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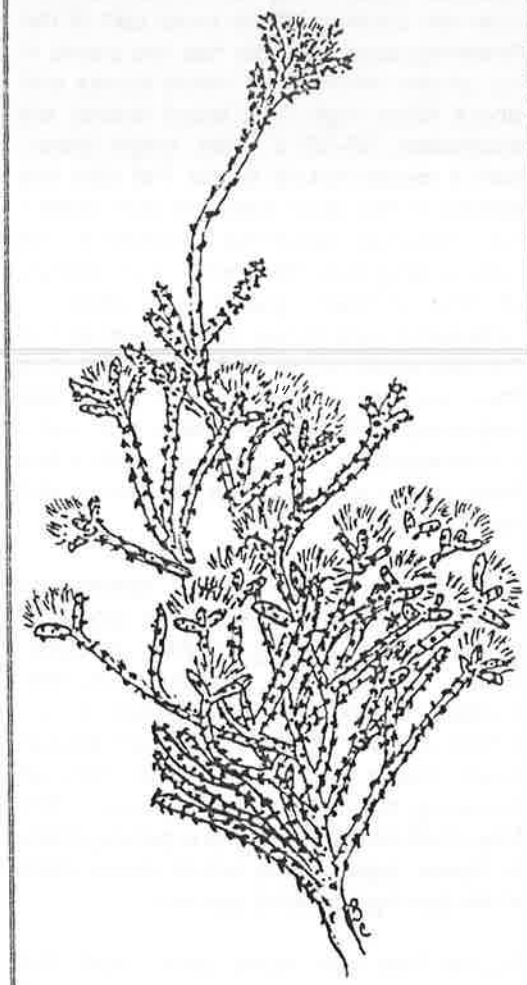
ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTS

THE AUSTRALIAN DAISY STUDY GROUP NEWSLETTER NO. 54



Ozothamnus scutellifolius x 1.3

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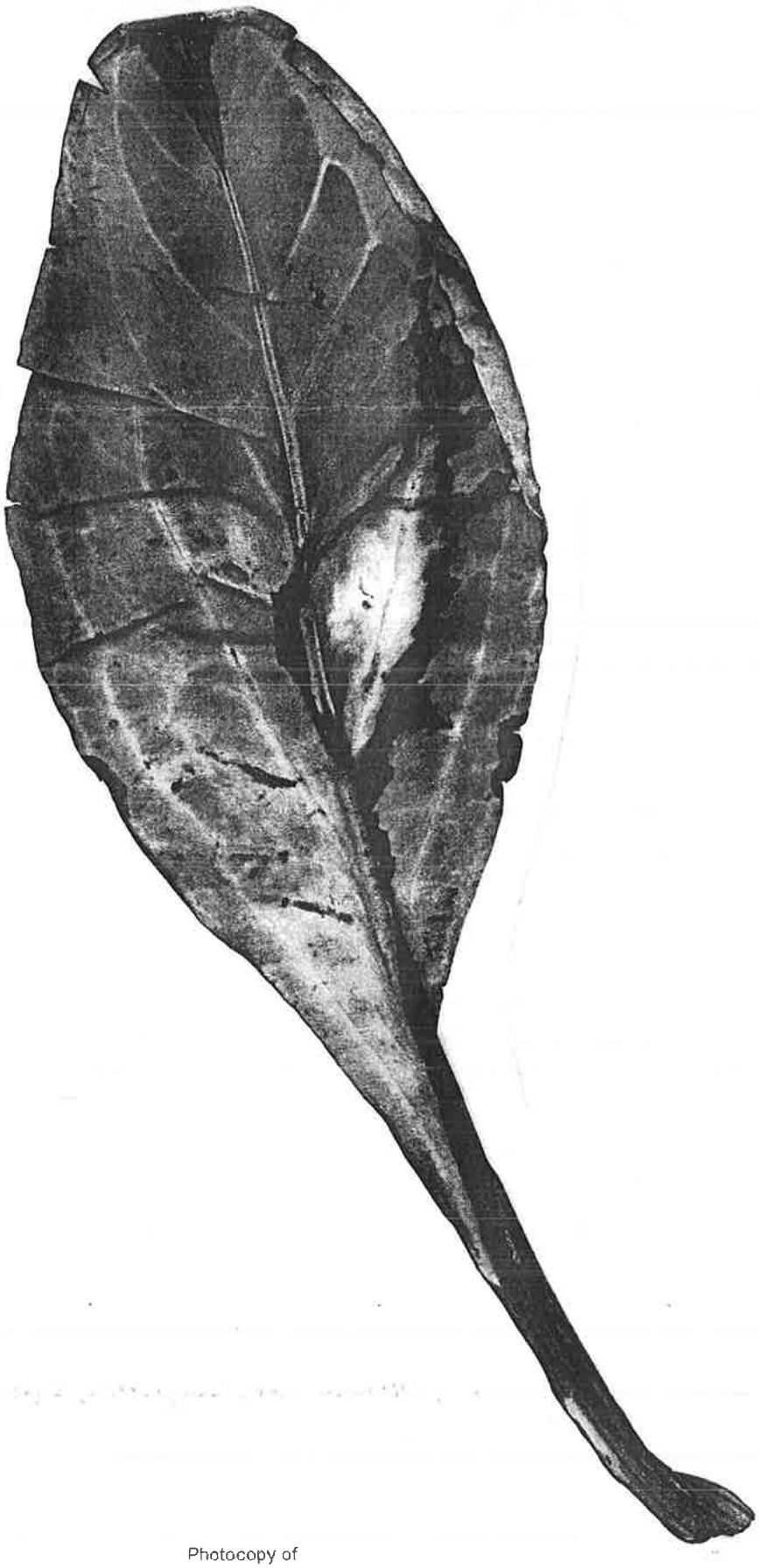
OFFICE BEARERS: Leader — Judy Barker, 9 Widford Street, East Hawthorn, 3123. Tel (03) 9813 2916, Fax (03) 9813 1195
Treasurer — Bev Courtney, ~~3 Burswood Close, Frankston, 3199~~ 9 Nirvana Close, Langwarrin, 3910
Conservation Officer (including ADSG Herbarium Curator and Provenance Seed Co-ordinator)
— Esma Salkin, 38 Pinewood Drive, Mount Waverley, 3149. Tel (03) 9802 6213
Everlasting Project Co-ordinators: Natalie Peate, 26 Kardinia Cres. Warranwood, 3134. Tel (03) 9879 9358
Joy Greig, 10 Stanfield Crt. Glen Waverley, 3150. (03) 9802 7765
Bev Courtney and Judy Barker (addresses above)
Newsletter editor — Judy Barker

SPECIES OR FORMS NEW TO MEMBERS



Photocopy of
basal leaf of *Bracteantha* sp. x 2/3

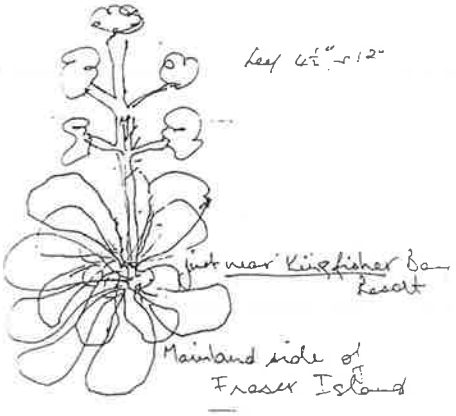
Bracteantha species

(This is an account of a *Bracteantha* sp. collected by Bryson Easton. The information about it was relayed by Pat Shaw.)

Bryson found six plants last September on the banks of Wanggoollaba Creek, which is on the mainland side of Fraser Island, just near Kingfisher Bay Resort. Other people have found the same species sited along Eli Creek. Bryson took two cuttings off the lower part of the flowering stem and now has two plants in his garden which are 1 metre across and about 40cm high. The basal leaves are spathulate, 32–35 x 11cm, bright green, with a raised mid-rib below. Pat sent two leaves in the post because she knew I was sceptical about the dimensions she was quoting over the phone. A photocopy of one of them graces this page — reduced in size to two thirds because the full size would not fit an A_4 page. Pat says there were short, fine hairs on a leaf she examined with her hand lens but under the microscope I could discern only a few hairs on the mid-rib of the two leaves she sent.

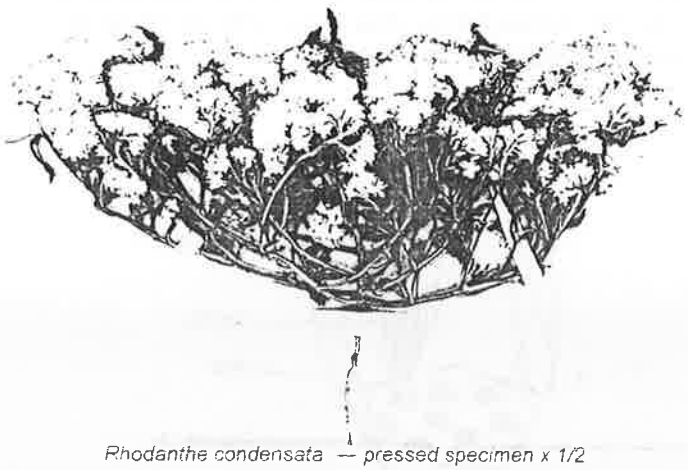
Pat described the basal leaves as 'layered', and she and Bryson produced this excellent drawing to show its habit. There is a central flower spike with clusters of yellow paper daisies, c. 2–2.5cm across, at the top. When Bryson found these plants they had finished flowering, but he has told Pat now (in mid-May) that he thinks they are getting ready to flower again. This would make them winter/spring flowering species.

