

ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTSTHE AUSTRALIAN DAISY STUDY GROUP NEWSLETTER NO. 23

Dear Members,

I always enjoy the Christmas break. All is quiet and relaxed, and I have time to pursue activities reluctantly put aside over past months but, come the end of January, I'm revived and busy planning "daisy matters".

I've had a couple of trips to the Baw Baw plateau to satisfy a personal whim about Brachyscome obovata and was delighted with the fine display of Celmisia asteliifolia, some up to half a metre high.

It's almost time to sow seeds again. Olearias have already been sown, germinated and potted on, as this seed needs to be sown fresh for success. Sowing seed requires little space - 9 x 2 inch pots to an ice-cream container, add water as for the Bog Method and no hassles with watering. (See also the "Bill Owen" solution to fail-safe germination in this Newsletter.)



Erigeron pappocroma

x 2/3

The Study Group offers members a varied selection of seed. It isn't being used enough. We rely on members to assist in building up data on germination rates and particularly viability. We would like to get basic information on the viability of seed, so a record of seed failing to germinate is as significant as successes. For instance, how long do brachyscomes retain viability for you? And we presume that some arid species retain viability for a long while, but cracking the "code" to initiate germination is a problem with some species. Has anyone germinated Helipterum polygalifolium?

The Study Group is continuing to concentrate on Brachyscome species over the coming year and the seed required is listed on p.14. This project is in the capable hands of Maureen Schaumann.

Our major activity for the year is the Open Weekend on October 14th - 15th. We felt it was time for Melbourne members to return country and interstate hospitality. Full details will appear in the June NL. We are planning a program of activities, garden visits, talks, sessions for informal discussion, displays and plants for sale, exchange or barter. Here is an opportunity to share enthusiasm for daisies and fruitful exchange of ideas. Perhaps you would like to speak to us about your particular project or you may want information on a certain area. Let us know. Our aim is to keep costs low. Some of us can offer a bed, floor space or camper space. Keep the date free. See you in October.

Esma.

SPECIES OR FORMS NEW TO THE GROUP

Brachyscome curvicarpa ? (PS3052)

(curvicarpa = curved fruit)

Curved-seed Daisy

Maureen and I separately grew seed from Dr. Philip Short - one packet labelled B. curvicarpa (PS 3052) and the other labelled ? B. chrysoglossa (PS 3052). Both packets produced identical yellow-flowering plants which reminded us of the plants we had grown from seed collected at Ulupna Island on the Murray River in October 1983. We had then identified those plants as the yellow form of B. heterodonta, referred to as B. heterodonta var. A in Plants of New South Wales. A census of the Cycads, Conifers and Angiosperms (1981) by Jacobs and Pickard. Other synonyms are B. marginata var. chrysoglossa and B. chrysoglossa.

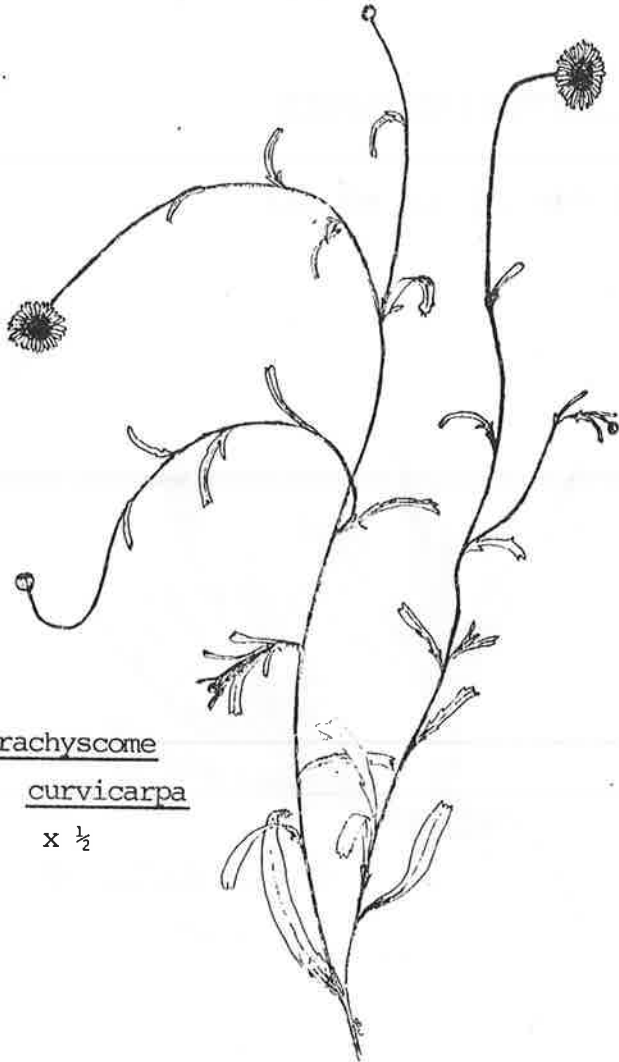
When we applied to Philip for assistance he advised us to regard PS 3052 as B. curvicarpa for the moment and added that he was uncertain of the circumscription of B. curvicarpa and, indeed, of B. chrysoglossa. He intends to make a collecting trip later this year and we are hoping that he will be able to clarify the position after that.

Philip collected B. curvicarpa between Charleville and Cunnamulla in southern Queensland. Plants were growing along the road in sand.

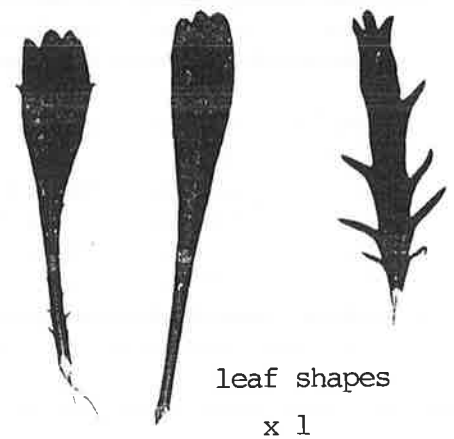
Seed sown in March '88 germinated in 9 to 30 days and seedlings were transplanted in 63 days. Now I have two plants in 20 cm pots side by side in a fairly protected position, getting only morning sun. They are both 30 cm high and about 50 cm across, with an open, rounded habit. The shorter stems are upright, but they straggle over the rim as they grow longer. The plants have flowered since early August, been cut back and fed in November and have then kept on flowering until now (February). They show no sign of stopping, but I would like to cut them back again if I were not collecting seed at a great rate.

Bright yellow heads, 18 - 20 mm across, have about 31 narrow rays. The heads are borne singly at the tips of long flowering stalks, 16 - 18 cm long, usually with two small leaves appearing at the base. The scapes have sparse glandular hairs, more just below the heads. The receptacle is wide (to 4.5 mm across), convex and hemispherical. There are 14 broad, green involucral bracts with transparent margins and sparsely hairy on the outer surfaces.

