria, Danthonia and Amphipogon, and of the groups Pteridophyta, Algae and the family Orchidaceae. The genus Eucalyptus has received considerable attention, with the object, in the first instance, of providing a readily usable key for the identification of the species and later of their revision.

The staff is acutely aware of the need for a revised Flora of the State, and efforts are being made towards the attainment of this objective.

At present we have no one able to undertake satisfactorily work on such groups as the Mosses, Lichens and Liverworts. The fungi are little better

known, but there has been some co-operation between the Biological Branch and ourselves on this group.

At present the Herbarium undertakes little or no extension work. Until early in the war, a Museum was maintained open to the public, which attracted the attention of school teachers and school children, and some of the more serious-minded members of the population. Its re-organisation and modernising were long overdue, and barely commenced when the officer put in charge of this work was called up for military duties. The museum has remained closed ever since.

The Herbarium has a fairly extensive library, but difficulty in obtaining the older literature so necessary for taxonomic work is frequently experienced. At present the library consists of some 10,000 volumes, and numerous reprints and pamphlets. Recently we have had a trained librarian attached to the staff, and this will result in a greatly improved library service to the botanists, with better subject-indices available for reference.

Publications: During the war it was not possible to continue the publication of the "Contributions from the National Herbarium of New South Wales" owing to the attitude of the Government that all non-essential printing must stop, and the classification of the Contributions under that category. We anticipate that publication will be renewed shortly.

Collections of special interest which are incorporated in the National Herbarium are enumerated below.

A number of duplicate specimens collected by Banks and Solander, obtained from the British Museum.

Duplicates of many of Robert Brown's specimens, obtained from the British Museum.

A few specimens collected by Leichhardt, but generally these do not specify the place of collection.

A considerable number of Gunn's and Archer's collections from Tasmania. Specimens from the Herbarium of W.V. Fitzgerald from Western Australia.

Many specimens of Algae identified and collected by A.V. Lucas. (?A.H. S. LUCAS)

A fairly extensive collection of Pacific Island plants, and of Philippine Island plants largely built up by exchange with Merrill.

Basedow's collections on the Government North West Expedition.

Some specimens collected by Max Koch.

Some specimens collected by Helms.

A few specimens collected by Cunningham.

Extensive collections made by earlier members of the staff of the National Herbarium viz. those of E. Betche, J.H. Maiden, E. Cheel, W.F. Blakely and J.L. Boorman, of which collections of the genera Eucalyptus and Acacia are especially worthy of mention.

The more important Pteridophyte Collections.

Exotic collections are mentioned in particular detail here, as, owing to

the wide distribution of many ferns, they are of especial interest to Australian work on this group.

Australian

W.W. Watts (including North Queensland Type specimens)
 R.F. Waller (North Queensland)
 W.W. Froggatt (North Queensland)
 Tenison-Woods
 W. Woolls

Overseas.

Philippines:

One of the more important duplicate sets from the Herbarium of the Philippine Bureau of Science is located here. This includes a large number of Merrill's and Ramos' collections. A large number of specimens collected in the Philippine Islands by E.B. Copeland, A.D.E. Elmer and O.A. Wenzel are also located here.

C.T. White - Papua - duplicates.

Copland-King - the bulk of his specimens are here. They were collected in Papua, New Guinea, Solomon Islands and Norfolk Island.

R.B. Comin's Colln. - Melanesia.

W. Gunn - New Hebrides - the principal colln. is here.

G. Bonati - New Caledonia (duplicates).

Vieillard - New Caledonia (duplicates).

M. Mousset - Java (duplicates).

C.B. Robinson - Amboina (duplicates).

R. Schlechter - New Caledonia and Africa (duplicates but very important).

J. Kaulfuss - (Nürnbergger Botanischer Tauschverein - duplicates, small collection).

H. Rudatis - Africa (duplicates including those of some types).

C.H. Demetrio - duplicates - a large collection of rare ferns (Mexico, Java, West Indies, etc.).

M. Kuhn - duplicates - Plantae Portoricenses.

Prince Roland Bonapart - miscellaneous duplicates.

C.G. Pringle - Mexico - a large collection of duplicates.

Maire - Yunnan, China - duplicates.

Otto Buchtien - Bolivia, South Chile - a valuable collection of duplicates.

H.E. Parks - Fiji (per Bernice P. Bishop Museum) - duplicates.

W.G. Woolnough & E.J. Goddard Expedition to Fiji - the bulk of the collection.

Captain Rason's expedition to the South Sea Islands - the bulk of the collection.

E. Bêche - Upolu - the bulk of the collection.

Orchids.

N.B. Merrill's & Elmer's Collins. and R. Schlechter's (most important).

R.H. Anderson - Chief Botanist & Curator

J.W. Vickory - Botanist

QUEENSLAND HERBARIUM, BRISBANE.

The Queensland Herbarium is part of the Department of Agriculture and one of its principal functions is to do advisory work for the Department as regards:-

1. Routine determination of specimens sent to the Department or direct to the Herbarium;
2. Plants poisonous to stock and their eradication;
3. Grasses and their properties, sometimes even to field management.
4. Ornamental and shade trees for farm and general street, park and wayside planting.
5. Any other queries relating to economic botany.

Members of the staff also do routine identification of specimens for, and supply botanical information to -

6. Council for Scientific and Industrial Research (particularly in connection with its survey of the Queensland Flora for plants of possible pharmacological value).
7. The Sub-Department of Forestry.
8. Schools.
9. Nurserymen and others.

Besides this, a fair amount of field work, usually totalling several weeks each year, is done by one or more members of the staff. This field work may be directly concerned with specific problems, such as a search for possible poison plants following the death of stock, or an investigation into possible rubber-producing or drug-producing plants. Other field work may be primarily botanical exploration. In any case, every opportunity is taken during these field trips to collect herbarium specimens and usually several sets for distribution are prepared as a matter of routine. Such collecting is also frequently done in unofficial time.

Such specimens are determined, labelled and put away in the Herbarium or distributed as opportunity offers.