Bryson has now found some seed. Pat will examine it under her microscope, and she will take a specimen to the herbarium to see what the botanists make of it.



Rhodanthe condensata (F. Muell.) Paul G. Wilson

Synonyms:
Helipterum condensatum F. Muell.
Argyrocome condensata (F. Muell.) Kuntze



Rhodanthe condensata — pressed specimen x 1/2

Derivation: *condensata* — crowded together, a reference to the arrangement of the heads in clusters.

Distribution and habitat: WA. Occurs on the coast between the Murchison River and Shark Bay. Grows on coastal dunes.

Description: A dense, low-growing annual to 25cm, subtly sweet-scented. Stems branch at and above the base, and bear a mixture of woolly hairs and short stiff hairs. **Leaves** are alternate, mid-green, sessile, 1–6cm x 2–6mm, narrow-oblong to linear. Margins are often wavy and the base slightly decurrent. Woolly and stiff hairs are present on both surfaces. **Flower-heads** are white, crowded together in dense terminal clusters, 1–4cm across. Individual heads are cylindrical, 4–5mm long and 4mm across, containing 10–13 florets, all fertile. The bracts are in rows, outer bracts papery and woolly; inner bracts having white slightly radiating blades with frilly margins. The blades have corrugated surfaces, and the cells at the margins are raised. **Fruits** are brown, obovoid, 1.5–2 x 0.6–1mm, with a moderate covering of short white hairs. The carpopodium is a cream ring, relatively broad. The pappus is 4mm long, composed of 14–16 evenly plumose white bristles. **In cultivation** plants are more open and less woolly.

Flowering period: In its natural habitat it flowers from August to October; in cultivation it flowers from September to November but the white clusters begin to form in August.

Propagation: Dormancy lasts 6–18 months in storage at room temperature. Seed germinates poorly in 20–25 days. A 24 hour soak in SISP prior to sowing increases germination. Some success has been achieved by sowing on a 2cm layer of beach sand over potting mix. Best sowing time is autumn but seedlings need protection in cold wet conditions.

Cultivation and uses: This annual has seldom been tried in cultivation. An open sunny situation in well drained soil is preferred. The compact habit, and the contrast between leaves and flowers make it a pleasing subject for small containers. It should do well in coastal sands. This species dries well.

Similar species: *R. psammophila* has been confused with *R. condensata* in the past. Both have woolly-hairy foliage and compact clusters of white heads, and the blades of the inner bracts have frilly margins and corrugated surfaces. *R. psammophila* is distinguished by its taller, more erect habit (to 50cm), and by the fact that each head contains 5 florets, only one of which is fertile. The pappus of the fruit is tardily deciduous. Under magnification the margins of the white blades are smooth. Minute reddish-brown short-stalked globular glands are present on leaf surfaces but are not easily seen among the woolly hairs.

Special notes: *R. condensata* is included in the section *Achyroclinoides*. Other species in this section are *R. ascendens*, *R. corymbosa*, *R. forrestii*, *R. haigii*, *R. laevis*, *R. nullarborensis*, *R. polycephala*, *R. psammophila*, and *R. tietkensii*.

by **Judy Barker.**

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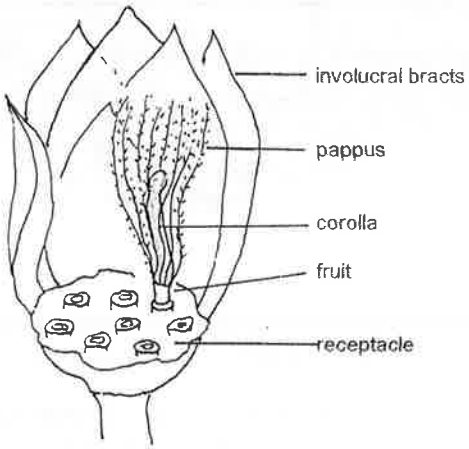
NAME CHANGE

In *Telopea* 5(1): 39–43, (1992) Everett, J. and Doust, A.N.L. reinstated the genus *Pycnosorus* during the revision of the genus *Craspedia*. *Craspedia chrysantha* was reinstated as *Pycnosorus chrysanthes* (Schltdl.) Sond. [as *chrysanthus*]. ***Pycnosorus chrysanthus*** (Schltdl.) Sond. is the new name in *A Census of the Vascular Plants of Victoria* by J.H. Ross 5th edn. (1996).

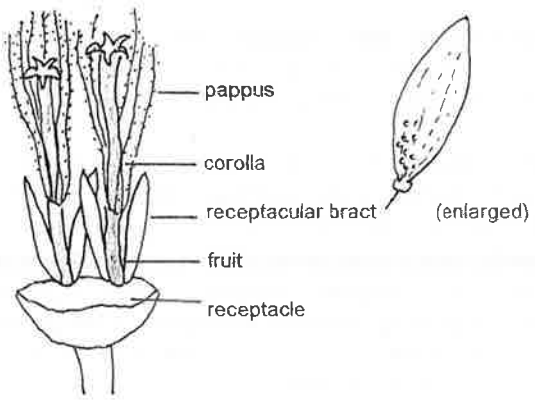
THE GENERA *CASSINIA* and *OZOTHAMNUS*

by Esma Salkin

There is a close relationship between *Cassinia* and *Ozothamnus* (formerly shrubby helichrysums) and the placement of certain species will become clearer when the revisions of the two genera are completed. A few points mentioned below may assist with identification as, in some cases, the two genera can be difficult to separate, especially when in bud.



Ozothamnus rufescens



Cassinia quinquefaria

Flowerheads (Illustration by Ailsa Campbell)

Cassinias are aromatic woody shrubs. *Ozothamnus* can be herbaceous-woody to woody shrubs but note that *Ozothamnus conditus* has a strong spicy smell. This aroma aids in the identification of this species.

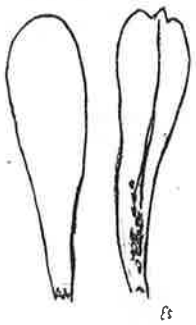
Cassinia and *Ozothamnus* are confined to Australia and New Zealand but *Ozothamnus* also has a species in New Caledonia.

Cassinia: c. 21 species, 18 endemic in Australia.
Ozothamnus: c. 53 species, 46 species and 4 subspecies endemic in Australia

Cassinia: All florets bisexual.
Ozothamnus: All florets bisexual except for the following — *O. bidwillii*, *O. obcordatus* (2 subspecies), *O. secundiflorus*, *O . thyrsoideus*, *O. vagans*, all of which have a few filiform female florets.

For beginners a simple way to separate the two genera is to note the shape of the individual flowerhead. Both genera have flowerheads with papery involucral bracts and these flowerheads are arranged in clusters. The *Cassinia* flowerhead has 4–5 rows of involucral bracts tapering to a point, opening at maturity to display the florets. The *Ozothamnus* flowerhead also has rows of involucral bracts, but the inner bract has a lamina (or blade) and when fully open resembles a small 'daisy'.

The main difference between the two genera is the presence of receptacular bracts (scales) in *Cassinia*. *Ozothamnus* species do not have receptacular bracts (with the exception of *O. scaber*, syn. *Helichrysum bilobum* subsp. *scabrum*). These bracts on the receptacle are difficult to see without magnification. Choose a fully mature *Cassinia* flowerhead. The receptacular bracts resembling inner involucral bracts are scattered among the florets (see sketch).



inner involucral bract — receptacular bract

Based on *Cassinia rugata* from *Muelleria* 7 (2), p. 142 (1990)

I will refer to *C. rugata* as it links in with a brief comment on *C. uncata*. *C. rugata* is a recently described Victorian species which was considered to be an intergeneric hybrid between *C. aculeata* and *O. rosmarinifolius*. This proved to be incorrect. It was suggested that *C. rugata* had an affinity with *C. uncata*. *C. uncata* is a variable species in character and habitat. It is distributed from the dry areas of the eastern states, to the coast, to the northern plains in Victoria, to the alpine areas. ADSG has collected *C. uncata* forms from the Snowy Mountains near Kiandra and Perisher, north of Omeo (on skeletal soils on dry ridges), the northern plains (Vic) and in the

Central Highlands of Victoria north of Licola. The Central Highland collections were from Snow Gum habitat, and at lower altitudes among tall timbers. These two latter collections had a strong aroma of 'curry'

The chief characters of the *C. uncata* group are: the upper surface of leaves is dark green and sticky (viscid), and the apex of the leaf is finely pointed and bent towards the lower surface. The *C. uncata* group are attractive small plants (c. 0.5m) with buff, pink or lemon heads. The placement of the various entities in this group will be clarified when the revision is published.

Cassinia and *Ozothamnus* are distributed throughout the continent although in the Northern Territory there is only one *Ozothamnus* species and no cassinias. The majority of *Cassinia* species are to be found in New South Wales (18 species and 2 subspecies). *Ozothamnus* species are mainly distributed in eastern states — NSW (23 species and 2 subspecies), Vic (17 species and 2 subspecies), and Tas (22 species and 3 subspecies).