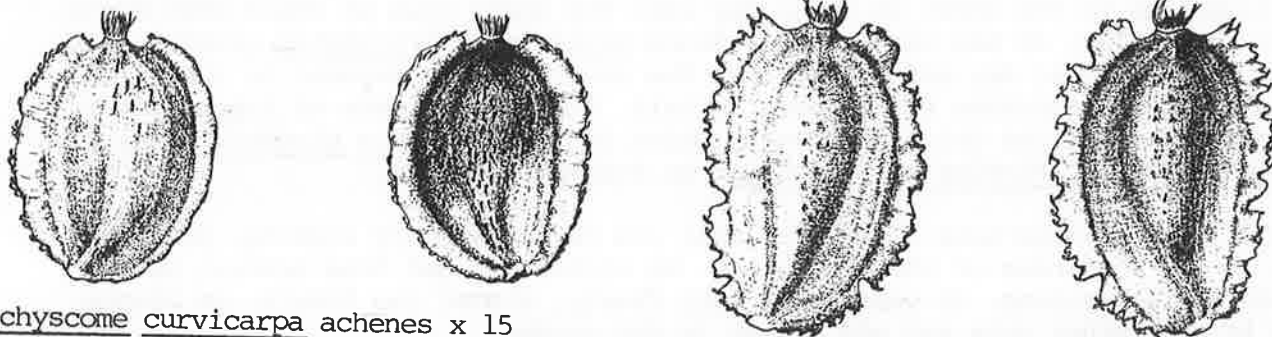
The bright green leaves, 10 - 55 mm x 2 - 10 mm, are extremely variable. All but the shortest leaves have teeth or lobes. There are usually 3 teeth at the apex, but some leaves also have about 7 deep lobes along the length of the margin while others may just have 6 - 8 small teeth irregularly along it. Some are sessile and some have long, tapering stalks. Hardly any hairs can be seen on the surfaces, just a few sparse hairs on the margins, some glandular and some long and fine.



Brachyscome
curvicarpa
x 1/2



leaf shapes
x 1



x 15

Brachyscome curvicarpa achenes x 15

Brachyscome heterodonta var. A

The achenes, 2 mm x 1.8 mm, are brown, and the majority are strongly curved – like tiny cowrie shells – with wings which fold inwards. The folded wings have margins lined with short glandular hairs and there is a band of short, glandular hairs down the body. The white pappus is conspicuous.

Dr. Gwenda Davis (in her revision of Brachyscome species) especially mentions two areas of Queensland in which specimens of B. curvicarpa collected had yellow rays, Yelarbon and west of Winton. Other specimens examined had white or lavender rays.

I have another plant in the garden in an open, sunny position. So far it is doing well, but it is still quite young. Plants look as though they will be perennials rather than annuals under cultivation, but they may trick us yet. Maureen and I both like this species. It is bright, long-flowering and promises to be relatively easy to grow.

On Ulupna Is. we found two forms of a yellow-flowered brachyscome – a small form not far from the car park, and a taller form on higher ground about ½ - 1 Km away.

The small form, 14 x 15 cm, had heads 2 cm across on scapes about 6.5 cm long. The leaves were very similar to those of B. curvicarpa (PS 3052), but were smaller, 8 to 10 mm x 1 mm. The scape was very glandular hairy all along its length. The achenes were generally similar too, but were larger (3mm x 2mm) and flatter and the wing was not folded in.

The tall form, 35 - 38 cm high, had heads 1.5 - 2 cm across, on scapes about 15 cm long. The leaves were also similar to those of B. curvicarpa and were 10-50 x 2-10mm. The achenes were the same as those of the small form. The scape, however, was almost glabrous except for a few glandular hairs just below the head.

This is all very interesting. Which factors are most important in separating species from each other? Could this PS 3052 be the same species as the Ulupna Island plants? Could distance curve the achenes and fold the wings inwards? Until we learn more, do try growing the seed of B. curvicarpa (yellow). It has potential.

Judy Barker.

Helichrysum bracteatum (South West Rocks, N.S.W.)

On our October 1987 travelling holiday (that seems ages ago) we had been National Park hopping through eastern NSW.. Hat Head National Park on the coast had been recommended to us as a good spot to camp. Although there were limited facilities it was a delightful camp set amongst tall palms, banksias, melaleucas and casuarinas.



Helichrysum
bracteatum
(South West Rocks)

x ½

A few kilometres to the north is Trial Bay with the small town of South West Rocks overlooking the bay. It was here that we found Helichrysum bracteatum growing on a headland between Trial Bay and Little Bay. The area was very exposed to the ocean, with the tallest vegetation being about 1m tall. Scattered plants of H.bracteatum were growing amongst the thick vegetation which included Boronia pinnata, Hakea sp., Actinotus helianthi, Pimelea sp., Isopogon sp. and Stylidium sp..

The Golden Everlastings were about 30cm tall and rather spindly looking, possibly because of the thickness of the vegetation. We collected seed from several heads and sowed it last autumn. It germinated very freely, almost too freely, as plants came up in many other pots and odd places in the garden.

Planted out into the garden it has grown into a mature plant, about 80 x 80cm, with a compact growth habit. The flower-heads are held above the foliage on strong 30cm stems which are usually branched once. There are two or three leaf bracts on each stem. When the spent heads are pruned back the bright green growth comes away from the base of the plant with another flush of flowers.

The flower-heads are up to 40mm across, with the outer bracts brown on the reverse side. At least three rows of bright yellow bracts make up the "petals" of the head and the prominent central disc is golden.

The plants in our garden are growing in raised beds of clay loam and are receiving the over spray when we water the lawn. A species that would suit most daisy lovers' gardens.

Bruce and Thelma Wallace.

Brachyscome melanocarpa

(SA., NSW., Qld.)

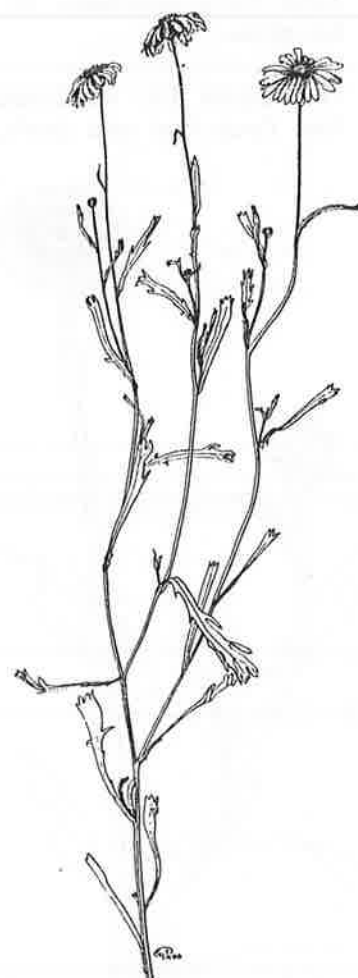
(melanocarpa = black fruit)

Black-seed Daisy

In the past I have been a bit rude about B.melanocarpa, describing it as an untidy, straggly plant, lacking interest of any sort. Since we have been collecting seed from two or three generations of plants I have been forced to change my tune (which is not unusual). I now like this perennial species very much, but a number of members with clay soils profess themselves still untouched by its charms.

When three tubes are planted together in my sandy loam the clump of B.melanocarpa flowers from spring to autumn. The rays are dark mauve to lilac, fading slightly with time and the intensity of the sun. Pat Shaw (a Queensland member) has sent me seed of a white form which I will try this year. The heads are from 20 to 25 mm across on long flowering stalks (about 15 cm long) and make a bold show. I imagine I can smell a faint, subtle perfume - a bit like talcum powder from afar.

