

**ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTS****THE AUSTRALIAN DAISY STUDY GROUP NEWSLETTER NO. 46**

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## BETH ARMSTRONG

Beth joined the Daisy Study Group in 1984. Over the twelve years she was a member she attended all our monthly general meetings as well as the fortnightly book committee meetings. These frequent meetings of the Melbourne members resulted in a very close-knit unit, and Beth was a most important element of this unit. When certain tasks needed volunteers Beth was one of the first to offer her services. She has collected plants and seed, written articles for the newsletters, carried out various experimental seed germination techniques, helped at displays, and cooked delicious casseroles and desserts — all with her usual cheerfulness and calm efficiency. As you will see, she was still writing for the newsletter as recently as May this year. For this article on *Ixiolaena supina* we have John Armstrong providing the botanical illustration. The combination of Beth and John was always a great one.

Beth was a member of the editorial committee of *Australian Brachyscomes* and one of the authors. She brought humour, common-sense and an economy of words to our deliberations. Because some members were especially overburdened, Beth undertook the writing of the glossary but ill health interrupted, and she accepted an offer of help from Natalie Peate. Natalie reported that the time spent on the glossary involved much hilarity. Our Anglesea friend, Mary D. White rated the glossary highly, and she was not one to bestow praise lightly.

Beth was comely; it was a pleasure to rest one's eyes on her. She was direct, often setting the committee back on the agenda with one well chosen comment. She did not say much but, when she did speak, it was invariably to the point. We became dependent on her broad knowledge of plants, propagation, botany, books and people. Over the years she was a member she became essential to the well-being of the Group. Nobody is indispensable but Beth came very close. We will all miss her.

Our sympathy goes to John, Lisa and Matthew.

## THE EVERLASTINGS PROJECT

At the end of September we have about twenty-five members assisting in this project, including some of our new members. Other members have collected seed of species on the list for us. Thank you all. We need results from as many different locations as possible; positive and negative observations are essential if we are to present a complete picture.

There were many species left on the list that we could not obtain, even after we had exhausted all the possible seed sources we could find. The time had come for the members of the editorial committee to go out and look for these elusive species. Maureen and Vic left in June to go to Yamba and then to travel back to Melbourne in a leisurely fashion. Esma and Alf left soon after that to go north through part of western Queensland and then across to the Northern Territory and up to Kakadu. Armed with twenty pages of locations and a collector's licence, Lee and I flew to Perth in mid-August, hired a 4WD and travelled 6600km in fifteen days, looking for and finding many of the species we needed, and an abundance of other beautiful plants. We were too early for seed in most cases but Natalie Peate, Joy Greig and Peg McAllister have followed in our footsteps a month later, and we are hoping that they will collect much of the seed we need. While we were there we met a number of interested local people who have also offered to collect seed in their vicinity for us.

Ngaire Turner had a most enjoyable ten day trip as part of the Kings Park Seed Collecting Expedition led by Luke Sweedman. They left on September 13th, and the trip was a great success. Ngaire, full of enthusiasm, rang me on her return to Perth. She will not be back in Melbourne until November but is posting a present back to ADSG of a CD recently put out by Kings Park on the subject of the role of smoke in germination. This has been produced for the launch of Smoke Water, a project researched by a team of workers at Kings Park under Dr Kingsley Dixon. We have asked Ngaire to bring back five bottles with her. We will test the responses of our everlasting species to it.

Other members to make forays in the spring have been Colin Jones, Bob Mylius and Lotte von Richter. We hope they have all been successful.

Before we left Perth I visited Paul Wilson at the Western Australian Herbarium. We are deeply in Paul's debt for the great assistance he has provided so generously for ADSG over many years. He again gave me

invaluable help by showing me specimens I had never seen before, reminding me of the differences between similar species, and allowing me to note additional locations for a number of species. He even photocopied some specimens for me to take on my travels when he saw the hurried and inadequate sketches I was making. It is thanks to Paul that we found many of the species we sought.

At the end of our trip I visited Kings Park and met Luke Sweedman, the official seed collector, and Bob Dixon, their horticultural advisor. I was able to give Luke the exact locations of certain species he wished to find, and to share with him some of the seed of one species we had collected. I am very grateful to Luke for opening the Kings Park Herbarium for me. Bob Dixon wrote the Kings Park contribution to the chapter 'Brachyscomes for Gardens' in *Australian Brachyscomes*, and so it was good to meet him. He later sent me six slides of his garden — a mass of everlastings — and kindly allowed me to duplicate them. ADSG is indeed fortunate to deal with people who are so ready to share.

