

PROSTANTHERA STUDY GROUP

NEWSLETTER NO.10

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LEADER

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My apologies for being overdue with the newsletter. Concerning Prostanthera, 1986 has been busy and interesting. The principal activity of this group, collecting species from the wild, is very rewarding considering the restricting factors of extreme drought in N.S.W. & Qld., lack of sufficient time and the rising cost in travelling.

I need to thank a small group of people who have assisted in some way in the aims of our Study Group. Information, plant material and localities have come from Peter Olde and Ray Brown (Grevillea Study Group), Barry Conn (Melbourne), Noel Cartwright (Grenfell), Peter Hinds (Sydney), Peter Althofer (Burrendong) George Althofer (assisting with the Burrendong Herbarium listing), Peter Ollerenshaw (Canberra), Alan Fairley, Phill Moore, Colin Gibson and Robert Miller.

Robert has contributed Part I of his article "Prostanthera of THE SYDNEY REGION" further in this newsletter.

Field trips by Robert are many and our collection has increased accordingly. I have accompanied him on some of these trips and am always delighted when Prostanthera are found. Prostanthera discolor was collected at Coxs Gap, and we intend returning in September to collect possible flowering forms. Prostanthera prunelloides from the Great Dividing Range off the Bylong Rd., Prostanthera hirtula has evaded us for some time but was found near Robertson, P. lasianthos and P. sieberi from Macquarie Pass. P. sp., a small leafed plant recently found by Ray Brown was collected near Bundanoon.

Earlier this year, I was able to collect P. lithospermoides, P. odoratissima, P. euphrasioides and P. leichardtii (recently renamed) near Glenmorgan in South east Qld. During the current drought, I managed to pick the worst time possible to fly to Roma, hire a car and drove to Dave Gordon's property "Myall Park" I spent 2 enjoyable days with Dave and without his help would never have found these plants. P. leichardtii on his property looked dead, he assured me it would recover when it rained. I was able to get cuttings from another locality not as badly effected. Prostanthera euphrasioides was in better shape, I was able to take cuttings, small seedlings and seed. Regarding P. lithospermoides and P. odoratissima these had to be seedlings (no seed or cuttings available). I am not totally convinced I have correctly collected them but they are growing well. Seem to be mint bushes but only time will tell. Even in drought, I was impressed with the beauty of the local bush, there are about 40 Acacia species, lots of interesting Eucalyptus. Lonesome National Park with its Bottle trees and Callistemon 'Dawson River'.

Fees 1986

Have been increased to \$4 from previously \$2, I had considered \$3 but this would not be suitable as most seem to prefer to post cash and \$3 is not possible.

JOSEPH BANKS NATIVE PLANT RESERVE, SUTHERLAND N.S.W.

The Study Group in conjunction with the Sutherland S.G.A.P. recently provided the Reserve with a number of *Prostanthera* for planting in the area adjacent to Bates Drive. A reasonable percentage has survived, we expect to replace the losses and add to this collection when suitable plants are available. *Prostanthera lasianthos* (several forms) in particular, are developing into good trees, often this species is unreliable in some gardens, probably due to an unsuitable position. *P. lasianthos* in the wild, is usually growing along the edge of a taller canopy of eucalyptus or a semi rain forest situation. Although basically a fringe plant, seedlings are often growing in adjacent open ground. The Reserve has basically a similar canopy suitable for *P. lasianthos* and other species.

Commercial Potting Mix

About twelve months ago, I purchased 8 cu. metres of potting mix from a company specializing in producing potting mixes to suit growers requirements. I discussed the various alternatives with the Sales Manager and decided on the mix he advised. The reason for a commercial mix of this quantity was firstly: to save time, and have a reliable consistent mix for all the plants we intended potting on. Unfortunately, almost complete disaster, (putting it mildly). *Prostanthera* were growing for 1988 Bi-Centenary stopped growing and many died when potted up into this mix. We had managed to grow most of the cutting material we had collected from the wild and material sent by members in response to my requests following the plant list update. Of these plants, probably numbering a few thousand, only a small percentage have survived and only because they were bare-rooted and potted into another mix.

This loss has been disappointing to say the least and our aims have been set back quite a bit. A soil laboratory made tests of the potting mix and indicated it to be very low in nutrient levels and that little growth would occur with such nutrient levels. After 6 months of phone calls, letter writing and some verbal abuse from the General Manager, I have now received a full refund for the potting mix.