The branching stems are up to 50 cm long. It's true that they do run along the ground after a time, but the last 20 - 25cm seems to remain upright, so plants no longer look straggly. The leaves are irregularly toothed or lobed, 18 - 35 x 4 - 15 mm, usually stalkless, and have a nice bluish tinge to them in the garden - perhaps due to the covering of short hairs.



Brachyscome melanocarpa x 1/2



The achenes are satisfyingly large and black, very easy to collect - even without specs. Some forms have thick, entire margins and some have tuberculate margins, but all are black, thick, 2 - 2.5 x 1mm, warted on both faces and with a pappus.

Judy Barker.

SPECIAL PROJECTS REPORTS

Helichrysum scorpioides / Helichrysum rutidolepis Complex by Esma Salkin

This brief report on my special project makes no attempt to discuss differences between the two species for as Willis (1972) states; "Lines of demarcation between this species (H.rutidolepis) and the commoner H.scorpioides are sometimes hazy and revisional work in the group is desirable".

H.scorpioides was among some of the earliest daisies described (1806), and H.rutidolepis was described some time later in 1838. The complex extends from the alps to sea level and to date material has been collected from eighteen provenances in Victoria, N.S.W. and Tasmania. Superficially the complex can be divided into two groups:-

- a) Sea level to about 1,500 m. Leaves bright green. Flowers in spring.
- b) Above 1,500 m. Leaves grey-green to grey. Flowers in summer.

Exceptions: A form from Mount Skene (1571 m) fits group (a) and a Corryong form is intermediate between the two groups.

Plants from thirteen provenances (Vic., NSW., Tas.) are growing on in pots (15 cm) and plants from seven provenances (Vic., NSW.) were planted out in autumn with a south-westerly aspect which receives very hot sun in summer. Where available two plants from the same provenance were planted close together to assist with fertilization! The bed was mulched with mulched garden litter. This does not appear to have given adequate root protection. A plant from Hepburn Springs (Vic.) succumbed to heat. Two plants from Fairhaven (Vic.) have died back to ground level, but new shoots are appearing. A third plant from this area is thriving and still flowering well near a pool in the same bed and almost choked by Isotoma axillaris. Plants from alpine provenances are holding their own and just coming into bud, but will need care during Melbourne's sporadic bursts of summer.

Among the pot collection the Mount Cole plant has been the most rewarding. It bloomed over a long period in spring, the lemon flowers (3 cm diam.) beckoning brightly on the ends of stems (25 cm long).

So far the species most adapted to garden conditions is one grown from garden seed sent by U.K. member, Jeff Irons. This seed originated from Mount Wilson (NSW.). Seed planted out in autumn gave excellent results. Growth in the seedling stage was rapid and small seedlings (6 cm across) were planted into a sheltered north-facing garden. Growth has remained rapid and in less than two months the seedlings have developed into a low, compact, suckering bush (50 x 20 cm). Flower-heads (1.5 to 2 cm) on branching stems are deep gold and cover the bush. In contrast to Jeff's experience seed set in my garden in all species is poor.

I propagate from seed and cuttings. Cuttings are preferred and I use either root cuttings or stem cuttings that include some of the hardened stem at ground level. These types of cuttings give consistently better results than side shoots.

Attractive forms in this complex, and those favoured by me, are forms from the Omeo highway at about 1,500 m. The foliage is a soft grey and the heads are 2.5 cm in diameter. One group in the colony had pale lemon flowers with the outer bracts pale buff and the adjacent colony had gold flowers with brown outer bracts.

My collection had a disappointing start when an elusive mite munched away at the chlorophyll in the leaves, reducing plants to a crispy brown residue. My enthusiasm for this daisy has revived with no sign of the infestation this year.

Tasks for the future are obvious - simulate plants' natural habitat in the understorey (for after all they pop up through grass), propagate from the existing

collection, extend the collection, try hand pollinating and tackle the botanical differences.

The genus Podolepis

by Bev. Courtney

I first became aware of the genus Podolepis when, as a new Study Group member, I was given some seed to provide plants which were to be planted into the Organ Pipes National Park.

One of these was a species with the unlikely name of Podolepis jaceoides. I kept one plant back to put into my own garden and was delighted with the large, showy daisies it produced. (It's common name is, in fact, Showy Podolepis.)

Later, I was given a seedling of Podolepis canescens which proved to be equally attractive, so, when casting about for a new genus to study, it wasn't hard to decide on Podolepis, particularly as only three or four species had so far been grown by Study Group members.

There are 21 species of Podolepis in Australia. The genus is represented in all mainland states with one species (Podolepis jaceoides) occurring in Tasmania. Generally they are absent from the far tropical north, although one species (Podolepis arachnoidea) occurs along the northern Queensland coast. They are all herbaceous perennials or annuals and usually begin life as a cluster of radical leaves from which arise one or more flowering stems. Inflorescences are usually branched and flower size can vary from 3 cm in P. jaceoides to 6 mm in the tiny P. capillaris.



Podolepis jaceoides

achene x 13

Flower colour is yellow in all but two species; P. capillaris is white and P. gracilis is pink.

In setting out to study the genus I first collected as much information as I could — keys, descriptions, drawings and photographs. Seed was much harder to come by as some species are restricted in range and therefore rare. To date I have seed of eight species plus one or two unknowns. The aim will be to grow one plant of each species in a 15 or 20 cm pot as a specimen and then to put as many plants as possible into different spots in the garden. And, of course, to collect seed.

Brachyscome ptychocarpa

by Esma Salkin

Recently I was leafing through an old note book when I came upon some herbarium notes and reference to B. ptychocarpa in the general area of Barbara Buchanan's new abode. I sent off a message in early January "If you are ever up that way" A few days later came the reply, "I rang a friend who lives in the area and she confirmed the sighting, but alas no achenes!" Barbara and grand-daughter visited the area at the end of the month and collected a few achenes for our reference library and research. Thank you Barbara and our budding botanist, Summah.

This brachyscome is rare and confined to north-eastern Victoria. It is an annual, normally flowering in early summer. I suspect that flowering has been extended this year by exceptional rains. This habitat was moist (on the banks of an intermittent stream) and plants die as the soil dries out. The soil is heavy clay. B. ptychocarpa grows in association with B. gracilis and low shrubs such as Calytrix species.

Neville Scarlett collected the original specimen in 1983 and it is lodged in the National Herbarium in Melbourne.

WORKING ON THE BORDER or DISCOVERING DAISIES

by Joe Stephens

Recently, while working at and around Mt. Carlyle on the Vic-NSW border to the east of Mallacoota, I had the pleasure of a few hours to spare. This allowed me to wander around amongst the local flora, much of which consists of shrubs with horticultural potential.

Amongst these were about a dozen shrubby members of the Asteraceae of the following species:- Bedfordia arborescens (Blanket-leaf), Calomeria amaranthoides (Incense Plant), two or three species of Cassinia, five species of Helichrysum - H. argophyllum, H. conditum, H. cuneifolium, H. elatum (in flower), and H. obcordatum, Olearia lirata and O. tomentosa (in flower) and a couple of senecios.

As I am no expert I could be corrected on some of these as well as two more cassinias or helichrysums which I was not willing to try to identify at all.