The horticultural potential of *Cassinia* and *Ozothamnus* is probably a matter of personal choice, with some smaller cassinias such as *C. adunca* and *C. laevis* being eminently suited to small gardens. There is a wider choice of smaller shrubs among *Ozothamnus*.

An interesting hybrid between *C. aculeata* and *O. obcordatus* is described below by Bev Courtney. The preservation of this hybrid in a local reserve by Bev is to be highly commended.

Primary references consulted:

Burbidge, N.T., 'A Monographic Study of *Helichrysum* subgenus *Ozothamnus* (Compositae) and of Two Related Genera Formerly Included'. *Aust. J. Bot.* Vol 6 No. 3 (1958).
Harden, Gwen J. (Ed). *Flora of New South Wales*, Vol. 3.
Walsh, N.G., 'A New Species of *Cassinia* R. Br. (Asteraceae) from south-west Victoria.' *Muelleria* 7 (2): 141–145 (1990).
Wilson, Paul G., Short, P.S., and Orchard, A.E., 'Some Nomenclatural Changes in the Angianthinae and Cassiniiae (Asteraceae: Gnaphalieae)'. *Muelleria* 7 (4): 519–524 (1992).

The assistance of Mr Neville Walsh in identifying *Cassinia* spp. is gratefully acknowledged.

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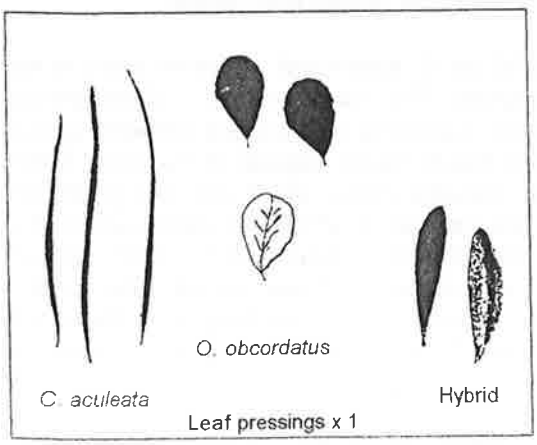
Mystery on the Mornington Peninsula

by Bev Courtney

(reprinted from NL 37, p. 51–52 [November 1993])

About three years ago, the owners of a large area of land in Frankston, Victoria, obtained a council permit to sell it for housing development. Because it was natural bushland and of very good quality, local residents objected to the granting of a permit ant the case went before an Administrative Appeals Tribunal. Unfortunately the Tribunal found in favour of the owners and a major part of it has now been bulldozed. A small section will ultimately pass into Council hands as a natural reserve. During the Appeals process, local residents interested in indigenous vegetation made many sorties with trowels and plastic bags in an effort to rescue some of the significant plant species.



One of those species which was of particular interest to me was the Grey Everlasting, *Ozothamnus obcordatus*. I had tried to grow it several times from seed and could never get it to last in my garden, so I was over-joyed to find it growing, apparently naturally, less than a kilometre away. It had been recorded from sites further down the Mornington Peninsula, but not previously in Frankston. There was only one fairly large plant, and how it came to be there, on its own, is a mystery. Even more of a mystery were several plants growing around it. Their leaves were the same shiny green with white felted undersides as *O. obcordatus* but they were narrower and more pointed. Flower-heads of *O. obcordatus* were the usual bright yellow, while those of the unknown were a paler lemon. We called it *O obcordatus* x (meaning hybrid) and we looked suspiciously at plants of *Cassinia aculeata* growing some metres away but, knowing that intergeneric hybrids were not supposed to be possible, we confessed ourselves stumped. Specimens sent to the Herbarium had them stumped too.

I collected cuttings of both species and have been growing them for a year or so. A plant of *O. obcordatus* did not last in the garden but the hybrid grew to 50cm high and had one flower-head before it too, bit the dust. I took careful note that my own plant of *Cassinia aculeata* had finished flowering before the hybrid started, and collected seed from the hybrid, confident that there had been no crossing. I didn't expect to get seedlings but germination was surprisingly good and I have several seedlings now a few centimetres high. They are starting to look very like cassinia seedlings. (Strangely, seed of my cassinia has always germinated poorly.) A fellow SGAP member did manage to collect seed from the true *O. obcordatus* and has given me a few plants. Although they are still small, they appear to be looking similar to the hybrid. I haven't been able to obtain seed from *O. obcordatus*, and continue to grow it from cuttings. It proves very difficult, with plants in pots dropping dead literally overnight, but so far I'm managing to keep it going.

I'm also trying to re-establish both species in a council reserve just near me, which has the same soil type as the original site (we don't), and so far two plants of the hybrid are doing well. *O. obcordatus* itself didn't last, but I will keep trying.

My interest in these two species surfaced again when Judy passed on a letter from Paul Wilson, of the WA Herbarium, enclosing pages from two recent articles by Breitwieser, in which it is suggested that Australian species of *Ozothamnus* are more closely related to *Cassinia* than they are to New Zealand species of *Ozothamnus*. Paul comments that he has suspected that the Australian species of typical *Ozothamnus* and *Cassinia* should be placed in the one genus. Very interesting. Could our unknown be part of the proof?

So far I haven't been able to bring myself to go back to the local bushland since it was all but destroyed, but I'm told that the area where the plants were is still intact and will eventually be included as part of the council reserve. It would be good to get an interested botanist down to have a look.
(For a short update see p. 34)

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OZOTHAMNUS (continued from NL 51, p.23–24) by **Jeff Irons**

(Reprinted from *Pentachondra* Issue 18, May 1997 with kind permission of the author.)

You can take your pick of common names for *O. thyrsoideus*. The Australians call it Sticky Everlasting, or sometimes Cascade Everlasting. Hillier's Manual uses the name Snow in Summer, which Stearn ascribes to *Cerastium tomentosum*. This shrub, which can be up to 2m high, has tiny white flower heads, each about 2mm across, in dense heads at the ends of short branchlets. These heads are so profuse that they cover the upper sides of the branches, weighing them down to give a cascade of bloom. Flowering is in July and August. Cut branches will stay white for months and make excellent floral decorations. The sticky young growth explains the common name. This species is found from the Australian Alps down to Tasmania.

Another plant which does not extend to Tasmania and which is usually called Cascade Everlasting is *O. secundiflorus*. It flowers at the same time as *O. thyrsoideus* and superficially is similar to it. However the leaves are smaller and are not sticky. I grew this from a collection at Bennison Flat in Victoria. The plants flowered in their third year, then died. The 1997 APS seed list includes seed collected in NSW which I hope will be more amenable to cultivation. Seedlings do vary, and some are much greyer than others.

O. rodwayi was introduced to Britain by Harold Comber in 1929–30 as *O. backhousii*. However there is no mention of it in either the 8th edition of Bean or the RHS Dictionary. The current name is *Ozothamnus rodwayi* Orchard. Usually a shrub less than 1m high, it is found on Tasmania's mountains between about 900–1300m, most commonly in open positions. The small white flower heads appear in summer. Their papery bracts are not very prominent. The variety *backhousii* has obovate leaves which are dark green on top, and white underneath. Gardeners will prefer var. *kingii* from N-E Tasmania, which has leaves which are felted white on their upper surfaces. Seedlings of it do vary in the amount of felting. In the north central mountains var. *oreophilus* has narrow, dark green leaves and less attractive flower heads. The variety *backhousii* has been sold in Britain. I don't know whether it is still around but the seedlings sold could not stand the winters in my wet garden, neither could they survive in Dewi Price's well drained garden. I am now trialling var. *kingii*.

O. scutellifolius is found on dry hillsides in Tasmania. Its slender branches, 4–6mm in diameter, are clad densely with white hairs. The branchlets appear to be covered with little dark green warts. In fact they are the leaves, on stalks pressed closely to the stems. Though small the flowers increase the attraction of this bizarre plant. At the branch ends they are a curious dirty colour. Little straw yellow florets are grouped in

threes or fives and are surrounded by brownish bracts, large in comparison with the leaves. All said, this is definitely a shrub for the cool glasshouse of those interested in one upmanship. It will certainly catch Show judges unawares, but I cannot imagine it ever fitting in with the AGS definition of 'hardy in the place where exhibited'.