Monographic or revisional work goes on, chiefly on Queensland groups of plants, though in particular cases all Australian and sometimes New Guinea and New Zealand species are studied also. At present also, a considerable amount of work is being done on the Flora of New Guinea and the Solomon Islands. This work is partly the results of field work done by members of the staff, and partly the determination of portions of the collections of the Archbold Expeditions, being carried out at the request of the Arnold Arboretum. Some of the results of this work are published from time to time in various periodicals.

A revised and enlarged edition of "Australian Rain-forest Trees" by W.D. Francis, is being prepared by the author, and another member of the staff is assisting in preparing for the Department of Agriculture a small book on poison weeds.

There are also of course, the usual consultations and loans and exchanges of material with other herbaria, both in Australia and overseas.

Members of the staff have at different times been seconded to the Commonwealth Government and the Imperial Government for special work.

The Government Botanist also lectures in Forest Botany at the University of Queensland.

The Herbarium is housed in a wooden building, which is definitely not fire-proof and in any case is far too small. No reliable estimate has been made as to the size of the collections. The collections are at present arranged in two divisions - the Australian section, which contains the specimens of species recorded as indigenous or naturalised, and the Exotic Section containing the remainder. The Exotic Section contains one of the best collections of New Guinea plants in the world, and it is hoped that these may be segregated in a special section.

The staff consists of Government Botanist, Botanist, three Assistant Botanists, and a typist. Visiting botanists work here at intervals.

C.T. White - Government Botanist

S.T. Blake - Botanist

The monographic work mentioned includes much published on the Cyperaceae and Gramineae.

(Ed.)

AUSTRALIAN CAPITAL TERRITORY

THE HERBARIUM OF THE DIVISION OF PLANT INDUSTRY, C.S.I.R.

HISTORY:

The Herbarium of the Division of Plant Industry, located in the laboratories at Canberra, was established in 1929, soon after the formation of the Division. It was formed primarily to serve as a basis for the taxonomic work associated with the research activities of C.S.I.R., but it was also hoped that it might serve as a nucleus for an eventual Australian National Herbarium. The need for such an institution had been very strongly urged by the late Sir Arthur Hill, following his visit to Australia in 1927/8.

COLLECTIONS:

At the present time, there are approximately 12,200 mounted, labelled and classified specimens in the Herbarium, excluding the special collections referred

to below. The collections are arranged according to the Engler classification and are from many sources, including particularly:

(1) Duplicates presented by the Botany School of Sydney University. These include many specimens from coastal and sub-coastal New South Wales and duplicates of woody specimens collected by the late R.H. Cambage.

(2) A set of Tasmanian specimens selected by the late Leonard Rodway.

(3) Specimens of exotic species brought in and grown by the Plant Introduction Section of the Division.

(4) Specimens, principally of pasture plants from inland New South Wales and southern Queensland, collected by officers of the Agrostology Section and the Division of Economic Entomology.

In addition to these, there are many smaller collections, including specimens collected by F.W. Hely and others in the Northern Territory, South Australian duplicates presented by R.L. Crocker, abundant material of certain grass genera presented by S.T. Blake, and collections obtained by exchange with overseas institutions.

The special collections referred to above are kept separate from the general Herbarium. They are:

(1) The Lucas collection of Marine Algae, presented to the Commonwealth Government in accordance with the will of the late A.H.S. Lucas. This includes the type specimens of several species.

(2) A collection of Papuan plants made by the late C.E. Carr, comprising about 5,800 numbers. Most of these are undetermined, but the collection includes isotypes of many new species.

A reference seed collection is also maintained, now comprising about 2,500 samples, principally of introduced grasses and legumes.

LIBRARY:

A separate library is not maintained for the Herbarium, but the Divisional Library receives the more important periodicals dealing with systematic botany, and a fair range of modern Floras. There is little older literature.

STAFF:

Until very recently, the Herbarium has been without permanent full-time scientific staff, the systematic work having been undertaken by members of the Divisional staff whose main duties were in other fields. This situation has now been rectified by the recent appointment of a systematic botanist who will be responsible for the maintenance of the Herbarium.

ACTIVITIES:

The lack of permanent staff has restricted the work of the Herbarium almost

entirely to routine matters. These have included determinations of plants collected by agrostologists and other officers of the Division in the course of vegetation and pasture surveys, checking of the nomenclature of exotic plants grown by the plant introduction officers, and miscellaneous determinations for officers of other C.S.I.R. Divisions and outside bodies.

Other activities undertaken have included the preparation of a list of standard vernacular names for the more important Australian grasses, pasture plants and weeds.

RELATIONS WITH OTHER INSTITUTIONS:

Some contact is maintained with other Australian herbaria, and it has frequently been necessary to consult the larger collections maintained in Sydney and Melbourne.

Duplicates are exchanged with several overseas institutions, with the principal objective of securing a more adequate representation of the plant families (especially Gramineae and Leguminosae) which are of particular interest for the work of the Division.

Recently a joint committee has been formed, representative of the several institutions in Canberra interested in systematic botany, with the objective of co-ordinating their activities and bringing together their collections.

William Hartley
Senior Plant Introduction Officer.

THE WESTERN AUSTRALIAN STATE HERBARIUM.

The Herbarium is attached to the Department of Agriculture as a part of the Botanical Branch, and is constituted under a Board consisting of the Public Service Commissioner, the Under-Secretary for Agriculture and the Conservator of Forests. It was established when the herbaria of the Department of Agriculture and the Forests Department were brought together. It is at present housed in the Observatory in rooms which are regarded as being temporary premises.

The Herbarium contains (or contained, on the 31st July, 1946) 29,121 sheets of specimens, all mounted and arranged under the system adopted at the Herbarium of the Royal Botanic Gardens Kew; all are poisoned for preservation from insects, and a general index, together with family and generic indices are prepared from time to time. All critical examinations are recorded on the sheets, together with drawings of necessary details, and in some cases, the original descriptions are attached to the sheets. By this method, which is gradually being extended, much information, apart from the actual specimen, is included on the sheet.