FURTHER DISAPPOINTMENTS

There are, of course, exceptions to the following, I don't particularly like writing this, maybe I shouldn't, however I am a little disappointed for these reasons.

Fees: A lot of members have let fees lapse. I would prefer a letter if they no longer wish to belong to the Study Group.

Study Group Meeting: Only Les, Roger and Evan could make it.

Wild Scourse Material and Seed: Little help with cutting material and no seed.

1988 Bi-centenary: No offers of help for our *Prostanthera* display by members. I understood funds were to be made available from N.S.W. Region. I put a request in writing, there has been no response.

Copy for Newsletters: I think it is important for members to contribute, so far there has not been much input.

Sydney Wildflower Exhibition 1985: Virtually no offers of help.

On the brighter side: I don't expect all members to be like Robert Miller. I doubt that any other Study Group has a more enthusiastic member than Robert. A young man with a wife, 2 children and an uncontrollable eagerness regarding Prostanthera and almost the same feeling for many other Australian plants. At this point, I ask anyone reading this who knows locations of Prostanthera, to now write and inform me of plant locations.

CORRESPONDENCE

I would like to remind members they can write, phone or call in any time, particularly when visiting Sydney. I will answer all letters.

CUTTING MATERIAL

Financial members can request cuttings anytime. I will not be publishing lists until stocks have built up again.

WESTRINGEA

I am intending to include Westringea into the Study Group. We have been collecting a few for some time now. Being of the same family Lamiaceae, we find Westringea useful for grafting. I have made formal application with the Study Group Co-ordinator.

PROSTANTHERA MARIFOLIA

Some members will remember, for a time now, I have been concerning myself about a mint bush grown a lot and available at nurseries, known as Prostanthera marifolia. I believe the particular plant is a form of Prostanthera incana. Two specimens were sent to our Botanist in Melbourne Barry Conn who verified that it is definitely not Prostanthera marifolia. However there is still a cloud over the next question: the actual P.densa/P. marifolia identification.

George Althofer in his book "Cradle of Incence: writes of the Sydney Herbarium recording the species P. marifolia from Hunters Hill, Helensburg, Middle Harbour and Nymagee, unfortunately the Sydney Herbarium is unable to account for these actual specimens. Colin Gibson has found a plant at Helensburg similar to that found at Beecroft Peninsular, both it appears are probably Prostanthera densa. Barry Conn writes this in a recent letter and adds the distinction between P. densa and P. marifolia is very slight. I would appreciate your thoughts or comments on this matter.

Robert is compiling a complete report covering the P.densa/P.marifolia population

MEMBERS LETTERS

A recent encouraging letter from Dr. Max A. McDowall, Bulleen, Vic.

"Recently I have been growing forms of Prostanthera (aff.) denticulata collected in various parts of Victoria, including Brisbane Ranges, Grampians, Cape Conron, Rushworth and Bendigo Whipstick.

The form of Prostanthera rotundifolia growing on the Mt. Difficult Range Tableland (northern Grampians) is much stouter in stems and foliage than growing at lower altitudes. Barry Conn tells me that this is typical of alpine forms of the species, although that which I observed on the slopes of the Mount Buffalo on the roadside 200-300 m below the plateau, did not appear so fleshy.

I have successfully grafted a form of Prostanthera scutellarioides onto P. rotundifolia (2/2) and Westringea "Wynnyabbie Gem" (1/1) and two of these are growing and flowering in the garden, planted last summer. This form,

distributed in recent years by Alan and Margaret Lacey (Bushflora Nursery), flowers most of the year, especially Summer to Autumn, and is distinct from that described in Flora of the Sydney region in that the branchlets are more-or-less terete in cross-section. The clone was identified by Barry Conn, who considered at the time that the angular cross-section character used in the Beadle & al, key does not apply to this species. (Previously, I now recall, Brian Walters had recognized this as the form of Prostanthera scutellarioides with which he was familiar, growing around Sydney. However, when I later attempted to key it out, I got stuck on the stem character).

Several attempts to graft P. aspalathoides (Nth. Bendigo Whipstick, red) to these stocks have thus far been unsuccessful.

Several years ago SGAP Victoria Maroondah Group held a Prostanthera weekend at which a wide range of eastern Prostanthera species were sold. Some of the propagating material for this occasion was obtained from NSW members. I may try to do a survey through the Maroondah Group Newsletter of any plants from this exercise which members may still have under cultivation. For the occasion, I propagated some cutting material said to be P. scutellarioides which was distinctly different from the above form and which I have since lost. It flowered in Spring. I never attempted to confirm the identification.