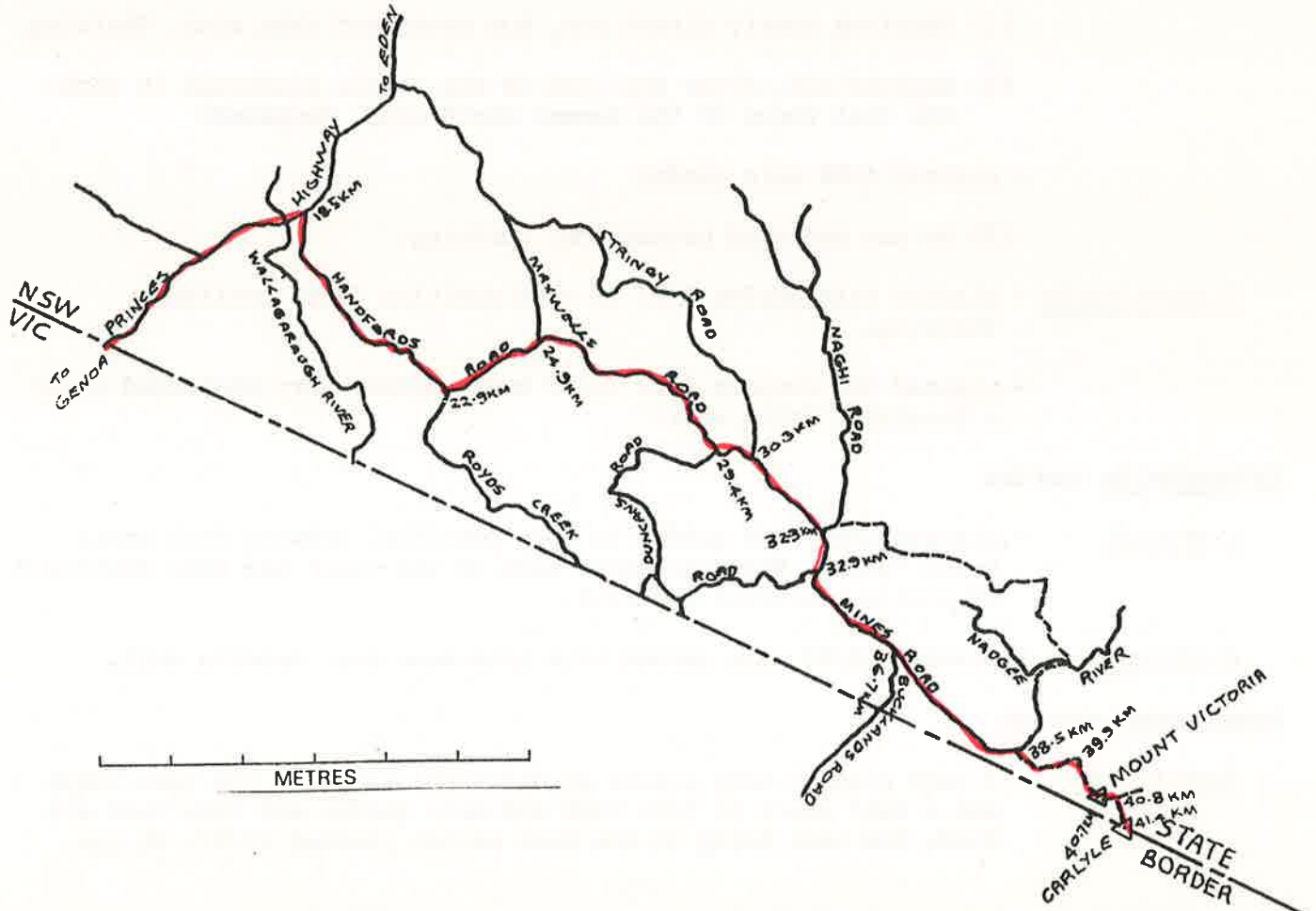
I recommend this area to the east of Mallacoota Inlet (which can be reached via the Wallagaraugh Forest Drive) to anyone. Not only are there quite a few daisies, but there are also picnic areas provided as well as good views of the Inlet.

August 1988.

Below is an access diagram from my work to a very interesting area to visit, particularly in August, when it is covered in flowering plants, including daisies.

Mt. Victoria Trig /Carlyle Trig Four Wheel Drive Vehicle Access (Aug.88)

From Genoa 00.0kms, proceed along the Princes Highway until the bridge over the Wallagaraugh River is crossed, turn right almost immediately along Handfords Road 18.5kms, turn right onto Maxwells Road at 24.9kms, at 32.3kms go to the right down Mines Road for 5.6kms, here at 38.5kms a rough 4WD track goes to the right between two blazed trees, at 39.9kms a winch will be required at short steep rise if it is wet, at 40.7kms Mt. Victoria Trig is reached, proceed past here 100m, turning right into a track overgrown with scrub, proceed down ridge to Carlyle Trig Border mark at 41.4kms. Travelling time from Genoa approx. 1 to 1½ hours.



GROWING DAISIES IN BACCHUS MARSH

by Alison Pearce

In between building a new house, working at two jobs to keep it, and amusing three cats (who think my only occupation is to open doors and cans for them) I have been trying for the last three and a half years to turn a large expanse of lucerne, box-thorn and blackberries into something that resembles my idea of a garden. Unfortunately for my neighbours, that idea owes more to wilderness than neatness! The first two years or so were spent planting the areas down fence lines and the driveway, and on my other interests of herbs and old roses. Sorry, "native-only" people, I am strictly non-racist and will whack in anything that looks good!

Most of my block is rich, red-coloured (due to high iron content) loam with a low pH, but the back part includes a large, very rocky area that slopes upwards. It was turned over to try to rid it of box-thorn bushes, the remains of which were burnt, and so the soil here is very loose and contains wood ash. Small box-thorn plants reappear at times and these are sprayed with 'Zero'. The weeds and grasses that grow there are either sprayed or removed by hand (not as hard as it sounds due to the loose soil), and left to rot down to increase the humus level and provide a mulch in summer. This spring I was slow to act and many of the smaller plants were "lost" under a twelve inch cover of green, some unfortunately for ever!

This back part was planted with tall-growing trees in April 1985 and then pretty well ignored apart from the odd plantings, mostly grevilleas. Last year the fence lines were planted with small-growing species of Eucalyptus, Acacia and Dodonaea, etc., and a multitude of small shrubs which included Brachyscome, Calocephalus, Helichrysum and Olearia species. All plants were treated the same; the holes were treated with 'Agrasol' and the plant was watered in with a liquid plant food and 'Plant Starter'.

Here are the results:-

Olearia species

O.phlogopappa - planted 10/87 bush garden

- (1) Receives mostly direct sun, but protected from wind. Thriving.
- (2) Dappled sun. After the loss of the acacia windbreak it took the full force of the summer north wind. Deceased!

- planted 4/86 main garden

- (3) No sun and wind protection. Thriving.

O.teretifolia - planted main garden 4/87 in open position (with conifers). Thriving.

- planted the compact form 10/87 bush garden. Very sheltered under a eucalypt. Going well.

Calocephalus species

C.brownii - planted 3/87 bush garden in open position. Growing well until being "lost". When uncovered much of the plant had been destroyed by snails. Survival doubtful.