The collections are, in general, made up as follows:-

The large collections of C.A. Gardner, numbering approximately 10,000 sheets, from the greater part of Western Australia.

The forestry collections of F.M.C. Schoch, numbering about 1,500, which previously formed the nucleus of the original Forestry Herbarium.

The tropical collections of W.V. Fitzgerald, numbering some 1,500 sheets - these being from the Kimberley district.

The principal collections of Max Koch (or what has been preserved, since many were found to have deteriorated to an extent that rendered them practically useless).

The collections of Mr. C.R.P. Andrews, from South Western Australia.

In 1917, a large collection of duplicates of the specimens of Drummond, Maxwell, Mueller, and a number of early explorers was received from the Melbourne National Herbarium. The number is considerable.

In 1941, the late Dr. W.E. Blackall bequeathed to the State Herbarium his extensive collection, comprising several thousand specimens including a large number of Fitzgerald's and Andrews' specimens, as well as the type specimens of these.

In 1937, while working in Berlin, C.A. Gardner received, by way of exchange, a large number of type-fragments of the specimens of Diels and Pritzel collected in Western Australia. Because of the loss of the Berlin Herbarium, and the fact that duplicates were not in Kew or at the British Museum, these specimens are now of immense value.

In 1943, the University of Western Australia presented to the State Herbarium its large collection from North Western Australia, of which the most valuable part was gathered by Miss N.T. Burbidge from the De Grey district, numbering 1,050 sheets.

In 1945, the late Colonel B.T. Goadby bequeathed his entire orchid collection which is at present being sorted out and prepared for incorporation in the Herbarium.

All of the above are incorporated in the Herbarium, or in process of incorporation. The Blackall Herbarium is the single exception. This is mounted on sheets smaller than the standard size, and is temporarily housed in the Perth Museum.

LIBRARY:

This is far from being adequate, and apart from early and contemporary literature, there are few books of reference. Among the more valuable works are Kunth's Enumeratio Plantarum, Bentham and Hooker's Genera Plantarum, De Candolle's Prodromus and his monographs, and the principal Dominion Floras, as well as early works on the Australian Flora.

STAFF:

The Staff of the Botanical Branch consists of the Government Botanist, Assistant Government Botanist, a Herbarium Assistant and a Seed-testing Assistant. The Herbarium work is carried out by the Government Botanist and Herbarium Assistant, the Assistant Government Botanist being occupied with routine matters in economic botany, seed-testing, and weed-control, - matters not intimately connected with the herbarium.

SERVICES:

Apart from those services mentioned above, the services which the State Herbarium performs include advisory work to the Government Departments and the public generally, the determination of plants and plant specimens, the preparation of botanical papers, oecological work and reports, and the preparation of the projected Flora of Western Australia. There are no volunteer workers at the present time.

ADDITIONS TO THE HERBARIUM:

Field work offers opportunities which are taken to add to the collections in the Herbarium. When the Herbarium was established, in 1928, the two herbaria which were brought together comprised less than 8,000 sheets of specimens, none of which were mounted, and none of them poisoned. The following are additions for the last three years:-

1944	..	..	..	2,247	sheets
1945	..	..	..	3,085	"
1946	..	..	..	1,803	" up to end of July.

Prior to 1938, the specimens were unmounted, and no totals were kept. During the years 1937, 1938, and the early part of 1939, over 8,000 specimens were examined and compared with type or authentic specimens in the herbaria of Kew, the British Museum, Oxford, Edinburgh and Berlin. The greater number of these were poisoned and mounted at Kew, and in 1940, a commencement was made with the mounting of the entire Herbarium, which is now practically completed.

In January 1944, the number mounted and incorporated was 21,986; during 1944 2,247 sheets were added, bringing the total to 24,233. In 1945 3,085 sheets were added (most of them from collections made in Kimberley) bringing the total to 27,318. In the first seven months of 1946, 1,803 sheets have been incorporated, bringing the total to 29,121. It is estimated that the herbarium is representative of 98 per cent of the flora of Western Australia.

The herbarium in its present form deals exclusively with the indigenous and naturalised flora of Western Australia. Extra-territorial specimens have not been included.

ORIGINAL WORK:

The Herbarium contains the types of over 200 species which have been described in various papers. It is estimated that another 200 await description. A systematic Census of the plants of Western Australia was published in 1931, but this is incomplete. The first volume of the Flora of Western Australia, comprising 677 pages of typescript has been completed in manuscript form, and includes about forty plates. An illustrated text book of the grasses of Western Australia is nearing completion, some 200 pages of typescript and 94 plates have been prepared.

O.A. Gardner
Government Botanist

SOUTH AUSTRALIA.THE HERBARIUM OF THE UNIVERSITY OF ADELAIDE

This includes the more important main collection of perhaps 30,000 sheets housed in the Botany Department of the University, and, in addition, the recent, smaller, auxiliary working collection at the Waite Agricultural Research Institute of the University of Adelaide. The Botany Department collections are quite general in character, while those at the Waite Institute have a bias towards grasses, legumes of agricultural value, weeds, trees grown in the Waite Arboretum, and the native flora of South Australia. The Systematic Botanist is in charge of both collections and spends half-time at each. The Waite Institute, by arrangement with the Department of Agriculture, conducts certain State Advisory Services in Agriculture, one of them being for Systematic Botany. The buildings containing the collections are reasonably fireproof, but not the fittings and boxes.

Important private herbaria of South Australian flora are those of Mr. J.M. Black and of Professor J.B. Cleland. In recent years the South Australian Museum has also begun to accumulate collections, in which the Field Naturalists' Section of the Royal Society of South Australia is particularly interested; it contains some extensive privately amassed material, including E.H. Ising's plants. It is felt that Adelaide is too small to multiply its herbaria unnecessarily, and that efforts should rather be made to strengthen the staff and unite the collections whenever possible.

