

THE WEED SOCIETY/ OF NEW SOUTH WALES

c/o Department of Agriculture,
State Office Block,
Phillip Street,
Sydney. 2000.

P.O. Box K287
HAYMARKET. 2000

73/1 - MARCH, 1973

ANNUAL MEETING AND ELECTION OF OFFICERS

The Annual General Meeting of the Society was held in the Department of Agriculture Conference Room on the 28th February, 1973. The following were elected to office for the ensuing year :

President:	Dr. P.W. Michael
Vice President:	Mr. K.A. Watson
Secretary:	Mr. W.J. Burke
Treasurer:	Mr. G.S. McMaster
Immediate Past President:	Mr. A.D. Mears.
Committee Members:	Mr. M.W. Barrett, Mr. J. Toth Mr. B.A. Auld Mr. A.N. Johnston Mr. E. Boersma Mr. J. Strang Mr. J.M. Swain.

PRESIDENTIAL ADDRESS BY Dr. P.W. MICHAEL ...

DOES TAXONOMY MATTER?

The main interest in taxonomy for those who are concerned with weeds and weed control is the end product - a volume or a number of volumes which would enable us without too much difficulty to identify weeds we do not know or to check on the identity of weeds we think we know. To the weed taxonomist, this is a thoroughly practical aim.

But what sort of view do we have of the practising herbarium botanist lost in a store of boxes of dried specimens and books? Do we understand that without his painstaking, often long-suffering efforts such a volume would never be forthcoming?

Taxonomic studies of many of our weedy genera are not easy. What sort of work is entailed? First, the close study of existing collections in Australian Herbaria. Almost invariably one will find that herbarium collections are inadequate and that further field collections are necessary. At best, these should be made by the taxonomist himself. In difficult groups, growing of plants from seed may be necessary. I believe that a proper understanding of the taxonomy of Echinochloa (on which Dr. Vickery and I have been working part-time for some years) would have been impossible without growing a wide range of material. Many of our weeds are alien plants and collection of/and or herbarium material from overseas may be indispensable. The existing literature, which may or may not be readily available, is often inadequate, descriptions are often poor and not definitive. There are many frustrations but there are sufficient problem genera to relieve the monotony.

Cytological examination, chemical taxonomy and other aids to conventional morphological study may be necessary. Taxonomy still requires a certain mixture of intuition and objectivity.

The correct botanical name of a weed, in the first instance, satisfies our curiosity, but more important, it enables us to communicate with others. The botanical name of a weed is the key to its literature. Without it, how can we find out what is known about it? Common names alone are insufficient as they often vary from place to place. Before physiological and ecological studies can be truly meaningful, we must know and we must be able to tell others what plants we are dealing with. Accurate studies on the geography of plants are impossible without the firm basis of correct identification.

It is very important to be able to establish the identity of any new weed appearing in a particular area. Sometimes it is very difficult and we need in Australia taxonomists who are familiar with weeds from other parts of the world. As an example, Solanum carolinense, a serious perennial weed of the U.S.A., was collected in Queensland in 1963, but it was not until last year that its true identity was established by David Symon from the Waite Institute.

Echinochloa phyllopogon (E. crus-galli var. oryzicola or E. oryzicola) is an important weed of ricefields in Japan and occurs also in California. So far it has not been found in Australian rice-growing areas. We have other species or forms of Echinochloa which, I think, were introduced from California, so I believe it to be most important for us in Australia to be able to recognise E. phyllopogon.

We have in Australia, perhaps the most diverse collection of weed species of any country. The Sydney Metropolitan Area, where I happen to teach, supports to a greater or smaller degree, a fair proportion of them. A proper taxonomic study of the weeds of the Sydney Metropolitan Area would be of great benefit to weed workers not only in New South Wales but throughout Australia. You may say, "Isn't there enough known already to be able to go ahead and prepare a useful weeds flora - and what about the literature which already exists?". From my experience, the existing floras or books on weeds are not at all adequate for the weeds worker in New South Wales, who wants an informed guide to identification.