C.citreus - planted 10/85 main garden with afternoon sun. Growing well.

Brachyscome species

B.multifida - I have planted many plants at different times in the last three and a half years in both bush and main garden and they have all died, the last being in the bush garden, planted 10/87. It too

was "lost" and when "found" and uncovered was still looking good. False hope! Within a month it had "carked it". This species hates me!

B.segmentosa - planted 10/88 in bush garden by site of future pond. Too early to say.

Helichrysum species

H.apiculatum - planted 1/87 main garden. Going by the description in Australian Daisies I had the Queensland form because whole parts of the plant would die off at times. Last time it went too far and the whole lot of it died!

H.baxteri - planted 6/87 bush garden in open position. Growing well.

H.bracteatum - planted 10/85 main garden and 6/87 bush garden. Both plants died within a few months, reason uncertain.
I have also planted the seedling plants sold in the nursery trade as H.'Bright Bikinis'. These have always thrived and rewarded me with months of colour.

H.diosmifolium - planted 4/87 bush garden under Eucalyptus melliodora in dappled sun. Thriving.

Rutidosia species

R.leptorhynchoides - I have had several plants of this given to me over the years (from a friend of a friend who had worked at Latrobe Uni. removing small native roadside plants before they were cleared). They have behaved as annuals, which they are not, growing well, flowering profusely and then dying. My last plant flowered for two seasons and I thought I finally had a "goer" when, you guessed it, it too expired! I am hoping the seed I sowed will provide me with more, but with my record I'm not confident!



Olearia teretifolia

x 2/3

Which brings me to the dismal part! My non-success with seed. When I joined the AD SG I obtained seed from Esma and duly sowed it in the autumn. (There were about 10 varieties.) I use a commercial vermiculite mix with which I have had a good deal of success in raising other native spp., particularly Eucalyptus, Eremophila, Acacia and Hakea. The seeded punnets were placed in a large polystyrene box to keep them damp and partially covered with glass. Of the ten trays sown only Helipterum manglesii germinated well with about 20 plants. Waitzia suaveolens provided me with a single plant, as did Helichrysum lindleyi. From the others nothing, and the blame must lie with me (and my paintbrush). Over autumn and winter I had been painting the internal doors and trims that had been waiting for years for me to get around to them. Because I was using my only "non-working" day of Saturday to do it, which is normally my Gardening Day, it resulted in

"lost" plants and forgotten seed trays. They dried out several times and the ginger cat from across the road kept pushing the cover off and sleeping in the box! My three girls would never do that. They are too well mannered and prefer carpet!

I hope my record will improve next year. After all, it can't get much worse!

Judy asked me to write something after seeing an article I wrote on Myrtaceae in Australian Plants. Unfortunately some of the plants I described as growing well (including six out of eight Calothamnus species) took offence and promptly died! I hope I don't get a repeat performance from my daisies!

Happy gardening to you all.

NOTES ON A VISIT TO THE WARRUMBUNGLES

by Gloria Thomlinson

I think I saw Brachyscome formosa in the Warrumbungles (Fans Horizon walk). Unfortunately I mislaid the immature achenes that I had hoped to check against the newsletter drawings. B. aculeata and Cassinia leptoccephala were spotted there also. The main flowering period would have been in August/September. The temperature during the day was quite hot while we were there and everything seemed to be drying quickly.

Helichrysum bracteatum, H. viscosum, Podolepis jaceoides and P. neglecta were mainly on the roadsides and on the lower open areas, while Helipterum albicans var. albicans and H. anthemoides were on the slopes of the Grand High Tops circuit. Calotis cuneifolia was seen in most areas.

I had a wonderful time walking and scrambling over rocks so it didn't seem to matter that there was not a great abundance of flowers, although big patches of Actinotus helianthi were a big thrill for all of us as we had not seen them in the wild before.

Helichrysum diosmifolium was also a first in the wild for me. Around Gilgandra it looked very good among the Calytrix tetragona which was past its flowering period, but looking resplendent with the many-shaded calyces left.

(These notes were an extract from a letter dated November '89.)

THE OWEN METHOD OF GROWING AUSTRALIAN DAISIES

by Bill Owen

I have been growing daisies for about three years and have developed a simple method of growing them. All you need are:-

1. A foam box lined with black plastic sheeting to hold water, and with drainage holes about 15 cm above the bottom.
2. Seed mixture consisting of 3 parts of sieved river sand and 1 part of sieved leaf mould or peatmoss.
3. A flywire cover to protect the seeds from heavy rain.
4. A mist sprayer containing Benlate solution.
5. Fifty packets of daisy seeds and fifty 5 cm (2 inch) tubes.
6. Name labels and a chinagraph pencil.
7. A sunny place protected from snails.
8. Several hundred small tubes and potting mixture for the seedlings.

The fifty tubes are filled with damp seed mixture and the seed is sprinkled on top of the mixture, but not covered. Then the labelled pots are placed in the foam box and sprayed with Benlate to prevent any fungal growth. A 10 cm (4 inch) empty pot is put into the box at one end and is filled with water when watering is needed. Any surplus water drains out through the holes. The seedlings are dug out of the mixtures when the roots are 3 cm or more long and are sprayed with Benlate when potted on. The best time to plant the seeds in Ballarat is October/November in order to get good growth before winter.

GROWING CASSINIAS

by Judy Barker

I like cassinias. On the whole they are easy to grow and their neat clusters of heads dry well and make good 'filler' for dried arrangements. I have tried the following species:-

Cassinia aculeata. (2 to 3 m) Seed from Anglesea germinated well. I put two large tubes in sandy loam at Hawthorn in autumn '88 and both are now about 1.8 m tall. They have not flowered yet, but are flourishing on neglect. Some forms have pure white clusters; others are dusty pink. Either colour could be useful for floral art.

Cassinia aureonitens. (1 to 3 m). Peter Vaughan gave us seed of this yellow-flowered species. It germinated moderately well and took potting on in its stride, but failed to grow when put into the garden in any situation. I have taken cuttings from healthy plants, but the resultant plants have also failed in the garden. So now I am trying to grow them in pots with saucers of water under them in summer. I have noticed that my plants have previously died in hot weather. So far I have two small plants in 15 cm pots and they are still alive, although after a long, hot spell in January half the growth on one plant has died. I will now put these pots in the shade.

Cassinia laevis. (1 to 3 m). Seed from Nindethana gave me good germination in about 30 days when sown in March '88. Three tubes planted together in three separate places in the garden in Sept./Oct. '88 have done well. The tallest clump is already about 40 cm high and the narrow, dark grey-green foliage looks attractive.

Cassinia quinquefaria. (1 to 3 m). Seed from Burrinjuck Dam has produced fast-growing plants which shoot away when put in the ground. The straw-coloured clusters are pyramidal in shape and dry very easily.

Cassinia uncata. (1 to 1.5 m). I have tried two forms, one from the Bendigo area and one from Burrinjuck Dam. Germination of both forms is excellent, but only one plant from Bendigo remains alive in the garden, whereas I have four from Burrinjuck. Either the Bendigo form is not enjoying the conditions here or I am trying to plant it while it is still too small. The Bendigo form is open, 50 cm tall, and has creamy yellow heads; the Burrinjuck form is more dense, also 50 cm tall, but the foliage is finer and the heads are greenish cream at first and then deepen to cream.