The University Herbarium (including the Waite Institute) is staffed by one whole-time graduate in science, one practically whole-time laboratory attendant, and one half-time student cadet in botany; the junior officers are relatively impermanent. Clerical services for correspondence are also available, and assistance in certain enquiries may be obtained from the various specialists on the staffs of the Waite Institute and Department of Agriculture. The lecturer in Cryptogamic Botany (Mr. H.B.S. Womersley) has lately made the collection of marine algae his particular concern, and an honorary worker (Mr. E.S. Booth) is energetically building up the Conifer and carpological collections.

For forty 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; for many years past, state work has been delegated, first to the Botany Department, and then to the Waite Institute practically from its inception some twenty years ago. The activities of Mr. J.M. Black, and his two books "The Flora of South Australia" and "The Naturalised Flora of South Australia" are much appreciated by the botanists of his own and other states.

The present Systematic Botanist is responsible to the Professor of Botany for the work in the Botany Department; and at the Waite Institute, to the

Professor of Agronomy and the Director, who report to the Minister of Agriculture annually.

The Adelaide Botanic Gardens has a Museum of Economic Botany, but no herbarium since 1940 when the fine collection formed there by Richard Schomburgk was presented by the Board of Governors to the Botanical Department of the University, where it forms a large part of the exotic section. However, the Director of the Botanic Gardens often assists with routine enquiries concerning horticultural plants.

Some of the other important Australian collections included in the University Herbarium are those of Dr. R.S. Rogers (Orchids), Menzel-Cleland (Australian), Albert Morris (Australian), Max Koch (Australian), Fritzel (West Australian); there are also some Australian exploring expedition collections (Elder duplicates, Horn, Calvert, Tietkens', Basedow's, Madigan's (Simpson Desert 1939) and other expeditions). A very valuable part of the collection is the original nucleus formed and worked upon by Professor Ralph Tate in the final decades of last century, and later examined by Black, i.e. most of the South and Central Australian material.

For convenience, the larger collection at the Botany Department has recently been divided into three (approximately equal) geographical sections (1) chiefly South Australian (2) the rest of Australia (3) extra-Australian plants; it is arranged according to the system of Engler and Gilg (essentially Engler and Prantl). The South Australian and Waite Institute collections are mounted, card-indexed and well arranged, but the remainder is less satisfactory. Current additions are poisoned with Kew Mixture ($HgCl_2$ and phenol), and naphthalene and para-dichlorobenzene are regularly put in the boxes against insect attack. There are a few type specimens which it is being attempted to segregate.

The Herbarium has not its own library, but is fairly well-served by the libraries of the University, Botany Department, Waite Institute, Royal Society and Public Library, most of which are situated close together. There are many standard floras, and at present funds for buying books are not the limiting factor; new subscriptions to periodicals are somewhat less available, the weakest point is probably the lack of an strong herbarium tradition in the past building of the libraries mentioned, and the relative inexperience of the present Systematic Botanist in knowledge of the historic literature and taxonomic periodicals.

The rate of addition to the botanical collections is unfortunately slow, owing to the inability of one permanent systematic officer to undertake large numbers of identifications or purposeful collecting, as well as other work. Nor can additions by exchange be embarked upon to any large degree, as this involves the careful naming of outgoing collections. The amount of correspondence and contact with colleagues at home and abroad must also be curtailed for the same reason. Loans are made on request to those engaged on revisions of groups.

The advisory services supplied are to various State and Commonwealth

Departments (chiefly of Agriculture and Forestry), to scientific workers and students; to the general public; to business houses; and to the Education Department; it is often impossible to meet all demands from schools or from ecologists wishing to have large collections identified. The enquiries (less than 1,000 plants per annum) range over native plants, poison plants, economic and horticultural plants, weeds and formerly their control. Because of the connection with the Waite Arboretum, comprehensive reports on trees and tree-planting are sometimes required, and cannot, from the nature of the request, be passed on to the Department of Woods and Forests. The Herbarium staff also takes part in the work of the Arboretum, with its visitors.

Since this Herbarium is in the Botany Department, it is rather naturally the policy of the Professor to have the students in Systematic Botany taught by the Systematic Botanist; this is undoubtedly a desirable arrangement, except that it interferes greatly with the actual herbarium work when the staff is small, for about three months of the year in this case. The teaching of students also involves organising ecological vacation excursions with them to the Koonamore Vegetation Reserve.

There is little opportunity for original work which must be fitted into rather broken time. Recent studies which may be mentioned are (1) the catalogue of the large collection of plants collected in the Simpson Desert on Madigan's 1939 Expedition (C.M. Hardley). (2) Studies on marine algae (H.B.S. Womersley). (3) A review of the South Australian species of Eucalyptus (N.T. Burbidge, Waite Institute). (4) J.M. Black, Honorary Lecturer in Systematic Botany, published the second edition of Pt. 1 of his "Flora of South Australia" in 1943, and is now revising Pt. 11. (1), (2) and (3) are published in Trans. Roy. Soc. S.A.

C.M. Hardley
Systematic Botanist.

TASMANIA.

The principal Tasmanian herbarium is now housed in the Botany Department of the University of Tasmania, Hobart. The greater part of it constitutes the Herbarium of the Tasmanian Museum, which was formerly housed at the Museum, and more recently at the Botanical Gardens. The Botany Department of the University has been building up its own collection. It was thought desirable for all concerned that these collections should be combined under the care of the staff of the Botany Department, and this move has just been completed. Distinctive sheets will be used, so that the collections can be separated at any time. There is no change of ownership, the larger collection remaining the property of the Trustees of the Tasmanian Museum and Art Gallery.

Although containing a substantial collection of specimens from the Australian States, and a few from elsewhere, the herbarium is primarily Tasmanian.

It contains specimens collected by some of the early Tasmanian botanists, e.g. Milligan, Archer and Gunn, and many brought together more recently by the Field Naturalist's Club and others. In the last few years further material has been added as a result of the Biological Survey of Tasmania. A distinctive item is a recent collection of Eucalypts by Brett, illustrating ranges of variation in critical material. Most important of all is Rodway's Herbarium, which is essential for reference in conjunction with his Flora, and which contains not only the seed plants and Pteridophyta, but also substantial collections of Mosses, Liverworts, Algae and Fungi.