It would be possible, with present knowledge and plenty of labour, to prepare a worth-while manual, but there would be lots of gaps because of our limited knowledge of many of our weedy genera. A weeds book to be most useful must be amply provided with diagnostic drawings, appropriate pictures and keys.

The morphological characteristics and identity of a number of bad bulbous Oxalis ssp. is known. It is important to describe these in simple terms so that, for example, the home gardener in Sydney could recognise them without difficulty. I refer especially to O. corymbosa, O. latifolia and O. pes-caprae. The biological characteristics of all three species have not yet been studied however. On the other hand, there is another bulbous Oxalis sp., potentially, I think, the worst garden weed of all, occurring in parts of Australia, New Zealand and elsewhere. It has been well described but is usually wrongly called O. latifolia. I do not believe that we should be content to call it Oxalis sp. Taxonomic studies are required to establish its identity.

There are 2 very common Digitaria spp. (Summer Grasses), D. sanguinalis and D. ciliaris (D. adscendens) which occur in southern Australia. Superficially, they are very similar in appearance, but I do not believe that it is sufficient to say with the New South Wales Department of Agriculture's "WEEDS" that they are closely allied and

similar and leave it at that. The truth is, we do not know their comparative biological characteristics. D. sanguinalis appears to be of cooler, more temperate distribution, D. ciliaris of warmer, more subtropical distribution. They both occur in the Sydney region. They can be distinguished with confidence only with the help of magnification, but this doesn't prevent the differences from being clearly shown in diagrams.

There are a number of weeds, known by a common name, but whose botanical identity is not known. One important example is "yellow vine", a common weed of irrigated lands in the north-west of New South Wales. We know it is a Tribulus sp., but that is as far as we can go. It is closely related to the very broad species Tribulus terrestris (caltrop). T. terrestris is only one of a number of common weeds known to be very variable. It is usual to lump all variations into one broad species as has been the case with Rubus fruticosus (blackberry), Solanum nigrum (black-berried nightshade) and Amaranthus hybridus. Fortunately, recent work has cleared the way for the splitting of each of these broad species into satisfying taxonomic units, but there are many others which demand attention.

The possibility of there being important, practical differences between forms of the one species or closely related taxa in one broad species makes their study worth-while. For example, different responses to herbicides in closely related plants are becoming more and more apparent. Blackberry (Rom Amor's work) and oxalis pes caprae (Malcolm Catt's work) are two examples. There are many important weedy genera in Australia which must be seriously studied before we could give them adequate taxonomic treatment in a weeds manual. Despite all the work done in Australia on wild oats, the genus Avena is anything but clearly understood. Bromus and Xanthium are just two other examples.

In the history of botany and agricultural science in Australia not one, not even one, person in his professional capacity has been engaged full-time on problems of identification of weeds. It is fortunate, however, that a number of our botanists, notably Black and Maiden, have devoted considerable attention to weeds. But this is not good enough. The situation in Australia compares quite unfavourably with that in New Zealand and Canada where serious attention has been given to these problems. Recently, the New South Wales government has established a fund, the N.S.W. Royal Botanic Gardens and National Herbarium Scientific Research Fund, for the support of taxonomic work on native plants. It could surely be argued that there is a strong case, too, for the establishment of an Australian fund for work on alien plants which make up the greater part of our weeds flora.

Taxonomic problems faced by the weeds worker in Australia were aired at the Weeds Conference in Hobart in 1970 and a resolution was formulated to the effect that such work should be supported by the Commonwealth Government. But the resolution was apparently given the cold shoulder - perhaps it wasn't taken seriously!