Cassinias smell fresh and aromatic to my nose, but are known to cause hay fever and skin irritations in some people. In the garden they grow quickly and could be used as windbreaks or for screening. Pruning after flowering is recommended to keep plants shapely and alive.

The DEADLINE for the JUNE NEWSLETTER is MAY 2nd. Please send contributions to Judy Barker, 9 Widford Street, East Hawthorn, 3123. Thank you to new and old correspondents and special thanks to artists, Gloria Thomlinson and Betty Campbell.

A WEEK IN THE HIGH COUNTRY

by Bruce Wallace

The first week of January saw members of the Bendigo Field Naturalists and the Victorian Natural Photography Club assemble at two ski lodges at Mt.Hotham for a week of hiking and photographing.

My son, Stephen, and I were among the sixty plus members present. Because of the numbers of people it was decided that individuals could organise their own activities for each day.

This was how we spent our week.

After sorting out our accomodation we decided to walk to the summit of Mt.Hotham. It was interesting to watch the rain clouds move around us, deluging the valleys while we were dry on the mountain top.

The first full day was a hike to Mt.Loch. In warm sunshine we set out along the track, coming to a dead but beautiful Snow Gum set against a mountain backdrop. It was difficult for members of the photography group to decide if it was worth one or two rolls of film.

Small patches of daisies were growing alongside the track, but it wasn't until we reached the snow plains below the summit that the daisies really excelled themselves. The Alpine Everlasting, Helichrysum alpinum, had us puzzled for some time as it was only in the red bud stage. But the Silver Daisy, Celmisia astelii-fofia, were everywhere, along with the Field Daisy, Brachyscome decipiens. Up amongst the basalt rocks the Silver Ewartia, Ewartia nubigena hugged close to the ground. The Alpine Mint-bush, Prostanthera cuneata was in full bloom and if a few leaves were crushed the aroma was almost overpowering. There were also some very fine specimens of Snow Aciphylla, Aciphylla glacialis in full flower.

Upon reaching the summit and taking the necessary photos we set out for Derrick Hut. Along the way a few patches of Sky Lily, Herpolirion novae-zelandiae, were flowering in the boggy areas. After an inspection of the hut we headed on to Spargo Hut, an old but useable hut in times of emergency. Growing amongst the grass here was the Golden Moth Orchid, Diuris pedunculata.

Our ski lodge was just across the valley so it was decided to follow a small creek down to Swindlers Creek and then walk up the Blue Haven ski run. This turned out to be rather strenuous, both down and up the other side. But we found Cascade Everlasting, Helichrysum secundiflorum, growing down near the creek at the bottom which made our descent worthwhile. Three young crows in their nest on top of a ski-tow pylon did not appreciate a visit from Stephen, who climbed up to examine the nest.

Next day, with threatening skies, we set out to walk to Table-top Mountain. Leaving the cars beside the road at J.B.Plain we followed the track across the grassy plain. As this area is grazed by cattle it was soon evident that daisies and cattle do not mix, although some do manage to survive. A patch of Bulbine Lily, Bulbine bulbosa, brightened up a grey day as the rain set in after lunch, making it a wet walk home.

Bright sunshine greeted us next morning as we set out to conquer The Twins. The fire trail was easy walking at first. A lyrebird was calling from the lower side of the track and Hoary Sunrays, Helipterum albicans grew amongst the rocks in the sunnier spots along the track. There were also some fine examples of Dusty Daisy-bush, Olearia phlogopappa, along the track. Alpine Oxylobium, Oxylobium alpestre, grew in abundance as we approached the summit. The track down the other side was very steep. It was on this side that we found growing in large drifts Chamomile Sunray, Helipterum anthemoides, with the Orange Everlasting, Helichrysum acuminatum in bud. As we retraced our steps back along part of the fire trail we once again

stopped to look at the magnificent display of Grass Trigger-plants, Stylidium graminifolium, growing in mass.

Back at the car we decided to drive down towards Dargo to an area called Lankey Plain, as it had been recommended as a good daisy area. But we were disappointed as the cattle grazed the area. Only a few flowers were to be seen amongst the thick grass. While trying to photograph a tiny Alpine Leek-orchid, Prasophyllum alpinum, I managed to lay on top of an ants' nest in the grass. They stormed out to attack the intruder and I beat a hasty retreat.

We set out early on the fourth morning to walk to Mt. Feathertop. The Common Billy-button, Craspedia glauca, was quite common along the early section of the track, as was the Yam Daisy, Microseris scapigera. Violet Fleabane, Erigeron pappocoma, was also flowering amongst the grass scattered about as we wandered along the track. There were some excellent patches of Leafy Daisy, Brachyscome rigidula, as we passed by on the way to the top. Most of the flowers on the Bogong Daisy-bushes, Olearia frostii, had been damaged by insects, and what appeared to be Scaly Buttons, Leptorhynchus squamatus, carpeted large areas.

The last kilometre to the summit, although very steep, rewarded us with an excellent show of daisies. The Snow Daisy, Brachyscome nivalis, was flowering amongst the rocks. Back at the ski lodge weary bodies slept well all night.

After the Feathertop walk it was decided to have a quiet day. So Stephen and I planned to do the Mt. Loch walk again, photographing some more of the flowers on the flatter areas just below the summit. We also added some extra daisies to our list - Scaly Everlasting, Helichrysum hookeri, and Variable Groundsel, Senecio lautus. A large area of Candle Heath, Richea continentis, was really quite spectacular.

A small mauve daisy which was quite common on the snowfields was referred to in Ian McCann's book The Alps in Flower as Brachycome spathulata, the Coarse Daisy. But in both Wildflowers of South East Australia by Jean Galbraith and The Distribution and Conservation of Vascular Plants in the Alpine Area of Victoria by Cliff Beauglehole the Coarse Daisy is referred to as B. scapiformis.

Back at Mt. Loch car park before lunch we decided to drive down to Victoria Falls. Growing along the sides of the road was Shiny Cassinia, Cassinia longifolia. This daisy was host to brown coloured beetles which were feeding upon the large clusters of white flower-heads. The waterfall added another charm to an already beautiful region.

The last day in the high country was spent relaxing down at Swindlers Creek, even if it was a long walk down some 300 metres vertical drop (according to the information at the Blue Haven Ski Run). The creek water was too cold for swimming, but this did not stop Stephen from trying his hand at dam wall construction, etc..

So our week at Mt. Hotham came to an end. Reflecting back on the week spent in this beautiful area of Victoria the high spots were the Mt. Loch area, the walk to Mt. Feathertop, and the spectacular sunrises and sunsets. Even though the cattlemen claim they do little damage there was a marked difference between the ungrazed and grazed areas. It was quite obvious that cattle grazing in the high country are having an effect on the dicotyledonous plants.