Since Rodway's Tasmanian Flora is now out of print, having given good service for forty years, a new Flora is needed, and the staff of the Botany Department of the University is working on this project. The pooling of herbaria was intended primarily to facilitate this work, and the main immediate objective of the herbarium is a complete collection (with adequate range of variation) of Tasmanian and introduced vascular plants, correctly named and classified for reference in writing the Flora.

An appeal must be made here for co-operation from other botanists, not only in Tasmania, but elsewhere. Botanists from other states sometimes visit Tasmania to collect specimens for their own herbaria, and publish their findings in various journals. It is hoped that such workers will always make a point of collecting duplicate specimens for this herbarium, and of forwarding copies of anything published about them, so that their work may receive recognition in the new Flora. Similarly an appeal is made for copies of all revisions and similar publications on genera or other groups which occur in Tasmania.

In return, the staff of the Botany Department in Hobart will co-operate in any way possible, though it may be as well to point out that the herbarium has no separate staff of its own.

H.D. Gordon
Senior Lecturer in charge of Botany.

PAPUA - NEW GUINEA

BOTANICAL SECTION - FORESTRY DEPARTMENT.

Although much collecting had been done in the Territories of New Guinea and Papua prior to the war, no Herbarium facilities of a permanent nature had been established. From time to time the pre-war Departments of Agriculture in the separate Territories had conducted botanical work but mainly economic in character.

The pressing demand for timber during the gradual expulsion of the Japanese forces from New Guinea saw the establishment of the Australian Army Forestry

Company with its headquarters at Lae. Working in close co-operation with Dr. H.E. Dadswell of the C.S.I.R. Division of Forest Products and Mr. C.T. White of the Queensland Botanic Museum and Herbarium, a botanical and Wood Technology section was established under the control of Mr. Lindsay Smith of Brisbane.

With the manpower resources available for field work, collecting proceeded rapidly and at present the collections include some 2,400 timber samples and a corresponding number of botanical specimens. The latter were at the time of collecting carefully dried in steam ovens, but through no fault of the Army personnel concerned, it has now deteriorated to the point where most is of little value as a herbarium collection. Fortunately duplicate sheets are housed in Brisbane.

With the appointment of a permanent botanist to the Administration staff and the whole-hearted co-operation of the Administrator, it is hoped that, as permanent buildings can be erected, the New Guinea-Papua Herbarium will become an established fact.

J.S. Womersley
Forest Botanist.
Forestry Department,
Lae,
NEW GUINEA.

THE HERBARIA OF NEW ZEALAND.

This information was provided by Dr. H.H. Allan and Miss Lucy Moore, both of the Botany Division, Plant Research Bureau, Wellington, N.Z. describing the disposition of the main herbaria of New Zealand, and may be summarised as follows:-

There are a few large herbaria and several smaller ones, the majority being situated in the four chief cities of the Dominion. All four of these cities have university herbaria; three of them have also museum herbaria; two have, in addition, herbaria attached to divisions of the Department of Scientific and Industrial Research; and Wellington, the capital, has a fourth in the Herbarium of the State Forest Service.

For convenience they are tabulated below.

WELLINGTON (4 herbaria): Dominion Museum; Victoria University College; Botany Division, D.S.I.R.; State Forest Service.

AUCKLAND (3 herbaria): Museum; University College; Plant Diseases Division, D.S.I.R.

CHRISTCHURCH (2 herbaria): Canterbury Museum; Canterbury University College.

DUNEDIN (1 herbarium): University of Otago.

AGRICULTURAL COLLEGES (2 herbaria): Massey and Canterbury.

PRIVATE COLLECTIONS (3): Mr. Sainsbury (Musci), Mrs. Hodgson, (Hepaticae), and Mr. Lindauer (Algae).

These fifteen important collections are widely scattered and few have special staff officers attached to them. Apparently the museum herbaria at Auckland and Wellington, including respectively the collections of Cheeseman and Kirk, are the major ones.

Dr. Allan's more detailed account can now be added. (Ed.)

1. Herbarium of the Auckland War Memorial Museum, Auckland. Director of the Museum, Dr. G. Archey. Officer in Charge of Herbarium, Miss B. Molesworth. The herbarium includes the "Cheeseman Herbarium," on which Cheeseman's "Manual of New Zealand Flora" was based.
2. Herbarium of the Auckland University College, Auckland. Head of Botany Department, Professor V.J. Chapman.
3. Herbarium of the Plant Diseases Division, Plant Research Bureau, Auckland. Specializes in Fungi.
4. Herbarium of Massey Agricultural College, Palmerston North. Head of Botany Department, Dr. J.S. Yeates.
5. Herbarium of the Dominion Museum, Wellington. Director of the Museum, Dr. W.R.B. Oliver. This herbarium includes the herbarium of the late Thomas Kirk, author of the "Students' Flora of New Zealand," and other important collections.
6. Herbarium of Victoria University College, Wellington. Head of Botany Department, Dr. I.V. Nowman.
7. Herbarium of the State Forest Service, Wellington. Director of Service, Mr. A.R. Entrican.
8. Herbarium of the Botany Division, Plant Research Bureau, Wellington. Director of the Division, Dr. H.H. Allan. Contains the types of several recent workers, strong in Marine Algae of New Zealand.
9. Herbarium of the Canterbury Museum, Christchurch. Director of the Museum, Dr. R.A. Falla. This includes the herbarium of the late Mr. H. Carse, Auckland, and material collected by the early workers, J.F. and J.B. Armstrong.

10. Herbarium of the Canterbury University College, Christchurch. Head of Botany Department, Mr. C.F. Foweraker. R.M. Laing's collection of Algae.
11. Herbarium of the Canterbury Agricultural College, Lincoln. Director of the College, Mr. E. Hudson.
12. Herbarium of the University of Otago, Dunedin. Head of the Botany Department, Mr. G.T. Baylis. Includes the herbarium of J. Buchanan.
13. Herbarium of Mr. G.O.K. Sainsbury, Wairoa, Hawkes' Bay. Musci of New Zealand.
14. Herbarium of Mrs. E.A. Hodgson, Wairoa, Hawkes' Bay. Hepaticae of New Zealand.
15. Herbarium of Mr. V.W. Lindauer, Pihama, via Hawera (Taranaki). Algae of New Zealand.