Looking back on our trip, there are five outstanding species that made a great and lasting impression on me; *Haptotrichion colwillii*, *H. conicum*, *Rhodanthe cremea*, *R. collina* and *Schoenia macivorii*. There are many other species that I am longing to try, such as *R. oppositifolia*, *R. propinqua*, *R. psammophila* and *R. sphaerocephala*, but the first five are gorgeous — at least in the wild. Please add *Haptotrichion colwillii* and *H. conicum* to your list of species in *Australian Everlastings Part I*, and change the number of genera from eight to nine. Natalie took one look at my specimens and swiftly volunteered to add it to her list.

The committee has purchased a Global Positioning System (GPS) for use on our expeditions. It is about the size of a mobile phone, and it uses passing satellites to record latitude and longitude within a few metres. It works well. Please remember that it is not too late to join the project.

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### *Senecio garlandii*

by Ros Cornish

In May 1996 John and I attended a meeting in Wagga Wagga with a few others from the SE NSW and ACT Regional Group of the Australian Network for Plant Conservation (ANPC). Our aim was to encourage interested people from the SW Slopes of NSW to form their own Regional Group which they have now done. One of the speakers at the meeting was Dr Geoff Burrows, lecturer in horticulture at the Wagga Wagga campus of the Charles Sturt University. He talked of his interest in the flora of the region and that only 7,000 ha or 0.2% of the SW slopes is reserved and of this, 4,000 ha is in one reserve. There is very little native vegetation remaining. For the last ten years Geoff has been surveying 25 sites and cataloguing the species found. Of the 620 species studies, 100 were previously unrecorded in the region.

Of interest to ADSG members is that the study has located three vulnerable species — all Asteraceae — *Ammobium craspedioides*, *Brachyscome papillosa* and *Senecio garlandii*.

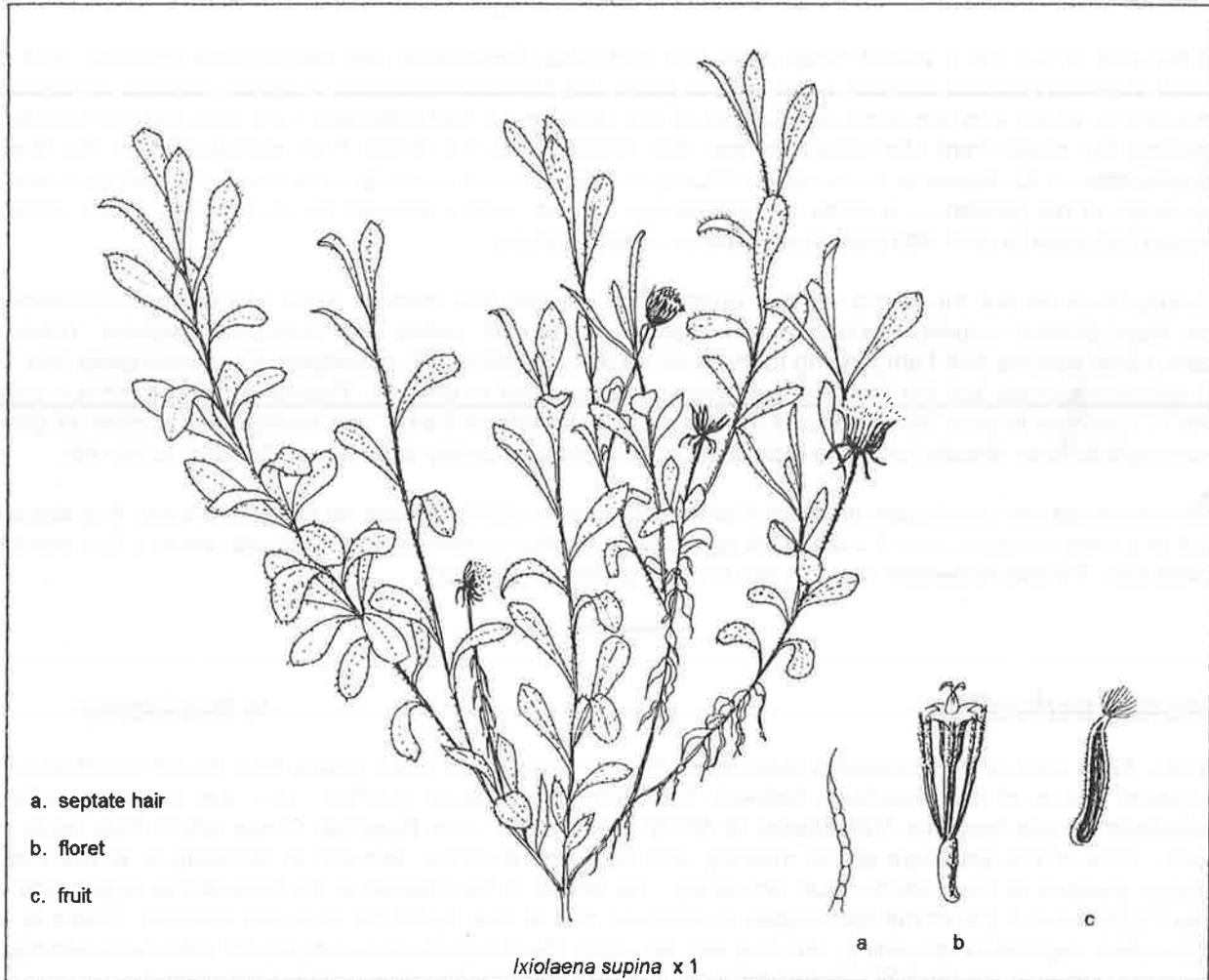
Geoff led a walk to the summit of The Rock Nature Reserve where we saw a large population of *S. garlandii* which had recovered from a recent bushfire and was looking very healthy. Some plants were in flower while some had set seed. They were the dominant plant in a fairly large, distinct area. Plants were about 1 m high and very dense. I quite liked the effect as the very woolly leaves gave the plants a silvery look which contrasted well with the bright yellow flowers and white fluffy seeds.