Olearia
frostii
x 3/4

The following daisies were reported and identified by group members:-

<u>Brachyscome decipiens</u> Field Daisy	<u>H.semipapposum</u> Clustered Everlasting
<u>B.nivalis</u> Snow Daisy	<u>H.scorpioides</u> Button Everlasting
<u>B.rigidula</u> Leafy Daisy	<u>H.thyrsoideum</u> Sticky Everlasting
<u>B.spathulata</u> Coarse Daisy	<u>Helipterum albicans</u> Hoary Sunray
<u>Cassinia longifolia</u> Shiny Cassinia	<u>H.anthemoides</u> Chamomile Sunray
<u>Celmisia asteliifolia</u> Silver Daisy	<u>Leptorhynchos squamatus</u> Scaly Buttons
<u>Craspedia glauca</u> Common Billy-buttons	<u>Microseris scapigera</u> Yam Daisy
<u>Erigeron pappocroma</u> Violet Fleabane	<u>Olearia algida</u> Mountain Daisy-bush
<u>Ewartia nubigena</u> Silver Ewartia	<u>O.frostii</u> Bogong Daisy-bush
<u>Helichrysum alpinum</u> Alpine Everlasting	<u>O.phlogopappa</u> Dusty Daisy-bush
<u>H.acuminatum</u> Orange Everlasting	<u>Senecio lautus</u> Variable Groundsel
<u>H.secundiflorum</u> Cascade Everlasting	<u>Helichrysum hookeri</u> Scaly Everlasting

AUSTRALIAN DAISIES

by Judy Barker

Two errors have been found in our book (so far):-

1. On p.172 Captain James (Methuselah) Mangles has been allowed to live to 111. 1756 should read 1786. This was a printer's error that none of the proof readers noticed.
2. On p.100, under Similar Species, we state that the achenes of C.longifolia are longer than those of C.asteliifolia. They are, of course, shorter. This is my fault alone and I offer profound apologies.

An errata slip has been enclosed with each newsletter.

BRACHYSCOME SPECIES STILL REQUIRED

Maureen has furnished a list of Brachyscome species she still needs for one of her special projects - the detailed study of all brachyscomes. If you live near or are travelling in any of the areas set out could you please look for some seed for her? She is grateful that seed of some species has already been donated, but if it is still on the list she would like a little more.

<u>Brachyscome tetrapterocarpa</u> (white) Qld.	In water channels 15 miles south-east of Muttaborra on Aramac road. Winton, Longreach, Charleville.
" <u>dimorphocarpa</u> (mauve) SA.	Bon Bon Station to Kingoonya.
" <u>xanthocarpa</u> (white/lilac) SA.	Eyre Peninsula, Hincks Conservation Park.
" <u>petrophila</u> (white) Vic.	Little River Falls north-east of Wulgulmerang (on cliff faces) Murrundal River.
" <u>ptychocarpa</u> (pink) NSW. Vic.	Mt.Macquarie near Carcoar Quartzville to Neuminemang Buffalo Range, Strathbogie Ranges
" <u>dissectifolia</u> (mauve/white) Qld. NSW.	Rose Hill, Guyra Port Stephens, sand dunes - mauve
" <u>procumbens</u> (bluish) NSW. Vic.	Mt.Lindsay, Blue Hole near Armidale, Gorge country of the upper Snowy River near Deddick.

- " whitei (purple/white) N.Qld. Cape River to NSW. border
Bybara on sandy soil between
Inglewood and Milmerian
Warrego district, Gilruth plains
near Cunnamulla. Adavale (lavender)
- " ascendens (lavender) Qld. Robert's Plateau near Moran's Falls
- " papillosa (mauve) NSW. Mossgiel (saltbush plain).
- " curvicarpa (mauve/white forms)
Qld. 7 miles east of Blackall (mauve)
Mt.Howitt Station,
Gregory South district (white).
NSW. 20 miles east of Walgett.
Trangie, Wilcannia, Jerilderie,
Til Til, Co, Kilfera (saltbush plain).
Vic. Yarriambiack Creek, Shire of Borung.
- " muelleri (white/pale mauve) SA. Gawler and Iron Knob districts.
- " goniocarpa (white) Qld. Darling Downs, Bybera.
NSW. Paroo River, Narrabri, Pilliga,
Condobolin, Wyalong.
Vic. Murray River near Albury.
SA. Davenport Creek, Kinchina,
Fowler's Bay, Bordertown.
WA. Flat Rock, Salt River.
- " rara (blue?) Qld. Floodwaters of the Wilson River
western Queensland.
- " eriogona (bluish) SA. Lake Frome region.
- " riparia (white/blue) Vic. Genoa River Gorge, Gelantipy,
Snowy River.
- " eyrensis (white/pale blue) WA. Figure-of-eight Island,
Recherche Archipelago.
- " tesquorum (white/mauve) CA. Oodnadatta.
- " blackii (blue/white) CA. Mt.Ultim, Mt.Allen summit.
- " pusilla (blue) WA. Wooroloo, Claremont.
- " billardieri (colour not described)
WA. Vicinity of Perth
- " ciliaris var. lyrifolia SA. Mt.Chambers, Flinders Range.
- " oncocarpa (mauve) WA. Carnarvon. Near Pindar.
- " glandulosa (white) WA. Stirling Range. Midland Junction.
- " perpusilla
var. perpusilla (white) SA. Nonning, Kinchina.
WA. Swan River Colony.
var. tenella (white) Vic. Puckapunyal, Northwood, Tallarook.
SA. Nonning, Kinchina, Encounter Bay.
WA. Cue, Boulder.
NSW. Corner Reserve, 6 miles from Henty.
Bulgandry Reserve, Walbundrie,
Jindera Gap.

Brachyscome clementii (white) N-W Australia Between Ashburton and De Grey Rivers.
 " radicata (white/violet) Tas. Foothills of Mount Wellington and
 montane grassland near Cradle Mountain.

NEW MEMBERS

We wish to extend a warm welcome to two new members:-

Natalie Peate, 26 Kardinia Crescent, Warranwood, Victoria, 3134.

Angus Stewart, who is moving from Gosford (NSW) to the Sale area (Vic.) at the end of February.

STUDY GROUP NEWS

MEMBERSHIP

Members of Study Groups are required to be financial members of SGAP.

OPEN WEEKEND, 14th/15th OCTOBER, 1989

TENTATIVE TIMETABLE

SATURDAY (14th OCTOBER)

TIME	ACTIVITY
2.00 - 4.00 pm.	Garden visit to Kath. Deery's garden and afternoon tea. (29 Ruthven Way, Ringwood East, Melway Map 50 E 5.)
5.00 pm.	Return to Judy Barker's. (9 Widford Street, East Hawthorn, Melway Map 59 G 3.)
5.30 - 6.30 pm.	Discussion of members' <u>daisy</u> problems. Propagation Display.
6.30 - 7.30 pm.	Dinner (provided by the Study Group Committee).
8.00 pm.	Special projects talks and slides.
10.30 pm.	Supper.

SUNDAY (15th. October)

9.30 am.	Garden visits (to be arranged).
12.30 pm.	Barbecue lunch with Salkins. (Meal provided.)

There will also be displays of special projects (including floral art, dried flowers, dyeing, brachyscomes and helipterums), the seed box, and plants for sale, exchange or barter. Do members have any other suggestions?

We have been overwhelmed by the hospitality of our country members when we have visited them. Now we would like to return some of it to you.

Have you noticed ...?