The Australian Weeds Committee, which consists only of members of Federal and State Government departments, brought the resolution before the appropriate Commonwealth body. I do not believe that we can expect much consideration from the Commonwealth Government unless the Australian Weeds Committee is strengthened to include a wider representation of interests not only from government departments but also from universities and industry. Some of our members will recall Leon Smith's account of the Canadian set-up. Could we not follow Canada's example?

PETER W. MICHAEL.

PERSONAL ITEMS:

It is pleasing to learn that Ken Watson is again employed and rumours that we would lose him from our ranks are not founded on fact. Ken advised us that he is now working for Colin Campbell Chemicals.

Allan Murphy seems to be the only casualty this year, - he told us that he is going to Hong Kong for at least two years. I wonder if it is true.

As far as I can ascertain only three members, Peter Michael, Kath Bowmer and Eric Cuthbertson are going, or went, to the New Zealand Conference.

The Society has awarded Honorary Membership to Charles Greenham for his outstanding work in weed science in this country.

BOOKS: Dr. J.T.Swarbrick has notified us of the availability of a book, "The Australian Selective Weed Control Handbook 1973". This is priced at \$3.00 and available from Dr. J.T.Swarbrick, Herbicide Recommendations, 3A Ipswich Street, TOOWOOMBA. 4350. Please include 15¢ postage.

Proceedings of The Weed Society Vol.V. should be posted to members within 6 weeks. Hope I am not too much wrong in my estimate.

IN PASSING: After years of great effort Bernie Long has blackberries under control, so he says, then this letter -

Text reads,

Wilde's Meadow,

"I would like some advice on the eradication of blackberries from the experts. I myself being a real amatuer with Thirty seven years experience not one year, every year of thirty seven.

I am still finding blackberries, when you feel you are rid of them is when you have not.

The only advice I could give is for all people eating uncooked fruit, is to collect and burn their dung, and get the Wild Life people to have their birds fitted with corks."

Bernie Long - if you wrote this letter I'll cork you! (Editor).

Balance Sheet of Society for 1972 was presented by the Treasurer and adopted.

WEED SOCIETY OF NEW SOUTH WALES

Statement of Assets as at 28th February, 1973.

Balance as per Bank Certificate	-	\$ 338.81	
<u>Less</u> unrepresented cheques	-	<u>20.00</u>	\$318.81
Loan to Building Society		\$ 913.86	
<u>Add</u> Accumulated interest		<u>\$ 60.37</u>	<u>\$974.23</u>
<u>TOTAL OF ASSETS</u>			<u>\$ 1,293.04</u>

O.B. SIMPSON
Auditor

G.S. McMASTER
Hon. Treasurer

28th February, 1973.

WEED SOCIETY OF NEW SOUTH WALES

STATEMENT OF RECEIPTS AND EXPENDITURE
FOR THE PERIOD ENDING 28th FEB., 1973

<u>RECEIPTS</u>		<u>EXPENDITURE</u>
Bank Balance as at 29.2.72	\$ 515.24	Office Services
Petty Cash on hand 29.2.72	3.94	Audit Fee - O. Simpson
<u>Sundry Income</u>		Hire of Meeting Hall
Corporate Subscriptions	\$250.00	Refund of Subscriptions
Ordinary Subscriptions	306.00	Petty Cash Payments
Sale of Publications	13.24	Payment to Aust. Medical Publishing Co.
Bank Interest	<u>16.90</u>	Payment to P.M.G. - Postal Box
		Donation of Prizemoney - Sydney University
		Petty Cash held by Treasurer
		Balance as per Bank Statement \$338.81
		Less Unpresented Cheque
		037068 - Uni. of Sydney
		<u>20.00</u>
		<u>318.81</u>
	<u>\$ 1105.32</u>	
		<u>\$ 1105.32</u>

I certify that I have examined the Books of the Weed Society of New South Wales and found them to be complete and accurate.

O.B. SIMPSON
 Auditor.

G. S. McMASTER
 Hon. Treasurer

28th February, 1973.