On returning home I investigated *S. garlandii* in 'Flora of New South Wales' and also in the ANBG herbarium records via the Internet. The herbarium records show that collections have been made from The Rock Nature Reserve and that it is in cultivation at the ANBG (in Sections 29 and 31). The Rock sites are described as being a moist gully on a dry sandstone slope, altitude 370m, and also below the north cliff face and along the rock wall below the summit. Geoff Burrow's study shows that it occurs not only at The Rock but also at four other sites — Flowerpot Hill, Tabletop Nature Reserve, Benambra State Forest and Ulandra Nature Reserve.

Gwen Harden ('Flora of New South Wales') describes *S. garlandii* as a perennial herb or shrub 40–120 cm high, much-branched, stems woolly. She also states that it flowers chiefly in spring and grows on sheltered slopes of rocky outcrops from West Wyalong to the Albury district.

I plan to return in spring one year to see the massed effect of this species flowering as I'm sure it will be quite spectacular.

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**SPECIES OR FORMS NEW TO MEMBERS*****Ixiolaena supina***

I first saw *Ixiolaena supina* growing from a rocky cliff on the northern side of Kangaroo Island at Middle Beach. It was about 30cm in length, with a few characteristic white flowers; the leaves were green and the plant was pendant.

The next sighting was at Cape le Couedic on an exposed headland where it was a prostrate, hairy mat, looking completely different except for the flowers.

Flowers — mainly October–January.

I think this plant could grow in our coastal conditions.