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GERMINATION RESULTS in 1999

REPORT from LURG

by **Julie Strudwick**

Julie reports on 16/5/99: 'I found that I had some older seed of *R. chlorocephala* ssp. *rosea*, the Balladonia form of ssp. *rosea*, the hybrid between those two forms, also *R. chlorocephala* ssp. *splendida* and *R. polygalifolia*, so I treated them and sowed them. May is very late for sowing up here I feel so I put the punnets on the heat mat in the hope of hurrying things along. They were sowed between 4pm and 5pm on 6th and green shoots were showing at 4 pm on 8th — exactly 48 hours! By 9th I had green lawns and started wondering what I was going to do with them all. Subspecies *rosea* was in 4 punnets with, I'd say, about 200 seedlings in each. (I didn't actually count.) I took 2 punnets to the SGAP Shepparton meeting and gave another to J and J Plant Farm, the local nursery which supplies my potting mix. I suggested they might like to pot some up and sell them so that a few more people might be introduced to Australian daisies. I'm afraid I didn't count the seed so I don't know the exact results but some, at least, must be 100%. The results to date are set out in the table below:

Species	Origin	Treatment	Date sown	No. sown	Date of first germination	No. germinated	Comments
R. chlorocephala ssp *rosea*	R.P. garden 1998	Nil — heat mat	23/4/99	c. 50	26/4/99	12	Potted 9/5, a further 4 as at 17/5
" "	" "	Water + SW — heat mat	10/5/99	c. 100	13/5	50+ on 17/5	Still germinating
" "	J.S. '95 or '96	Water + SW	6/5/99	4 punnets thickly!!	8/5/99	+++	1 punnet held c. 350 seedlings
R. polygalifolia	J.S. '98	Nil — heat mat	23/4/99	c. 50	28/4/99	9 (at 17/5)	Still germinating
" "	J.S. '96 or '97	SISP + SW — heat mat	6/5/99	1 punnet thickly	11/5/99	1 (at 17/5)	
R. chlorocephala ssp. *rosea* (Balladonia)	J.S. 1998 punnet 1	Nil — heat mat	23/4/99	c. 100	6/5/99	12	
" "	J.S. 1998 punnet 2	Nil — heat mat	23/4/99	c. 100	29/4/99	6	
" "	J.S. '96 or '97	SISP + SW — heat mat	6/5/99	2 punnets thickly!!	9/5/99	+++	
R. chlorocephala ssp. *rosea* X Balladonia form	J.S. '96 or '97	SISP + SAISP + SW —heat mat	6/5/99	2 punnets thickly!!	8/5/99	+++	1 punnet held 360+ seedlings
R. chlorocephala ssp. *splendida*	J.S. '97	" "	6/5/99	50+	10/5/99	73 (at 17/5)	Still germinating

DORMANCY and GERMINATION
— WHAT HAVE WE LEARNT FROM THE EVERLASTINGS PROJECT?

by **Judy Barker**

The best sowing times for annuals

- In Melbourne the best sowing time is autumn. Some species, eg. *Rhodanthe collina, R. condensata, R. polyphylla, R. psammophila, R. rubella, R. sterilescens*, and *R. stuartiana* require protection in cold wet conditions. Alternatively these species may be sown in July. Germination at this time is slower. The main thing to remember is that the seedlings should be large enough to withstand the sudden very hot

temperatures to which Melbourne is prone in spring. There may be exceptions. Experience with wild seed of *R. citrina* and *R. sterilescens* suggests that these two species could have special temperature needs for germination. It might be necessary to sow in early autumn while temperatures are still warm. For example, seed collected by Jan Hall in 8/97 of *R. citrina* from Bush Bay Turn-off germinated very well when sown on 13/3/99 with SISP and GA_3 pretreatments, and even produced a few seedlings with a water soak. At this time we had reasonable rain over a week, and 27mm fell altogether. The same seed sown on 17/4/99 has produced 1 seedling only. Maureen has had a similar result. It must be remembered that we both germinate our seeds outside, and so we cannot control factors such as temperature, rainfall and day length.

- In frost-prone areas and inland areas it is probably better to sow after the frost period is over, and also when the red-legged earth mites have disappeared.

Variation in the length of the dormant period

- The length of the dormant period of seed varies according to the original habitat rather than to the genus, i.e. in general, the seed from coastal or cool temperate climates is either not dormant or is dormant for 3–4 months, while seed from semi-arid areas may be dormant for 12–18 months or more. Examples: Seed of *Chrysocephalum apiculatum* from Anglesea and Maldon will germinate after 2–3 months storage at RT. Seed of *C.eremaeum* from NT will not germinate after 8 months storage at RT.

- The length of the dormant period of seed varies according to the original habitat rather than to the species. Examples: Seed of *R. chlorocephala* ssp. *rosea* (WP 052, 16km N of Wongan Hills, WA) germinates after 3 months storage at RT with no pretreatment. Seed of *R. chlorocephala* ssp. *rosea* (WP 062, 110km E of Norseman, dwarf white form) germinates very poorly after 5 months storage at RT, and somewhat better after 19 months, but pretreatment with SISP + SW was needed to get a reasonable result. The Wongan Hills location is classified as temperate with a moderate to heavy winter rainfall, while the Norseman district is arid with winter/non-season rain.

Degrees of dormancy

We know from Delpratt (1995) that seeds from one plant will exhibit different degrees of dormancy by varying seed coat thickness or by imposing different requirements for light or temperature. In practice, a few seeds may germinate early, the majority germinate when the dormant period is mainly over, and the remainder may germinate when conditions are right the following year. We have found that when the seeds appear to be in primary dormancy none of the pretreatments we have applied will trigger dormancy. As the dormant period is drawing to a close, certain pretreatments **will** trigger germination. For example, SISP triggers good germination in *R. citrina* seed stored for 15 months at RT, SISP + SW triggers good germination in *R. chlorocephala* ssp. *splendida* seed stored at RT for 10–18 months, and GA_3 is the trigger for most species of *Schoenia* after storage at RT for 9–18 months.

Storage temperature

- Seed from coastal and cool temperate climates appears to retain viability if kept at RT for about 3 months and then stored in the fridge — either in glass jars or sealed in foil packets. Examples: *C. semipapposum* collected 3/93 at Lorne germinated very well when sown 4 years later. *R. anthemoides* collected 12/94 from Burrendong area germinated well when sown 4 years later.
- Seed from semi-arid areas needs to be stored at RT for the duration of the dormant period. We must store some seed of the same species at RT and some in the fridge for future comparative trials.
- Hanging seed on the line in plastic bags for two months over the summer appears to have had the effect of overcoming the dormant period in a percentage of the seeds sown.

Enforced Dormancy

Seeds of arid origin which have been stored at 4°C for some time do not germinate well. Seeds of arid origin which are sown in hot weather (21/2/98) do not germinate either then or over the following twelve months, whereas the same seed sown in April, May or June of the same year will germinate quite quickly. These results have probably been caused by the extremes of temperature sending the seed into a state of dormancy.

Harvested seed from cultivated crops

I had hoped that the process of harvesting seed would result in reducing the dormant period but I have now been convinced by Mark Saxon and other workers (as well as by our own results) that this is not so. The necessity for the dormant period has been imposed from inside the embryo and would therefore be very difficult to alter. Seed harvested from cultivated plants over several years, however, has been selected for its faster germination, ease of cultivation and strong growth, and does not need the triggers imposed from outside to the same extent. These triggers include optimal temperature, day length, rainfall, etc. We think it is easier to grow, and yields a higher percentage germination.

References: Delpratt, J. (1995) I've got this seed. Will it germinate? An introduction to seed and seed dormancy issues. Greening Australia Victoria, information and training day program.
Garnett, T.R. (1996) A gardener's guide to the climatic zones of Australia. The Australian Garden Journal.

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POST HARVEST SEED TREATMENT

by Mark Saxon

(Mark's article in NL 53 raised a few questions from members of the Book Committee which he answered for us by supplying the following information.)

We do stratify the seed after we harvest it. I have an old vertical freezer cabinet with wire shelving. We sew calico bags together and layer the seed — about 4Kg to a shelf. There is a 100W bulb in the bottom of the cabinet with a small fan and thermostat. I aim for between 30 to 40°C. Sometimes it would be warmer, sometimes cooler but it seems to work. We seldom have germination above 65% even so. We would then treat with GA, and then germination is routinely 80% plus.

We wet the seed and leave it for 12 hours until the pericarp is soft so I guess the seed itself may not imbibe, or at least not completely. We then dry it back and store it until we need to sow it. I'm not sure how long it would keep like this as we usually use it within a week. We really only dry it back to prevent the seed being damaged during sowing.

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Daisies in the Canberra Region – Spring/Summer 98-99

by Ros Cornish

We have had a marvellous display of daisies this year following good winter and spring rain and fairly regular summer showers and storms. I thought ADSG members might be interested to hear of the variety of daisies that we have in the region and when they flowered. Most of my observations have been during the SGAP (Canberra Region) Wednesday Walks and also on a recent trip to the Snowy Mountains.

Our harbingers of spring are always *Microseris lanceolata*. We are lucky to have a large number on our own property (in NSW) south east of Canberra. They usually produce flower stems up to 20cm tall with flowers about 2-3cm in diameter. We were surprised to find much larger plants in the alpine areas both at Mount Franklin in the ACT (Namadgi National Park) and around Charlotte Pass and Thredbo, NSW (Kosciuszko National Park). So much so, we didn't recognise them at first - they had flower stems up to our knees and the flowers were huge – at least 5cm in diameter. After pondering for a while we realised that they could only be *M lanceolata*. We begin to see the leaves appearing in August followed by flowers in September. They are well and truly finished at our place by early December but in the alpine areas they were still flowering this year in February.

By October *Craspedia variabilis* was putting on a fine display around Canberra, particularly in the various parts of the Canberra Nature Park – including Black Mountain, Mt Ainslie, Mt Majura and Mulligan's Flat. In February there were still some to be found in Kosciuszko NP as well as on the Nursery Swamp walk in Namadgi NP. Another good October daisy this season was *Calotis scabiosifolia* var *integrifolia* with its brilliant purple flowers. Interestingly, we saw a pink flowered form on the Nursery Swamp walk in February – it kept us guessing for a while until we felt the rough leaves and noticed the characteristic burr seeds. We found a Calotis that I had not seen before, *C cuneifolia*, on the side of a dirt road near Dalton (a small town near Gunning). It was flowering well in mid-January but was a bit too close to the edge of the road for my liking, destined I'm sure to die when the road is next graded.