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THE FUNCTIONS OF A COMMONWEALTH HERBARIUM.

The need for a Commonwealth Herbarium in Australia has been frequently urged, not least at previous meetings of the A.N.Z.A.A.S. Australia must be almost unique among political entities of comparable size in the lack of a recognized central Herbarium, and the need for such an institution is reinforced both by the geographical isolation of the continent and by the strongly endemic nature of its flora. With the increasing activity of Commonwealth organisations in botanical and agricultural research in recent years, frequent calls have had to be made on the already over-taxed resources and staff of the State Herbaria, calls which could only be met to the detriment of the research and other activities of those organisations. Further, more intensive botanical surveys and agrostological studies have revealed very serious gaps in our knowledge of the systematics of many plant families which can only be filled in by intensive and prolonged studies by a large and well-trained staff.

As a palliative measure, arrangements have been made to co-ordinate the work of the different organisations in Canberra concerned with taxonomy, and it is hoped that it will be possible to bring together their collections in a separate herbarium building. This might well form the first step in the

creation of a Commonwealth Herbarium. There is an obvious danger that such an institution might tend to overlap rather than to be fully co-ordinated with the State Herbaria, especially if it is allowed to grow up without full consideration of the functions which it should perform. The following suggestions are submitted as a basis for discussion of this problem, the functions being grouped as co-ordinative, regional and research.

CO-ORDINATIVE FUNCTIONS:

The existence of a strong Commonwealth institution could be of material assistance to the State Herbaria as a focussing point for the co-ordination of their activities, even in fields in which the Commonwealth Herbarium itself played little active part. Thus, most of the State Herbaria are engaged, as long-term projects, in the preparation of floras of the respective States. It is obviously desirable that such floras should be prepared on a fairly uniform basis, not only as regards the method of presentation, but - more important - as regards the usage of different taxonomic units. There is some evidence of divergence in the concept of genera, species and lower units, and a Commonwealth Herbarium might well take the initiative in attempting to secure uniformity in this matter.

Then there is an obvious need for the preparation of a revised Flora Australiensis. Such a work could hardly be tackled by any of the State Herbaria, nor, certainly, could or should it be done by a newly created Commonwealth Herbarium. The latter could, however, do a great deal to facilitate it. It might be suggested, for instance, that a revision might be done in much the same way as that used in the preparation of the "Flora of North America". The work would be prepared in instalments, each instalment dealing with one family or a small group of families, and being written by a botanist or botanists with a special knowledge of the families concerned. Such botanists are at present to be found principally on the staffs of the State Herbaria, but to enable them to undertake work of the nature indicated, it would be essential to relieve them from semi-routine activities which at present occupy much of their time. This might be done by the Commonwealth, through the Commonwealth Herbarium, making available funds to enable the State Herbaria to appoint junior botanists to take over many of the more routine activities. In this way, fairly rapid progress might be made in preparing accounts of certain sections of the flora, while the Commonwealth Herbarium would later be able to assist more directly with those sections requiring more intensive study and research.

The Commonwealth Herbarium might also take the initiative in preparing lists and indices of general value to all taxonomists. These might include an index of the location of the type specimens of Australian species and the preparation and maintenance of photographs of such types. A check-list of the principal collections located in Australian Herbaria, would be of value and could be combined with some machinery to ensure that new collections of interest to Australia should be acquired for one or other of the institutions here, if necessary with Commonwealth financial assistance. Similar provision should be made to ensure that all books and periodicals of taxonomic interest are acquired for one or other of the institutions, at the same time reducing unnecessary duplication.

Revised and more complete lists of standardized vernacular names would also be prepared by the Commonwealth Herbarium.

A further major activity would be in connection with a vegetation survey of the Commonwealth. Excellent work has been done by botanists of the State Herbaria and others, but the co-ordination of such regional studies on an Australia-wide basis is not at present adequately covered. Following South African precedent, the Commonwealth Herbarium might well take an active part in such a survey.

REGIONAL FUNCTIONS:

While the various State Herbaria have done and are doing excellent work extending far beyond the limits of their State boundaries, it is nevertheless true that the very nature of their financial control imposes limitations on this extension. While, for instance, Queensland botanists have done much work in New Guinea and the Northern Territory, any great extension of this work and the preparation of modern floras for these regions must be dependent upon the provision of greatly increased Commonwealth financial support. It would seem preferable that the Commonwealth Herbarium should itself accept the responsibility for taxonomic work in the Commonwealth Territories, although especially in the early stages it would necessarily be greatly dependent upon both the collections and the accumulated knowledge of the State botanists. It is particularly important that taxonomic work in such regions should be closely integrated with and readily available to other field workers, and this can only be ensured if the central herbarium is located close to the laboratories of the organisation conducting the field surveys. In this way, too, it would be possible for the botanists of the State institutions to concentrate more fully on the "systematic" specialization which is essential for the production of a revised Flora Australiensis and for the general advancement of systematic botany in Australia.

RESEARCH FUNCTIONS:

As already noted, many of the families and genera of Australian plants are in need of thorough revision. Some of the more urgent problems have been, and are being, tackled by botanists at the State Herbaria. It seems desirable that the Commonwealth should encourage this by the provision of funds to enable the State institutions to employ junior botanists to relieve the research botanists of more routine duties. The more promising of these junior botanists would in turn graduate to research botanists, and there would gradually be built up throughout Australia a body of specialists in the various plant groups.