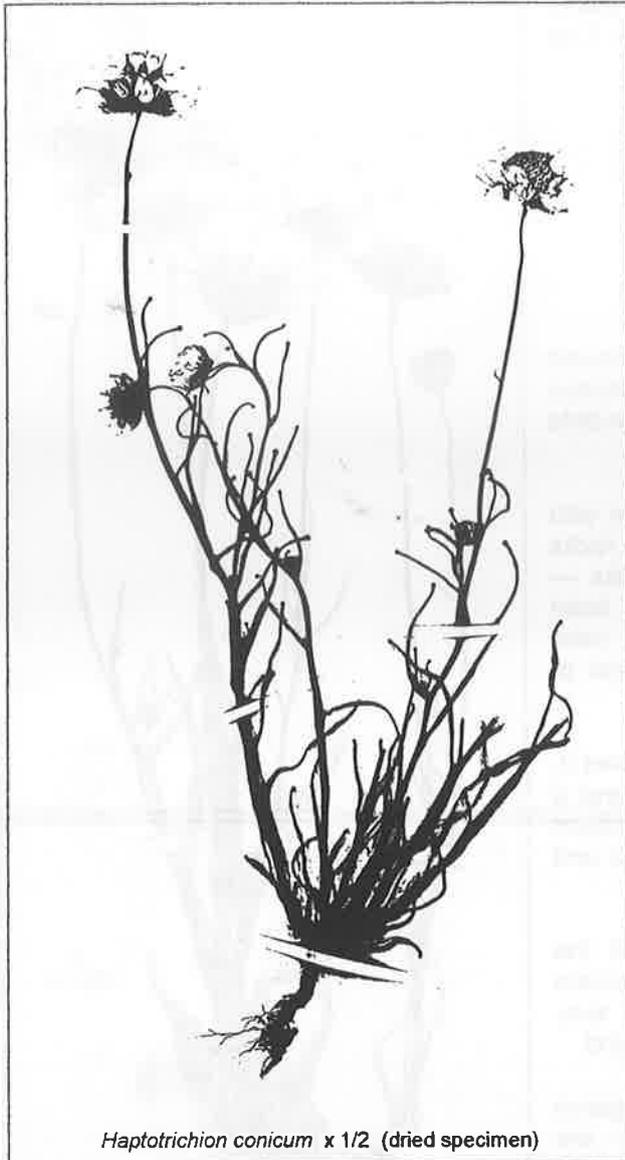
Range: Kangaroo Island, (SA) and the islands of Bass Strait.

by **Beth Armstrong**

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***Haptotrichions***

When you are bowling along a dirt road at 100 km per hour you are apt to think that all those nice yellow daisies you are passing are *Helipterum craspedioides*. How very lucky that we were hungry enough to pull over to the edge of the road between Gascoyne Junction and Carnarvon at a pleasing stretch of water called Salt Gully! The ground was covered with yellow everlastings. Lee observed that these everlastings were different, and that was the end of lunch for quite some time.



*Haptotrichion conicum* x 1/2 (dried specimen)

described (1992, *Nuytsia*, Vol. 8, No. 3, 422–425). *Haptotrichion* contains two species, *H. conicum* (syn. *Waitzia conica*) and *H. colwillii* which Paul named after John because he had first collected it and because he had a special interest in the native Asteraceae.

*Haptotrichion conicum* is an annual, 20–40cm x 14–30cm, with an open habit, occurring between Carnarvon and Gascoyne Junction. The stems are sometimes reddish, and branch mainly in the upper half. Glandular hairs are present, more dense just below the head, where there are also a few fine webby hairs. **Leaves** are 0.5–4.5cm x 0.5–2mm, alternate, sessile, glandular-hairy, and with unusual blunt, club-like tips. **Heads** are 2–3cm across. The outermost bracts are transparent, not stalked, with a central brown line; the inner bracts are blunt, obovate, yellow, with a fringed claw, which makes the head look somewhat like that of *Leucochrysum stipitatum* (as Maureen was quick to recognise). The involucre is hemispherical, the receptacle is steeply conical. The achenes are 4.5–5.5 mm long including the beak, the body covered with short papillae. The pappus bristles are yellow, barbed but plumose towards the tip, and united in 2 bundles of 7–8 bristles. The corolla is slightly shorter than the pappus.

*H. colwillii* (illustrated on p. 42) was growing in red clay-loam in a saline depression at the southern end of Shark Bay. Associated species were shrubs, *Swainsona* sp., *Cephalopterum drummondii* and *Rhodanthe cremea*. It is an annual, 30–35cm x 15–20cm. The stems also branched in the top half. It is described as being very similar to *H. conicum*. The main differences between the two species are that *H. colwillii* does not have leaves with round club-like tips, the receptacle is more rounded than narrow-conical, and the pappus is not split. My specimens had heads larger than those of *H. conicum*, being 3–4.5cm across.