This phenomenon of variation in the flowering habits among different forms of a species, is really quite important in horticulture and needs to be more widely recognized, and stipulated by SGAP members when distributing plants and propagating material. It would be convenient for us if such distinctions were reflected where appropriate by the recognition of separate infraspecific taxa. Thus, I have grown different forms of P. marifolia, one flowering in spring and the other flowering around the year. (Similarly, the upright fine-leaved form of Eremophila drummondii flowers for about 6 weeks in September-October, whereas the E.sp. affin drummondii (Kalgoorlie) with broader fleshy leaves, flowers most of the year. If Bob Chinook includes this in E. drummondii without recognizing a separate infraspecific taxon, we shall have difficulty in designating what plant we mean when we use the specific name. Dr. A. George in his revision of genus Banksia has in B. gardneri, recognized a var. hiemalis which, as its name implies, flowers in Winter time instead of Spring."

A letter very recently received (no date). Is there any offers to help Frank.

Frank Boas,
RR# (Sweeney Rd.)
Chemainus B.C.
CANADA VOR-IKO

Dear Brian,

Have read of your mint bush group in SGAP I am interested in gathering a collection of them for propagating and selling here. Our winters are a minimum temperature of -14°C . I have a greenhouse for overwintering in case they succumb to such temperatures. If a number of cuttings or seed can be sent, I will get the appropriate permit, plants will need a phyto sanitary certificate. I have just planted 300 species of Australian plants in (seeds). Hopes of introducing some of them here, first they must germinate. Please determine a cost if it is possible to ship plants or seed.

Signed Frank Boas

By Robert Miller

THE GENUS PROSTANTHERA IN THE SYDNEY REGION

The Genus Prostanthera belongs to the cosmopolitan family Lamiaceae which contains many culinary, medicinal and ornamental spp. Mentha Mellissa Origanum Salvia etc.

Prostanthera, however is endemic to the Australian continent and apart from a few commonly grown members, little use has been made of this potentially useful genus.

Two species, P. cineolifera and P. rotundifolia were used by Australia's early colonists living in areas where these mintbushes grew. P. cineolifera was found to be useful in the relief of colds and clearing congestion by sniffing the crushed leaves. The essential oil of P. rotundifolia has in the past been used as a carminative.

Botanically the Genus is divided into two distinct Sections.

Section I Euprostanthera

This section is further subdivided into -

- i. Series Racemosae
- ii. Series Axillares

which is further subdivided into subseries -

- (a) convexae
- (b) sub-concavae

Section II Klanderia

In the Sydney Region, Section I Euprostanthera only occurs; Section Klanderia being confined mostly to the inland and drier areas. Noteable exceptions being P. walteri and two newly described species P. porcata Mt. Badawang Region; and P. monticola NSW Southern Tablelands and Vic. Eastern Highlands.

EuprostantheraSeries I Racemosae

The first group of plants in this series have leaves mostly above 3 cm in length; P. lasianthos, P. prunelloides and P. caerulea.

P. lasianthos and P. prunelloides are distinguished botanically from P. caerulea by their pubescent calyces and one anther appendage much longer than the anther cell, where as P. caerulea has a glabrous calyx and both appendages are as long as the anther cell.

P. prunelloides has ovate, obtuse leaves which are normally entire, however one variety may have a few scattered serrations. Flowers normally occur in a simple raceme.

P. lasianthos has lanceolate to oblong-lanceolate leaves with prominent serrations on the juvenile leaves, grading to entire on the adult foliage. Flowers normally occur as a large raceme and often thyrses.

Prostanthera lasianthos in the Sydney region usually occurs on the margins of rainforest or along streams in wet sclerophyll forest. It is the largest member of the Lamiaceae family in the area; ranging in height from 2-8 metres depending on prevailing conditions; competition from other species, soil type and degree of exposure.

I have observed this species growing in competition with dense regenerative rainforest on the Illawarra escarpment, having a stem diameter of 6cm and a height of 30 ft and only being distinguishable from other rainforest asaplings by the carpet of white flowers on the rainforest floor.

However, it is most commonly observed as a large rounded shrub from 3-5 metres flowering November-January.

P. lasianthos may be observed in the Bulli Pass-Mt Ousley area and flowers in conjunction with Ceratopetalum apetalum. This form has finely serrulate, wavy margins, light green and thin in texture.