This will, however, still leave an important gap in the research organisation which might be filled, in part, by the staff of the Commonwealth Herbarium. While fully recognising that comparative morphology must remain as the main basis for taxonomic work, it must also be recognised that it is frequently necessary to seek the assistance of other branches of plant science in the solution of taxonomic problems. This has been well brought out in recent publications and discussions of the "new systematics". Thus, ecology, anatomy, cytology, genetics and bio-chemistry may all, on occasion, provide

data which throw new light on taxonomic difficulties, and the need for such data becomes increasingly apparent when intensive use is made of taxonomy in applied botany. It should be possible to have on the staff of a Commonwealth Herbarium a small team of specialists which could help in the solution of such problems, and thereby supplement the work of the State Herbaria without in any sense superseding them.

No attempt has been made above to deal in detail with the organisation of a Commonwealth Herbarium. It was considered, however, that a meeting such as this affords a rare opportunity for ascertaining whether or not there is felt to be a real need for such an institution, and to discuss the functions which it might have. The suggestions made are purely personal ones and are intended only to promote discussion. While reference has been made throughout to "State Herbaria", it will be apparent that most of the comments apply equally well to university and private collections.

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SOME RECENT PUBLICATIONS OF INTEREST.

(Comments on these are invited. The entries are designed for easy cutting out and pasting on standard 5" x 3" index cards. Reviews may appear later.)

Bailey, L.H. 1941-1944. Standard Cyclopedia of Horticulture, in 3 vols. Macmillan, New York, \$20. A new and up-to-date work, but closely modelled on Bailey's earlier Cyclopedias. (Ed.)

Bailey, L.H. & Bailey, E.Z. 1945. Hortus Second; a concise dictionary of gardening, general horticulture and cultivated plants in North America. Reissue. Macmillan, \$5.

Black, J.M. 1943. Flora of South Australia. Part I, 2nd. ed. Government Printer, Adelaide, 7/6.

Blake, S.F. & Atwood, A.C. 1942. Geographical guide to the Floras of the World. Part I - Africa, Australia, North America, South America and Islands of the Atlantic, Pacific and Indian Oceans, 336 pp. Washington (U.S.D.A.) Miscell. Publicn. No. 401 (a bibliography). 75 cents.

Blake, S.T. 1947. The Cyperaceae collected in New Guinea by L.J. Brass (Carex). Arnold Arboretum 28: (1), 99-116. Pt. II (Mapanioideae and Scirpoideae) l.c. (2), 207-230.

Burbidge, N.T. 1944 (pubd. 1946) A Revision of the Western Australian species of Triodia R.Br., J. Roy. Soc. W.A. 30: 15-33.

Burbidge, N.T. 1945-6. Morphology and Anatomy of the Western Australian Species of Triodia R.Br. I. General Morphology. Trans. Roy. Soc. S.A. 69: (2), 303-308. II. Internal Anatomy of Leaves l.c. 70: (2), 221-234.

Carter, C.E. 1946. The Distribution of the More Important Timber Trees of the Genus Eucalyptus. Atlas No. 1. Commonwealth Forestry Bureau. Commonwealth Government Printer, Canberra. With 42 maps 24" x 24". For distribution by the Commonwealth Forestry Bureau, Canberra.

Cunningham, G.H. 1944. Gasteromycetes of Australia and New Zealand. 236 + xv pp. 60/- nett. Obtainable only from the Printer, John McIndoe, 76 Vogel St. Dunedin, N.Z. or the Author, Auckland, N.Z.

Darlington, C.D. & Janaki-Ammal, E.K. 1945. Chromosome Atlas of Cultivated Plants. Allen & Unwin, London. 19/6 (Australian price). A comprehensive world-list of chromosome numbers, not confined to cultivated plants.

Gardner, C.A. & Dell, E. 1943. West Australian Wild Flowers. 112 colour plates from water-colours and colour photographs, each with short notes; 9½" x 12"; 4th ed. West Australian Newspapers Ltd., Perth. 10/6.

Hartley, W., Melvaine, A. et al. 1942. Standardized Plant Names (a list of standard common names for the more important Australian Grasses, other Pasture Plants and Weeds). Council for Scientific and Industrial Research Bull. No. 156, 99 pp.

Hatch, E.D. 1946. List of Orchid Species Common to Australia and New Zealand. Trans. Roy. Soc. N.Z. 76: (1), 58-60.

Healy, A.J. 1945-6. Contributions to a knowledge of the Naturalised Flora of New Zealand. No. I. Trans. Roy. Soc. N.Z. 75: (4), 339-404. (Vide also l.c. 74:)

Hodgson, E.A. 1946. New Zealand Hepaticae (Liverworts) V. The Family Jungermanniaceae. Trans. Roy. Soc. N.Z. 76: (1), 68-86.

Kelsey, H.P. & Dayton, W.A. (for the American Joint Committee of Horticultural Nomenclature) 1942. Standardized Plant Names, 2nd edn. J.H. McFarland Co. Harrisburg, Pa. \$10.50.

Lothian, N. 1946. Critical notes on the Genus Wahlenbergia, Schrader; with descriptions of new species in the Australian region. Proc. Linn. Soc. N.S.W. 71: (3-4) 201-235.

Morrison, Crosbie (Editor) 1946. Melbourne's Garden. A descriptive and pictorial record of the Botanic Gardens, Melbourne, commemorating their centenary. Melbourne University Press, 21/-.

Nelmes, E. 1942-43. The Australian Carices. Proc. Linn. Soc. 155 Session, 277.

Nelmes, E. 1946. A key to the Carices of Malaysia and Polynesia - Kew Bull. 1946, No. 1, 5-29.

Rupp, H.M.R. 1943. The Orchids of New South Wales. Issued from the National Herbarium, Sydney, as a part of the "Flora of New South Wales." Apply to the Chief Botanist. Cloth, 9/-.

Rupp, H.M.R. 1945. Australian Orchids. List of species described or recorded 1900-1945, Victorian Naturalist. 62: (4), 65-73 and 62: (5), 92.

Sainsbury, G.O.K. 1945-6. New and Critical Species of New Zealand Mosses. Trans. Roy. Soc. N.Z. 75: 159-186.

Simpson, G. 1945. A Revision of the Genus
Carmichaelia. Trans. Roy. Soc. N.Z. 75: (2)
231-287.