We don't usually see a lot of *Helichrysum scorpioides* but this year was different and we saw it on a number of our walks. We even had a good number on our own block which didn't succumb to wallaby predation and hopefully produced some seed. We are now (February) seeing *Helichrysum rutidolepis* in flower. The plants we saw in the alpine areas (both Kosciusko and Namadgi NPs) were quite low and had silvery foliage whereas those at lower altitudes seemed taller and greener with finer foliage.

Our three *Podolepis* species outdid themselves this season and some were still in full flower in the alpine areas and lower parts of Namadgi NP in mid-February. *Podolepis jaceoides* grows not far from us and its flower stalks were apparent in October and it was flowering well by November. We saw a few in flower on Mt Franklin in late January but they were surpassed by the display put on by *P robusta* on the same walk. My favourite though is *P hierarcioides* as, to me, it has the best features of the other two – tall, thin stems of *P jaceoides* and multiple flower heads of *P robusta*. In mid February we saw some along the Boboyan Road and on the Nursery Swamp walk (both in Namadgi NP) which had more than ten flowers on each stem. In early February *P hierarcioides* was just beginning to bloom on the Thredbo Riverside walk.

Our *Brachyscome* species have also been prolific this year. In mid November we walked on Mt Majura - one of the many Nature Reserves on the hills within Canberra. We saw a white daisy which was common on part of the walk and some of our number thought it was introduced – only because there was a lot of it and it looked so nice with its quite big flowers. John and I managed to identify it as *B diversifolia* and were pleased to have this confirmed by Judy Barker. In early February we found it again above the tree line at the top of Mt Aggie (Namadgi NP) on slate rock shelves - very exposed but flowering well. *B spathulata* is an early bloomer on our block – October. Since then we have seen it in flower on just about every walk we've done right through to mid-February.

My beloved *B aculeata* has shown up in a number of locations this season. I first found it close to home on the Captains Flat Road which is not really where it should be as it seems to prefer higher altitudes (Judy and Esma confirmed the identification). It flowers here from November until the end of summer. In the higher areas we found it flowering in the Brindabella Ranges (Namadgi NP) on Mt Franklin and Mt Aggie and others reported it on Mt Ginini. In Kosciuszko NP there was also a good display. As mentioned earlier for *M. lanceolata*, we found the flowers of *B aculeata* and *B spathulata* to be much larger at higher altitudes than those closer to home.

B decipiens, B scapigera and *B graminea* have been seen more plentifully this season in the wetter areas of some of our walks, eg Nursery Swamp and Boboyan Forest while in Kosciuszko NP we also saw *B nivalis*. It looked great among *Celmisia sp, Leucochrysum albicans* var *alpinum* and an orange *Craspedia*.

We are starting to see the second flush of flowers of *L albicans* ssp *albicans* var *tricolor* and *B rigidula* on our block and along the nearby roadsides. They first appeared in October but stop in the very hot weather. We usually see them again following rain towards the end of summer.

Bracteantha viscosa and *Bracteantha subundulata* have had a good season. We have found them to be widespread through Namadgi and Kosciuszko NPs with *B viscosa* flowering first and *B subundulata* only now making its appearance in late summer. *B viscosa* is present on our block and is common throughout our area. On the King's Highway as it climbs out of Queanbeyan (NSW) on the way to the coast there is a whole hillside covered in it which was quite striking in mid-summer.

Our various forms of *Chrysocephalum apiculatum* (small grey, tall grey, tall green and 'Captain's Flat' form) looked good when first flowering in late spring (November) but quickly faded in the hot weather. *C semipapposum* appears to have lasted longer and some in sheltered areas such as the Molonglo Gorge (near Queanbeyan) are still very showy. The form we mainly see here has very fine green foliage. I am pleased to find that our one plant has reproduced successfully over the last few years and we now have about six in various locations downwind from the parent.

Cassinia longifolia has produced very large flower heads this year while *C quinquefaria* seems to be taking its time to flower. In previous years it has been in full flower by the end of January but the flowers are only just becoming apparent this year in mid-February. *C aculeata*, our other main *Cassinia*, seemed to have a fairly short season this year although it was still flowering well on the Nursery Swamp walk in mid-February.

Finally, I must mention *Rhodanthe anthemoides*. I was not very familiar with this plant until I found it in the Molonglo Gorge a few years ago. Revisiting the location recently this year I found many more plants than previously which was pleasing. On our walk to Mt Franklin and Mt Aggie we were overwhelmed by the

number of *R. anthemoides* that we found, mainly above the tree line. There were great white swathes of them in full bloom. Judy has the photo to prove it.

(With grateful thanks to husband John and Barrie Hadlow for helping with identification and, as fellow ADSG members, sharing the same enthusiasm when confronted with a daisy.)

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FIELD TRIP to FALLS CREEK — February 7th–14th by Esma Salkin

Three ADSG members, Joy Cook, Gloria Thomlinson and I, and spouses, Neal Greig and Alf Salkin, spent a very enjoyable stay at St Trinians as guests of Neal and Joy. At breakfast the view of Spion Kopje and glimpses of the sky through Snow Gums gave us a hint of what the day promised — for us a week of fine weather with a daytime temperature range of 17–23°C.

Day 1. Rocky Knobs West to search for *Brachyscome nivalis*: We scrambled through shrubbery, over granite boulders, and twined among malleed Snow Gums to a rocky outcrop overlooking Rocky Valley Dam. We found a few plants of *B. nivalis* but no flowers or seed. We retraced our steps of 1995 off the ridge down through shrubbery, stretching less agile joints, to a *Richea*-lined creek by an old snow pole line. A slow ascent to the top where the cars were parked culminated in one of the party biting the dust. Lesson 1 — keep boot laces tied no matter how far it seems one has to bend. Lesson 2 — check the First Aid Kit for pads to mop up blood. The day finished with lunch at Pretty Valley Dam, a visit to the summit of Mt McKay with *B. rigidula* massed in flower (including a pink form), and finally a sortie on Ruined Castle to find more *B. nivalis*.

Day 2. Wallace Hut and beyond: This was a flattish easy walk through Snow Gum and along the Aqueduct. *Bossiaea, Hovea, Dianella tasmanica, Olearia frostii, O. phlogopappa* varieties and a scattering of stylidiums was prevalent in the understorey. The day finished early, with heads down, plodding through light rain.

Day 3. Rocky Knobs East: After taking a GPS reading at the Bogong High Plains Road near Mt Cope, we headed south and slightly west to Rocky Knobs above Rocky Valley Dam. Stunted Snow Gum grew on the rocky outcrops and this was the habitat of *Brachyscome nivalis*. On the flats among *Poa* spp. were mixed populations of *Erigeron nitidus* and *E. bellidioides*. We sighted the occasional *B. spathulata*, but *B. decipiens* in flower was the most common brachyscome noticed on the high plains. We ate lunch atop a Rocky Knob above the dam. Our guide, Neal, retraced our steps through *Hovea, Bossiaea, Olearia* and the strongly scented *Prostanthera cuneata*, and picked up Alf's waterproof jacket, inadvertently jettisoned on the climb up or the outward climb. Back at the roadway we journeyed to Strawberry Hill Picnic Spot where there were good displays of *Celmisia, B. spathulata* and *B. decipiens*. The latter brachyscomes were <u>robust</u> with large leaves 10–12cm long and 3–4cm wide, and flowering stems to 25cm.

Day 4. A car trek, Falls Creek–Omeo–Mt Hotham and back to Falls Creek via Tawonga Gap and Mt Beauty: This easy day was a very profitable one. Our progress was slow, 2½ hours to travel 25km. At our first stop we looked at an Exclusive Zone, a fenced area to exclude cattle and ? humans. Except for a drainage slope which was still eroded, foliage cover appeared to be excellent. Outside the fence was one lone *Rhodanthe anthemoides* near thickets of *Ozothamnus hookeri* and *Olearia frostii*.

As we descended from the high plains the Snow Gums were no longer stunted but standing tall. Here we had our first sighting of *Brachyscome aculeata*. At Raspberry Hill Picnic Area the understorey was varied with the broad-leafed *Celmisia* sp. in huge dense populations. At the base of the trees there were *Olearia phlogopappa* var. *phlogopappa*, var. *flavescens*, and var. *subrepanda*. There were also a few bushes of a low compact *Cassinia* sp. (c. 0.3m x 0.3m). This species reminded me of the *Cassinia* sp. growing in the Kosciusko N.P. on the Snowy River and dominant in the Three Mile Dam area.

Buckety Plain is a delightful open grassy plain with *Brachyscome scapigera, B. spathulata* and *B. aculeata*. We stopped for morning tea at Trapyard Gap. *Olearia megalophylla* was thick in the understorey (mainly new seedlings). Here the dominant tree was still Snow Gum, but as tall as wet sclerophyll forest trees.