At Mt. Saddleback west of Kiama P. lasianthos occurs on the top of the mountain bordering the rainforest at the Picnic area. Here it grows vigourously in the rich volcanic soil.

The Blue Mountains form has thick dark green leaves with serrate-entire leaf margins and is normally associated with Basalt Caps in the Higher Mountains e.g. Mt. Tomah, Mt. Wilson.

At Wingello State Forest and Paddys River near Marulan, Prostanthera lasianthos is a compact bush of 2-3 metres normally flowering later in the season - Dec-Jan.

Other areas where it can be observed are Macquarie Pass, Belmore Falls, Carrington Falls and Robertson and Bundanoon areas.

Prostanthera caerulea in the Sydney region is confined to the central Blue Mountains: - Mt. Tomah, Mt. Wilson, Grose River, Lawson and Blue Mountains Creek.

This species has a distinct aroma; for the botanical novice and botanist alike this is the easiest way of distinguishing the species from some forms of P. ovalifolia and immature P. lasianthos. It is a rainforest verge plant, having a mixed plant association of sclerophyllus species and rainforest species.

Mt. Wilson is a Basalt Cap metres, which supports a rich and diverse flora. An abrupt change in vegetation types from sandstone sclerophyllus species to rainforest species is dramatically observed when driving to the mountain, reflecting the change in soil types.

In some of the shallow gullies draining from the basalt on the top of the mountain grows P. caerulea. It is usually found just below the basalt on sandstone derived soil. Here the species is a shrub of 1-2 metres and is found scattered along the roadside growing with P. lasianthos and rainforest species. In some of the shallow gullies P. caerulea grows as a frequent shrub to almost a pure stand.

In Blue Mountains Creek near Lawson, P. caerulea is associated with gallery rainforest verge flora; growing in a distinct band where light and moisture permit. From my observations, P. caerulea apparently colonizes the bushfire 'scorch area' of the rainforest and is an important species in the short term protection and recovery of the gallery rainforest in some portions of this creek.

Major species growing in association with P. caerulea at one site of Blue Mountains Creek.

Species Association

Dominant sp. *

Acacia elata	
Blechnum wattsii *	Lomatia myricoides
petersonii	Logania albiflora *
nudum *	Platysaceae lanceolate
Calicoma serratifolia	linearifolia
Ceratopetalum apetalum	Pultanaea scabra *
Cyathea australis	Sambucus australasica
Dillwynia retorta	Sticherus lobatus *
Grammitis billardieri	Todea barbata *
Gleichenia sp.	Tristania laurina
Hibbertia saligna	

Prostanthera prunelloides has at least 3 distinct forms in the Sydney Region :

- a) Northwestern Blue Mountains form
- b) Putty Road form
- c) Kurrajong form (1. Grose Lookout)

Prostanthera prunelloides in the North-western Blue Mountains is a small to medium shrub 1-2½ metres upright in stature, with undulate, ovate, grey-green, entire leaves possessing a pleasant scent. Flowers occur in a simple raceme and are normally white. This is a common species in the upper most gullies of the area, favouring shallow soils around sandstone boulders, rockledges and crevices.

Prostanthera prunelloides "Putty Road" is a delightful shrub from 1½-2m flowering prolifically in October. Its faint bluish-mauve to pale pink flowers adding a welcome splash of colour to the roadside. This species favours shallow skeletal sandstone soils. It has elliptical-ovate, undulate, dark glossy green leaves which are lighter on the undersurface, a few scattered teeth on the margins and a distinctly pleasant aroma. Unfortunately this form seems to be rapidly declining in numbers due to the absurd attitude of Government bodies allowing rural development to increase on extremely poor and unproductive land. Frequent burning of the 'bush' is ensuring the species decline in areas not yet destroyed by human habitation. There is a need to undertake population studies of this form. Who is willing to take up this study?

Prostanthera prunelloides Kurrajong is in cultivation at Bankstown City Wildflower Garden. I have not seen this form in the wild. If anyone knows where this plant occurs or occurred please contact Brian. This form usually reaches 2-3 m in cultivation and has glossy, green broad lanceolate leaves which are faintly aromatic. Its off white flowers usually occur in September. Seedlings (hybrids) of this form are variable. In this garden only seedlings germinating on top of sandstone rocks with leaf mould or in crevices develop into mature plants. This shows a close relationship with the other forms preferences for shallow skeletal soil on sandstone.

A similar form has been observed near the Grose R. by Alan Fairley, Phil Moore and Peter Hind.

to be continued.