Smith-White, S. 1942. Cytological Studies in the
Myrtaceae, I - Microsporogenesis in several genera
of the tribe Leptospermoideae, Proc. Linn. Soc.
N.S.W. 67: (5-6), 335-342.

White, C.T. 1944. Contributions to the Queensland
Flora No. 8 Proc. Roy. Soc. Qld. 55: 59-83.

White, C.T. 1947. Ditto, No. 9. 1.c. 57:
21-36. (Issued separately 1946).

Womersley, H.B.S. 1946. Studies on the Marine
Algae of South Australia - Introduction and
No. 1. The Genera Isactis and Rivularia.
No. 2. A new species of Dasyopsis (Fam.
Dasyaceae) from Kangaroo Is. Trans. Roy. Soc.
S.A. 70: (1), 127-145.

Benl, G. 1940. Die Systematik der Gattung
Gahnia Forst. Betan. Archiv. 40: 151-257.

Benl, G. 1940. Nomina nova vel emendata generis
Gahniae Forst. Fedde, Repert. Bd. 49: 30-34.

CURRENT NOTES.

Mueller Memorial Medal: We congratulate Mr. C.T. White, Government Botanist of Queensland, on being presented with one of the two Mueller Memorial Medals awarded by the Adelaide meeting of the Australian and New Zealand Association for the Advancement of Science, in August 1946. The honour is in recognition of his work on the systematic botany of Queensland.

Clarke Memorial Medal: Mr. J.M. Black of South Australia received this distinction from the Royal Society of New South Wales in April, 1946, for his contributions to the systematic botany of South Australia. The medal is given for distinguished work in Natural Science relating to Australia and her territories. Mr. Black also received the congratulations of the Systematic Botany Committee on April 28th, his 92nd birthday; he is busy preparing the second edition of Part II of his "Flora of South Australia".

Systematic Botanist in Canberra: Miss N.T. Burbidge, formerly at the Waite Agricultural Research Institute, Adelaide, has recently been appointed to the new post of Systematic Botanist, in charge of the Herbarium of the Division of Plant Industry, Council for Scientific and Industrial Research, at Canberra.

Forest Botanist, Papua-New Guinea: Mr. J.S. Womersley last year received the appointment of Botanist to the Forestry Department of Papua-New Guinea. He hopes to form a herbarium there before long.

Professor of Botany, Victoria University College, Wellington, New Zealand: Dr. H.D. Gordon, hitherto representing Tasmania on the Systematic Botany Committee, has lately been appointed to this Chair.

International Association of Wood Anatomists: The new Secretary-Treasurer unanimously selected in succession to Dr. L. Chalk, is Dr. H.E. Dadswell (Australia), Officer-in-Charge, Section of Wood Structure, Council for Scientific and Industrial Research, Melbourne, Victoria. (Trop. Woods No. 88: December, 1946).

Henrard Jubilee Volume of "Blumea": Australian systematists invited to contribute articles on grasses to this issue of "Blumea" published in honour of Dr. J. Th. Henrard of Leiden, were Miss N.T. Burbidge (then in Adelaide), and Mr. S.T. Blake (Brisbane). The volume has recently been published in Holland. Some years ago, it will be remembered, Henrard completed a monograph on the genus Aristida.

War-damaged Herbaria: News has been received that R. Pilger is now Director of the Berlin Herbarium, where all that remains is a small collection, chiefly of European plants, and a few books. A detailed account appeared in Biologia (Editor, Frans Verdoorn) 1: (3) 10, March, 1947. There can be no thought of continuing with "Die Natürlichen Pflanzenfamilien" for many a long day.

Dr. Karl Rechinger has also written from Vienna. He gives a list of 100 families of flowering plants no longer represented in the Herbarium of the Naturhistorisches Museum, and wishes to begin rebuilding the collections by exchange with Australia. (Also V. Science p. 192, August 24, 1945 and Biologia p. 7, February 1947).

Netherlands East Indies: News (from Dr. Verdoorn) of botanists and botanical institutions, since the war, has appeared in the Australian Journal of Science, p. 79, December 1945, and p. 129, April 1946. In the earlier reference it was stated that the Buitenzorg Herbarium collections and Botanic Gardens had not suffered serious damage during the Japanese occupation of Java.

Fresh-water Algae (Desmidiaceae): A.M. Scott, 2824 Dante Street, New Orleans 18, La. U.S.A. writes saying that he wishes to establish contact with an Australian worker interested in the above. His object is to exchange publications and local desmid - bearing material, especially from the vicinity of Arnhem Land, New Guinea and the adjacent islands. He encloses a reprint by himself and G.W. Prescott, "The Desmid genus Microsterias Agardh in the South-east U.S.A." (Pap. Mich. Acad. Sci. Arts and Letters 28: 67, 1942). Would those able to collect please communicate direct with A.M. Scott.

PROFESSIONAL APPOINTMENTS AND SYSTEMATIC BOTANISTS:

Although it will not often be practicable to use this half-yearly publication as a medium for advertisements under this heading, it might be of the greatest advantage if the Systematic Botany Committee were to act as a clearing house for exchanges of this type of information. It will probably not produce quick results at present, but readers are encouraged to use it as a repository for even tentative requirements. Communications should be addressed to the Honorary Secretary.

NEXT MEETING: Future meetings for systematic botanists will be held at each Congress of the Australian and New Zealand Association for the Advancement of Science; the next of these is in Perth, 20th-27th August 1947, when the Committee will report on its activities, and possibly arrange some part of the programme of Section M (Botany). Among the subjects for discussion will be the next meeting of the International Botanical Congress in Stockholm in July 1950, and any matter of international importance, such as Nomina Conservanda, which Australia may wish to raise there.

CONTRIBUTIONS TO AUSTRALASIAN HERBARIUM NEWS: Correspondence and contributions (signed) should be addressed to the Honorary Secretary, Systematic Botany Committee, Botany Department, University of Adelaide, South Australia. They should be typed, double-spaced and on one side of the paper only; copies in duplicate, whenever possible, would be appreciated.