Our next major step was to examine integrated colonies of the grey-leafed and fine-leafed bright green form of *Chrysocephalum semipapposum*. At the base of the high cliff I gathered a few seed from *Calotis*

scabiosifolia var. *integrifolia* but to this writer's delight I nearly trod on a brachyscome which seems to belong to the *B. angustifolia* complex (see *Australian Brachyscomes, B. formosa*, especially *B.* aff. *formosa* Entity 2, pp. 112–117 and p. 252). It was a suckering perennial, the clump between 10–15cm wide, and the rays of the flowerhead white. There were no mature seed in the seed head, a feature of some in this complex. I suspect this was a species we were searching for when compiling material for *Australian Brachyscomes*. Two recorded sites of species were included under the *B. angustifolia* complex, one near Benambra (1 mile SSW of Mt Prendergast) and the other on the Omeo road a few kilometres ahead of us. At both sites roadworks had probably removed recorded populations of this brachyscome. The Herbarium Sheet of the species at the Omeo road site recorded this species as *B. petrophila* Entity 1 or 2. A specimen was collected for the National Herbarium and two cuttings for pollination trials. Maybe if mature seed eventuates we will be able to identify this species.

On the Omeo road the verges were clothed with *Bracteantha viscosa*, and the high ridges with *Brachyscome rigidula* (lowland form) and patches of *Leptorhynchos squamatus*. South of the Bundarra River Crossing there were thickets of *Cassinia uncata*, plenty of *Leucochrysum albicans* ssp. *albicans* var. *albicans* and many trees of *Banksia canei*.

Down in the Valley we could appreciate the heat Melbourne was experiencing. At afternoon tea in Omeo the wise sat near an open doorway in preference to the air conditioners. We were now well behind schedule so hurried on to Mt Hotham. The summit as usual was covered with mauve *Brachyscome rigidula*, and further on at Baldypoint there were myriads of *Leucochrysum albicans* ssp. *albicans* var. *albicans* with plenty of seed free of insect damage. Among the *Leucochrysum* there were good forms of *Chrysocephalum semipapposum* but no seed. The day finished with a mandatory stop at Tawonga with mighty Bogong filling the sky.

Day 5. Mt Jim via Pretty Valley and Tawonga Huts Road: After a slow climb up the road we turned east along a shallow ridge towards Mt Jim. *Erigeron* species and *Brachyscome decipiens* were again common components of the ground flora. A few plants of *B. rigidula* and *B. spathulata* were scattered among rocks on low outcrops. About halfway across the plain we came across peaty hollows, the habitat of *B. tadgellii*. Most of these plants had basal tufts of entire leaves. Only rarely did we find tufts with leaves that were lobed. We lunched among Snow Gums on a rocky outcrop facing a vertical cliff of basalt blocks which became the topic for lunchtime conversation. Scattered among granite boulders where we were sitting was *B. nivalis*.

We walked back to our starting point via a different route among shrubbery and welcome grassland interstices. *B. tadgellii* sites on the plains showed little evidence of trampling by cattle and brumbies but, as drainage consolidated into streams on slopes, damage to vegetation at water points was easily noticed. *Olearia algida* in seed, *Prostanthera cuneata, Hovea* and *Bossiaea* were the main shrubs encountered.

Day 6. Healthy Spur Track–Langford East Track: Conditions on the Healthy Spur Tk were much drier than in 1995, showing little damage to vegetation by horse trail riders. There were few species in flower, but towards the end of our 4.5km stretch Joy spotted a lone *Leucochrysum albicans* ssp. *alpinum*. There were a few more isolated plants in roadside vegetation. Normally this plant grows at higher altitudes. Mt Nelse is 1800m high and is covered with this species.

After a brief chat with the Ranger and volunteers manhandling basalt blocks to repair an eroded creek, we set off towards the Langford East Tk. This is a charming secluded track among Snow Gums and associated vegetation. As we entered the track there were gasps of delight and clicking of camera shutters to capture the golden display of *Bracteantha subundulata*. Lunch was above a small spring edged with the green and orange of mosses endemic to Bogong. Conversation had lapsed as we listened to the croaks of frogs, or were we just hungry? Back on the track there were signs that horse trails passed this way. Is there no track sacred to walkers? Do we continually have to dodge horse dung? The horse riders caught up with us later. One sprightly beast had to be held on a tight rein, and 'Doesn't seem to like you' was the comment. The feeling was reciprocated, but I said naught, not being willing to upset the beast further. Not long after this unpleasant encounter, we came on a deep orange form of *B. subundulata*.

Our farewell to Falls Creek was a return to a *Brachyscome nivalis* site at the base of basalt cliffs in the vicinity of Mt McKay for specimens and seed. All this chasing after *B. nivalis* etc. was to attempt to solve the mystery of Maureen's atypical form of this species collected at the end of January 1995. Two years ago I visited the Falls Creek sites but was too early for seed and this year too late. The ball's in your court, Maureen.

Thanks to our patient guide, who never lost us. ADSG members are ideal companions on Field Trips. Gloria as usual was a keen observer and dedicated seed collector. This writer is grateful for the assistance of all in the party. As the years pass I seem to be less organised in the field, coping with seed, Herbarium specimens and Field Notes, etc.

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SEED COLLECTION and CLEANING

by Jeff Irons

You asked for seed collection details on *Bracteantha*. My method with cultivated plants is to wait till the head begins to 'rise'. It is then collected and placed in a paper bag, which is placed in my garden shed (temperatures up to 80° F). When sufficient material has been obtained I clean the lot. Much seed has fallen away from its pappus. The remainder is rubbed between gloved hands. This separates the cypselas. Winnowing is carried out in a glass Petri dish — plastic is not so satisfactory. I blow across the dish while giving it an oscillatory motion.

The same rubbing and winnowing technique was used for *Calomeria*. Mature seed was collected by 'stroking' the tassels. This was done about once a week. Tassels taken before maturity never ripened. If possible I always winnow, even when seed has been separated by sieving or 'rolling'. Winnowing enables one to 'blow-away' infertile seed.

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NON-MEMBERS' REPORTS

Doris Gunn of Ocean Grove (Vic) writes on 17/3/99: 'Here is a little item which just might be of interest. I bought three of these plants (*Vittadinia cuneata*), and put two in a basket and one in the garden. They have all done very well. Rather insignificant little blue flowers but great show of fluffy little white seed heads which have lasted for many weeks. The plant source was Leopold railway line. Note the nursery — Echidna Plants (875 Banks Road, Ocean Grove). It has a large collection of local plants and the owners are enthusiastic.

John Clark of Lover's Leap Nursery at Elaine (Vic) has told us of a seed company new to us. It is Kimseed, Aust. Revegetation Corporation Ltd, 42 Sarich Court, Osborne Park, WA, 6017.
Tel: (08) 9446 4377. Fax: (08) 9446 3444.

MEMBERS' REPORTS

In February **Judy Barker** of Hawthorn (Vic) noted the tips of some stems of *Chrysocephalum baxteri* and *Rhodanthe anthemoides* (branched form) were swollen. She nipped them off with a pair of scissors and found a black decapitated (or de-tailed) mass in the cavity. She should have taken more care and time to try to identify the insect. Is it possible that this is the cause of so many *C. baxteri* heads exhibiting predator attack long before the seed is mature?

Maree Goods of Horsham (Vic) writes on 16/3/99: 'The *Rhodanthe* seedlings you gave me last September were a highlight of our Open Garden in the first weekend of October, and people wanted to know where they could get seed. I informed them that it was a trial plot and probably it would be some time before seed would be available commercially.

Our garden has suffered somewhat due to another long hot dry summer. Once again we received less than 12 inches (305mm) of rain for the year, the third year in succession. Not only the weather, but also the lack of attention did not help. I have lost a lot of brachyscomes, even several multifidas which are normally "good doers" here. One *Brachyscome* that is thriving is *B. basaltica* var. *gracilis* which I obtained from the side of the road between Marnoo and St Arnaud in November 1996. The plants were immersed in water halfway along the stems. I had a bit of trouble getting a piece. I plan to propagate more of them for the garden. My *Ixiolaena brevicompta* is once again a mass of flowers — another good doer.'

Gloria Thomlinson of Shepparton (Vic) writes on 24/3/99: 'The loveliest thing has happened. Two willy wag-tails have taken to visiting the garden this last week, bringing with them two blue wrens. They seem like protectors — feeding together, snip-snap, flipping in and around the last of this year's *Bracteantha bracteata* plants. I daren't pull them out yet lest they don't come.'

Kym Sparshott of Bellbird Park (Qld) writes on 29/3/99: 'We had great success with the seed that you supplied this time last year. Much of it went towards making a magnificent display in my parents' garden in Toowoomba. Peter and I and other family members usually help them out in their garden. Last year we all put in a big effort and entered the garden in the Toowoomba Carnival of Flowers in September. They won first prize in both the Native Garden section and the Waterwise section. We are planning to enter again this year (for the final time) — it is the 50th Anniversary of the Carnival this year. After this year's Carnival we intend to write an article/s for the newsletter and hopefully for *Australian Plants*, as it would be nice to show others some of the photos that we took in the garden last year and, if all goes to plan, we should get some more good photos this year. Last year we mainly had the more commonly grown species of daisies, such as *Rhodanthe chlorocephala* ssp. *rosea*, *R. manglesii*, *R. anthemoides*, *Bracteantha bracteata*, *Helichrysum elatum* and *Brachyscome iberidifolia*, as well as *Brachyscome* sp. Darling Downs, *B. melanocarpa* and *B.* sp. aff. *curvicarpa*, so this year I would like to have some more unusual species. Even the more "common" ones last year generated a lot of interest and comments from garden visitors though!