- ... how spectacular Ixiolaena sp. (Qld) has been over the summer, and that it has not been affected by the hot weather? Betty Campbell.
- ... which insects are pollinating your garden? Alf Salkin.
- ... Brachyscome stuartii doing well in the garden from garden grown seed? Maureen.
- ... that many plants died in the Melbourne area after the last downpour? Bev.
- ... that the colour of the wired H.bracteatum heads deepens when they are stored? Joy showed us heads of 'Princess of Wales' that had turned orange and cream forms that had darkened. Joy Greig.
- ... that the lower leaves of Helichrysum cuneifolium browned off in the spring and the whole plant looked as though it would die? This phenomenon also occurred with other shrubby Helichrysum species such as H.purpurascens, H.antennarium, H.ledifolium, H.rosmarinifolium and H.secundiflorum. Does anyone know what causes this? It looks most unsightly. Group.
- ... how promiscuous B.segmentosa is? Alf Salkin.
- ... that B.rigidula at Joe Wilson's "Branch Out" Nursery has flowered like mad and has seeded in all his pots? Beth Armstrong.
- ... that the rays of B.multifida and B.angustifolia become pinker when growing on soil that has been treated with sulphate of iron? Betty Campbell.

MEMBERS' REPORTS

- Peter Vaughan - "I was very interested to read Barbara Buchanan's article. I have been sexing the butterflies feeding off my Senecio minimus and they have all been male. (They are easy to sex.) I am convinced Barbara is right. I will continue to check them for most of summer."
- Joe Stephens - "My plant of Calotis scabiosifolia var. integrifolia is very attractive growing naturally, but the burrs are very sharp, so I will try one in a hanging basket, where I can remove the flowers."
- Gloria Thomlinson (in November '88) - "My Odixia achlaena is in bud and Helichrysum cuneifolium is in full flower and looks really well. I have picked some heads and hung them to dry. The Helichrysum diotophyllum that I grew from a cutting from Maureen's is in bud also (two buds)."
- Jeff Irons (in September '88) - "The Mt.Samaria form of B.diversifolia is magnificent now - but will there be enough warm days for seed? B.parvula has a fragile charm and is worth considering as a special subject for a particular place in the rockery, but it is neither a bedding nor a pot plant here. B.readeri (Hawthorn) opened at the beginning of September. It isn't much good here. I have plenty of the Mt.Wilson Cassinia aureo-nitens coming up. If you like I will enquire whether it grows on the sandstone or the basalt, but think the latter is more likely. Your problem with it will be lack of soil moisture and atmospheric humidity in the summer." (The Group would appreciate some of this seed, Jeff. Your seed germinates very successfully here, and the forms seem to grow with more vigour. Judy)
- Norm Bone sent a cutting from the Geelong Advertiser (18/11/88) about a patch of rare daisies found by environmentalists on an eroded clifftop above Fyansford (near Geelong). It looks like a Brachyscome species. The Geelong Indigenous Plant Nursery plans to propagate it from seed, reintroduce seedlings to the site and sell any surplus to the public this autumn. Norm is following this up for the Study Group.

SEED LIST:

A full seed list is published in each March newsletter. Please keep this list as only additions and deletions will be included in the other 1989 newsletters. A **stamped self-addressed envelope** must be enclosed with each request for seed. Please write to Esma Salkin, 38 Pinewood Drive, Mt.Waverley, 3149.

Ammobium alatum, Angianthus acrohyalinus, glabratus, tomentosus,
Apalochlamys spectabilis, Bedfordia arborescens, Bellida graminea
Brachyscome aculeata, basaltica var. gracilis, campylocarpa,
ciliaris var. ciliaris (garden), var. lanuginosa (Bourke, Pt. Augusta, Tibooburra),
var. integrifolia, decipiens, curvicarpa, diversifolia var. diversifolia (King Is.),
exilis, graminea, halophila, heterodonta var. heterodonta (Fowler's Gap),
heterodonta var. A, iberidifolia, lineariloba, melanocarpa, microcarpa,
multifida var. dilatata (garden, Gippsland Lakes), var. multifida (mauve and white),
nivalis, nova-anglica, obovata, parvula var. parvula, readeri, rigidula, scapigera,
segmentosa, spathulata (alps, Blayney, Mt. Buller, Mt. Selwyn), stuartii,
tenuiscapa var. pubescens, trachycarpa.
Calocephalus brownii, citreus*, Calotis cuneifolia, inermis, multicaulis.
Cassinia aculeata, aureonitens, complanata, laevis, longifolia, quinquefaria, uncata.
Cephalopterum drummondii (white, lemon), Chrysocoryne drummondii, pusilla.
Chthonocephalus pseudevax. Craspedia chrysantha, glauca (Aberfeldy, Grampians, Tas.,
Werribee), glauca var. alpina (Tas.), globosa*, sp. (Echo Flat, orange).
Elachanthus glaber, Gnaphalium sp..
Helichrysum acuminatum, adenophorum var. waddelliae, ambiguum, apiculatum (Anglesea,
compact form, Mt. Hope, Naracoorte, SA.), baxteri (buff), bicolor, bracteatum (Bonang,
Cape Hillsborough, Cobar, 'Diamond Head', hybrid (gold), Grampians, Swift's Creek,
Yarrangobilly), collinum, cuneifolium, davenportii, dealbatum, diosmifolium (pink,
white), diotophyllum, elatum, hookeri, ledifolium, lepidophyllum, lindleyi,
obcordatum (Chewton, Fryerstown, Ringwood, Tas.), rupicola, scorpioides (garden,
Lithgow, Tas. Mt. Wilson origin), secundiflorum, semipapposum (Maldon, Mt. Buller,
Rushworth, Wyangala Dam), thyrsoideum, viscosum (garden, Maldon, Rushworth,
Shepparton).
Helipterum albicans ssp. alpinum, ssp. albicans var. albicans (Mt. Samaria, Harcourt,
Hovells Creek* (white), Lithgow, Wallangara and garden*), ssp. albicans
var. buffaloensis, var. incanum (Gunning, Tas.), anthemoides (Qld., Whitlands,
red-bud), chlorocephalum, cotula, diffusum, gracile, humboldtianum*, hyalospermum,
involucratum, manglesii, molle, moschatum, praecox, propinquum, pygmaeum, roseum,
simplex, splendidum, sterilescens, strictum, sturtianum, venustum.
Ixiolaena leptolepis, sp. (Queensland). Leptorhynchos scabrus, panaetioides.
Microseris scapigera. Minuria denticulata, leptophylla. Myriocephalus guerinae, gracilis.
Othonna gregorii (syn. Senecio gregorii). Podolepis canescens, gracilis, jaceoides*,
kendallii, lessonii, neglecta, rugata.
Rutidosia helichrysoidea, leptorhynchoidea. Schoenia cassiniana.
Vittadinia bicolor, muelleri. Waitzia acuminatum, aurea, citrina, suaveolens.

Olearia spp. are only included in the seed list when seed is fresh. If members are specially interested in olearias please contact Esma who will supply fresh seed when it is available. We have fresh seed of O.alpicola and O.tenuifolia (garden) now.

(*) denotes seed of these species is available in larger amounts on request.

SEED DONORS

Many thanks to Jeff Irons, Joy Greig, Bev. Courtney, Maureen Schaumann, Colin Jones, Betty Campbell, Pat Shaw, Barbara Buchanan, Esma and Alf Salkin, and Judy Barker.

SUBSCRIPTIONS

Subscriptions are \$5.00 per year or \$10.00 for overseas members. Fees are due on 30th. June, 1989, payable by cheque.