If any ADSG members are in Toowoomba in the last full week of September (the week of the Carnival of Flowers), please call in and say hullo at 488 Greenwattle St.

The e-mail address is: sparshot@powerup.com.au .'

(Editor's note: Congratulations to you and the family for those excellent results! It is marvellous to hear of Australian plants receiving acclamation — especially daisies, and it would be very pleasing to have more unusual species under the public eye. Kym and Peter collected seed of some of the species she mentioned in her letter, and sent it to us. ... Judy.)

Barrie Hadlow of Theodore (ACT) writes on 10/4/99: 'I am enclosing some seed — one of our three plants of *Olearia elliptica* flowered and fruited so well (and continues to do so — now over two months) that I have sent seed to the Group . The other is *O. megalophylla* which I collected on a Range walk in February. It is a fairly cold/mountain-loving species but perhaps one that is adaptable? The attractive long narrow leaves (oblong or lanceolate) have a dense, pale biscuit-coloured tomentum on the lower surface. Burbidge and Gray (1970) suggest that this species will reach only 1 metre in height — so it is not a large daisy.

Finally, seed of *Vittadinia muelleri* — a delightful small 'daisy' of this area with lilac-mauve flowers in abundance. It is now setting seed (attractive in itself at this stage of development).'

Corinne Hampel of Murray Bridge (SA) writes on 6/5/99: 'We arrived home (after the trip to Melbourne in January) to be faced with the loss of about 1000 plants because our water meter had sprung a leak and we had had heat wave weather for over a week. Extremely disappointing as most were for the Autumn Plant Sale. The Parrakie Plant Sale, held at Geranium, was last weekend. Not as many people as we would have liked but it is still so dry after a very early start to the season in early March. All the feed which grew has now dried off from frost and lack of rain. This year will be a good one to test the frost hardiness of many plants.

I was thrilled with the results from all the *Chrysocephalum semipapposum* forms you sent to me, and the dwarf *Bracteantha bracteata*.'

John Armstrong of Vermont (Vic) provided this recipe for 'John's Dip' after public demand had reached unprecedented heights:

1 medium onion (or half an onion or a few spring onions)
1/2 oz parsley
salt and pepper
1 teasp. moutarde de Dijon
1 teasp. sugar
1 soft-boiled egg (5 minutes)
6 tablespoons olive oil (I used 4)
1 tablespoons white vinegar
1 tablespoon lemon juice

Place all solid ingredients in blender, then add oil, juice and vinegar. Very good for raw or cooked vegies.

Pat Shaw of Macgregor (Qld) reported by phone on 16/5/99 that she was growing a very pretty, pale apricot form of *Bracteantha bracteata* that had been bought originally from a Victorian nursery. It is about 0.5m wide and quite low-growing. In her vicinity she has seen a garden with masses of the suckering form of *Chrysocephalum* formerly known as *Helichrysum ramosissimum*. Pat says it looks stunning. The *Calomeria amaranthoides* seed from Jeff Irons has begun to germinate. She now has 4 little seedlings which are taking their time to increase in size.

Margery Stutchbury of Bundaberg (Qld) writes of her seed sowings on 22/5/99:
'Seed planted on 25/4/99: *Rhodanthe chlorocephala* — good germination from 8/5/99
R. manglesii — " " " "
R. humboldtiana — have not found any germinating (22/5/99)
Schoenia filifolia — good germination within a week (planted 27/4/99)
Brachyscome iberidifolia — (sown (1/5/99) very good germination by 8/5/99

All the above were planted directly into the garden, with *R. chlorocephala* mass planted and the other rhodanthes in groups, the schoenias on borders and in pockets, and the brachyscomes around the edges. *R. anthemoides* (unbranched) is coming up in hundreds around about ten plants from last year. These I have trimmed back, and they all look good again. I have other seed to plant but I feel it will have to wait till next year when I am also keen to try some new daisies. I have again planted on Anzac Day. There were some self-sown *R. chlorocephala* which appeared about a month earlier and are now about 12cm (5") tall and looking good. I considered planting earlier this year but it always seems to be too hot (apart from the fact that it takes a few weeks of thinking "I must put the seed in" before I actually get it done). This year our seasons have been more like what we used to get years ago — and we have had rain reasonably often, almost like the monsoonal rains we used to get in the sixties. Instead of the grass crackling underfoot, it actually grew in the summer and we had to mow!!!'

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SNIPPETS

- Jeff Irons queried Alan Titchmarsh about the flowers of *Ozothamnus ledifolius* smelling of stewed prunes. The reply from Alan's assistant, Angela Glass, was ... 'Alan says that it is the faded flowers/seed heads that smell on the plant.' The Editor would still like to know how members feel about the 'stewed prunes' Alan described. Perhaps the smell differs in Australia.

- An 'Animal Repellent' recipe appeared in *Small Talk* May/June 1998 published by the Land Management Program and reproduced by Brian Fopp in the ASGAP Newsletter No. 23. Brian included a report from Margaret Leslie that this repellent had been painted on 300 Tasmanian Blackwood trees and they had never been touched by kangaroos since that time. The recipe is — beat together 5 eggs mixed with 600ml water and 150ml of acrylic paint.

- Gwen Elliott generously presented ADSG with 2 sample bottles of 'Regen' 2000 Smokemaster liquid — each containing 100ml. She had received it from Keith Johnson of Technica Pty Ltd (Tel. 03 9720 7705). Keith advised that seeds could either be soaked for 24 hours in a solution diluted 1 in 10 with water before sowing or seed could be sown and sprayed directly with the concentrated solution at a rate of 100ml to 1 sq. metre of seed. I am doing comparative trials with *R. corymbiflora* and *R. chlorocephala* ssp. *splendida* using pretreatments of water, SISP, diluted Regen and concentrated Regen. In the case of *splendida* I will do extra tests with the addition of Soil Wetter. Keith says the Regen is an aqueous concentrate of the Kings Park Smoke Water, ie the particles have been filtered out, and a green dye has been added. A dry version of Smokemaster which can be sown direct with the seed is being produced for sale fairly soon. Keith will be happy for us to trial this too. So far I can report that the seed sank in the diluted solution long before the 24 hours was up, and that the concentrated solution was quite hard to spray since it was relatively thick.

  Gwen also presented us with a can of Golden Everlastings from the Wild Australia range. This can contains approx. 2300 seeds of *Schoenia filifolia* ssp. *filifolia* and ssp. *subulifolia*. Julie Strudwick and Gloria Thomlinson are testing it for us, and will report on their success in due course.

- Congratulations to Julie Strudwick who has been invited by Cherree Densley to produce a list of the name changes that have taken place in the Victorian flora. It will be done meticulously.

MEMBERS' NEWS

FORTHCOMING GROUP (or Friends') EVENTS

1. **DAISY PLANT SALE** — to be held on **Saturday 2nd/ Sunday 3rd OCTOBER** in **Peg McAllister's garden**

As mentioned in the last Newsletter, we hope to have for sale our usual range of daisies and also rare plants such as the ones that Peg grows in her garden. This sale will be held on the weekend following Peg's Open Garden weekend. If members need accommodation please let us know in good time.

2. **OPEN GARDENS on SEPTEMBER 25th and 26th.**

- Peg McAllister's garden (address above).
- John Armstrong's garden at 25 Grove Rd, Vermont.
- Bev Hansen's garden at Warrandyte.

3. **OVERNIGHT TRIP to the BLACK RANGE on MONDAY 25th / TUESDAY 26th OCTOBER.**

We plan to meet at the Great Western Hotel at 11.00 am on Monday, book in, and then Peg will take us to see Neil and Jane Marriott's property, where Peg says Neil has done wonders in the way of planning and planting. We will have our BYO lunch at the Marriott's, and then we will proceed to Greg and Louise Johnson's property in Black Range Road.

This property has a Trust for Nature Covenant on it which gives it permanent protection under the Victorian Conservation Trust Act 1972. On the certificate presented to Greg and Louise it states: 'This superb area of open grassy woodland contains the richest ground flora of the entire Black Range granite belt. The woodland is dominated by Scentbark, Yellow Box, and Red Gum on several wetter areas. The profuse ground flora is dominated by numerous species of native grasses, including Kangaroo Grass, Wallaby Grasses, and Spear Grasses. Native lilies, orchids, Yam Daisies and Matted Bush Peas occur in vast numbers. There are likely to be a number of rare and threatened species present. Wildlife is abundant, with an especially high diversity of birds.'

In due course we will return to the hotel for a counter tea. Next day we will meet at Maree and Graham Goods' home at 10.00am. Their lovely garden was in the Open Garden Scheme last year but Maree has warned us that she has had little time to spend on it this year. Maree will provide tea and coffee and we can have another BYO lunch before going home.

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MAY MEETING REPORT

Seventeen members were present for the meeting on 1st May. This was very pleasing as it included a record number of country members in my time as leader. Four spouses and our speaker arrived for pre-dinner drinks and nibbles. Dinner was the usual beautiful set of casseroles, salads and desserts prepared by the Melbourne members and served by our caterer daughter, Elizabeth (known as Ib), and her old school friend, Sandy Clendinnen. I am extremely grateful for all the help so generously given by all those involved.

The meeting began with a talk on the related genera *Cassinia* and *Ozothamnus* delivered by Esma Salkin. Much research had gone into this talk and we all enjoyed it. Esma had been suffering from an infection for a couple of weeks but still battled through bravely and managed to make herself heard. This talk appears on pp. 22–23 of this newsletter.

Bev Courtney then followed with the description and history of a plant found in a Frankston Reserve which is thought to be a hybrid between *Cassinia aculeata* and *Ozothamnus obcordatus*. Members were impressed with the dried specimens she displayed to illustrate the probable parents and the offspring. This year the flower-heads of the hybrid appeared to be a shining pinkish brown, a colour Bev had not often observed before but she thinks that may have been due to the fact that she had not looked in the right place.

Esma, Maureen, Gloria, Julie and Judy had brought dried and fresh specimens for display. They made an attractive array. Members chose their favourites from the two genera.

Species chosen included:

Ozothamnus adnatus (for the neat foliage),
O. diosmifolius (for the neat arrangement of heads, particularly the pink form),
O. obcordatus (for the bright colour),
Cassinia subtropica and *C. quinquefaria* (for the filminess of the flowers when dried as well as fresh, and for the change of appearance depending on when the stems were picked for drying),
C. laevis (for its delicate character)
C. longifolia (for its clean, crisp appearance)

Julie had brought a lovely bunch of daisies for Show and Tell, among them the pretty mauve-pink form of *Olearia ramulosa* from the Brisbane Ranges, *Calocephalus citreus* on long stems, *Helichrysum rutidolepis*, *Leucochrysum albicans* still in flower, and *Olearia elliptica* with very small flowers The latter was at the end of its long flowering period. Julie also brought a specimen of *Pluchea dentex* with its interesting pink heads.

Maureen brought a pleasing form of *Chrysocephalum apiculatum* which might have been a hybrid, and *Ixiolaena supina* which is an excellent choice for seaside gardens. It always reminds us of Beth Armstrong because she first gave it to us. Other species from Maureen were the delicate *Leptorhynchos tenuifolius* and the long-flowering *Brachyscome ascendens*.

Judy had a small vase of *Brachyscome multifida* 'Peg's Large' which seems to flower for twelve months. This prompted Julie to mention that her white form of *B. multifida* from Blackwood (Vic) was throwing mauve heads. Although we are all familiar with the var. *multifida* form that produces white flower-heads, none of us had seen mauve heads on the Blackwood form.

Progress in the Everlastings Project was outlined by the co-ordinators:

- Joy Greig has written drafts for all the *Waitzia* species, and has sown seed of all the species she has been able to gather. We were astounded to see that she had little lawns in her punnets, even of our most recent acquisition, *W. podolepis*. It had come up in about 4 days she assured her amazed audience. Obviously if it has a dormant period, it is a short one of no more than 4–5 months.
- Bev has been extremely busy with her new house and with planting up her new 1 hectare block but she had managed to write up a few of the species for which she is responsible.
- Natalie has written drafts of all the *Hyalosperma* species, and is struggling with the best method of writing out the keys so that we can follow her example.
- Judy has written drafts of all the *Rhodanthe* species we have been able to collect. *R. corymbosa* has obliged by germinating this year, and so its dormant period is also not longer than 4 months. Unhappily there are still ten species outstanding!

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CHRISTINA FLANN

Our speaker for the evening was Christina Flann who had been awarded the inaugural Jim Willis studentship. For nine months she worked at the National Herbarium of Victoria under the guidance of Neville Walsh on the taxonomy of the entity that was known as *Bracteantha* sp. aff. *subundulata*. ADSG members knew the entity as the 'Dam Daisy' from the writings of John Clark on the subject of the daisies in his dam. Christina gave us a wonderful presentation of how she measured just about every character of all the collections in the herbaria in Australia. The final result was that a new species of *Bracteantha* was erected, *B. palustris* — a specific epithet to commemorate the habitat of this new species. She later wrote up her work in *Muelleria* Vol. 11 (1998).

Subsequently Christina began work on the taxonomy of *Leptorhynchos squamatus*. The same rigorous measurements were made of herbarium specimens. In this case, Christina travelled to Perth to work with Paul Wilson for a time because most of the specimens were assembled there for Paul, who is working on the revision of *Leptorhynchos*. Now Christina is writing up her work. We look forward to reading of the result in the future. I think Jim would have been delighted with Christina and with her results.

We enjoyed this presentation of the work of a taxonomist very much. Members were deeply impressed with the amount of work that must be done before any tampering with names takes place. If they had formed the impression that alterations were made on a whim of the revising taxonomist, they were swiftly disabused.

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Sunday Expedition

John Armstrong had arranged a trip to Cranbourne RBG for the Group on Sunday. We received royal treatment. Mark Gallon, the Project Manager for the very large project that has been planned, had given up his Sunday sleep-in to provide tea and coffee for morning tea (and later lunch) of a very high standard. Ngaire cooked a slice, so we were able to provide something for Mark too. He gave us a most interesting talk on the plans for the first stage of this vast undertaking which should be finished in 2002. It is expected that about 180,000 people will visit per year. Mark then took us to see how the first stage was progressing. John showed us over the Friends' nursery, and we bought some plants. After lunch we were ferried around the rest of the park in style in large park vehicles. Thank you, Mark and John.

We rounded off the afternoon with a visit to Bev Courtney's block, where we saw much of interest in the indigenous plants on the block, and the extremely new house, into which Bev and Alan had not yet moved. Thank you too, Bev.

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SEED DONORS: Thank you to Judy Barker, Ros Cornish, Christina Leiblich, Marilyn Gray (of Karwarra Australian Native Garden), Joy Greig, Barrie Hadlow, Ray Purchase, Esma Salkin, Pat Shaw, Mark Saxon, Kym and Peter Sparshott, Gloria Thomlinson.

SEED BANK

ADDITIONS — Garden and Commercial Seed

Bracteantha bracteata (white but different, yellow but not lemon and not gold).
Chrysocephalum semipapposum.
Olearia elliptica. Ozothamnus diosmifolius (pink buds, white flower-heads).
Rhodanthe chlorocephala ssp. *rosea* (frilly bracts)*, *manglesii* (white)*

DELETIONS

Anemocarpa podolepideum, Calotis scabiosifolia, Erymophyllum tenellum, Minuria integerrima.

ADDITIONS — Provenance

Brachyscome rigidula (Falls Ck, Vic, 2/99; white form — Omeo Hwy, 2/99; Mt Hotham, 2/99), *scapigera* (Snowy Mtns, NSW, 2/97; Central Highlands, Vic, 3/99), *spathulata* (Falls Ck, 2/99; Central Highlands, Vic, 3/99), *whitei* (Cunnamulla, Qld, 9/98).
Calotis scabiosifolia var. *integrifolia* (Falls Ck, Vic, 2/99).
Cassinia aculeata (Central Highlands, Vic, 3/99, Gobur, Vic, 3/99), sp. (Longwood, Vic).
Celmisia sp. (Central Highlands, Vic, 3/99).
Chrysocephalum apiculatum (Carpie Puntha, SA, ; E of Kimba, SA), *semipapposum* (Mt Hotham, 2/99; Central Highlands, 3/99).
Erigeron bellidioides (Falls Ck, Vic, 2/99), *nitidus* (Falls Ck, 2/99). *Erymophyllum glossanthus* (WA, 9/97).
Ixiolaena leptolepis/tomentosa (Barham–Swan Hill, 4/99).
Olearia frostii, (Falls Ck, 2/99), *megalophylla* (Brindabella Ranges, ACT, 10/2/99), sp. (Apsley Falls, NSW, 4/99).
Ozothamnus hookeri (Central Highlands, Vic, 3/99).
Rhodanthe polygalifolia (Cortlinye, SA)*.
Vittadinia muelleri (Tuggeranong Hill, ACT, 10/4/99).

DELETIONS

Brachyscome aff. *campylocarpa, ciliaris* (Enngonia, Caiguna, Cape Arid, Fraser Ra, Norseman), aff. *ciliocarpa, radicans, smithwhitei, tadgellii*, aff. *tadgellii, tatei.*
Calotis multicaulis.
Lawrencella davenportii. Minuria cunninghamii, integerrima. Podolepis robusta.
Rhodanthe anthemoides, citrina, collina, corymbiflora, floribunda, haigii, laevis, microglossa, polygalifolia, pygmaea, stuartiana, tietkensii.
Waitzia acuminata.

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SUBSCRIPTIONS.

Subscriptions are now $10.00 per year for Australian members and $20.00 per year for overseas members. FEES WERE DUE ON 30th JUNE 1999.

For the members who have not yet paid their 99/2000 subscriptions, a red cross in the box is the second and final reminder. Cheques should be made payable to the Australian Daisy Study Group and forwarded to Judy Barker or Bev Courtney (addresses on p. 19).

NEWSLETTER DEADLINE for NL 55 is SEPTEMBER 30th. Thank you to all those members and others who have contributed to the newsletters this financial year. Your editor loves to hear from you. We are especially grateful to the illustrators, Gloria Thomlinson, Ailsa Hamilton and the Salkins, for the beautiful drawings which add so much to the descriptions.