These two species are very handsome. If we have no problems with germination they would be excellent species for cultivation. At least one of the glasshouses at Kings Park appeared to house many pots of

These bright little plants were massed in a swathe along the western bank, and stretched as far as the eye could see in both directions. They looked like a large species of *Schoenia* but the disc centres of the more mature plants were elongating into pronounced cones. I collected seed, although it did not seem mature, and thought I would identify it with my monocular when we reached Carnarvon. It was with some incredulity that I observed the fruits were all beaked like those of *Waitzia* species. It didn't look like a waitzia to me!

The very next day we were hunting without much hope for *Rhodanthe oppositifolia* along the road to Denham when we stumbled across a small patch of plants very similar to those growing at Salt Gully, but these were taller, and a beautiful shade of orange-yellow. The disc centres were becoming conical, and a quick look at the fruit showed that it was also beaked. Just for a moment I thought I had come across a patch of exotic daisies such as gazanias. It was extremely frustrating to remember that I had left most of my reference books at home. A few days later I parcelled up the specimens and sent them to Paul Wilson because I knew I would see him and get an answer before we left Perth.

I was just sitting, musing on the absence of daisies as we swept between Wubin and Moora, when into my mind popped the name 'John Colwill', and I knew immediately what these plants were — *Haptotrichion* spp. Many years ago John Colwill had sent me seed which he had collected around Shark Bay and he had tentatively identified the population as something which I can't remember. I said it was a *Waitzia* because the seed was beaked. We were both wrong. It belonged to a new genus which Paul Wilson

*H. colwillii*. I was told that the staff had hand-pollinated plants and were growing from the seed harvested from the pots. That sounded like an idea after my own heart.

by Judy Barker

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## MY GARDEN

by Ngaire Turner

What a challenge this plot has been! It began as mowed weeds, a few overgrown shrubs, and several dead stumps poking through black plastic-covered builders' rubble disguised with pine chips.

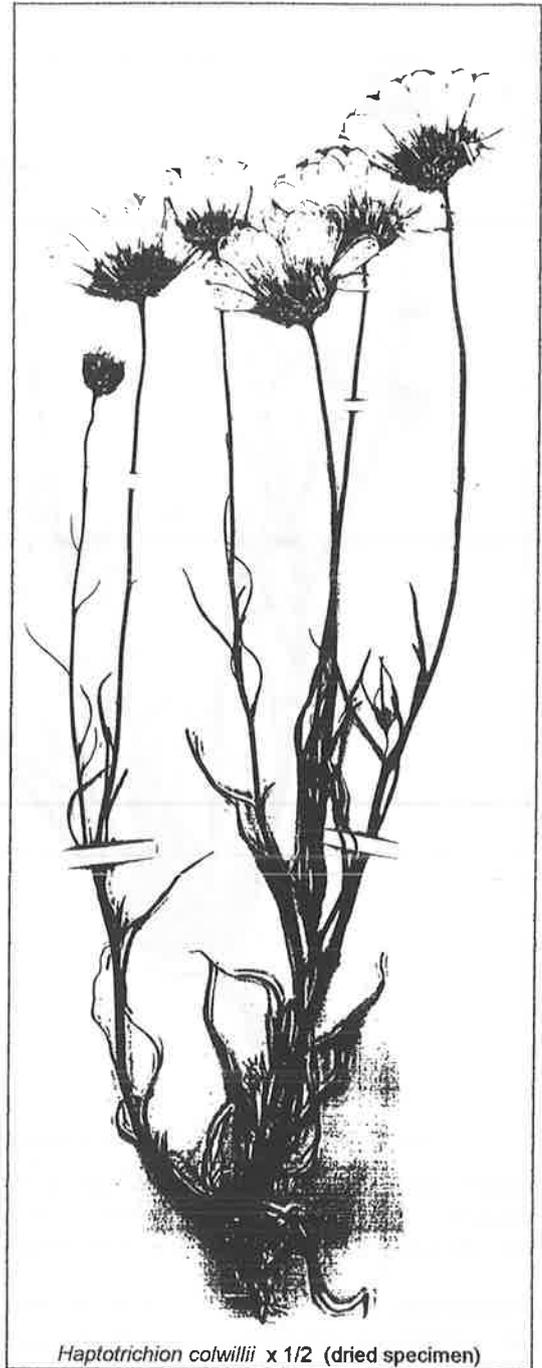
Well, it is different now. Many hours of soil preparation with the addition of gypsum and 7 cubic metres of soil, rocks artistically placed by Roger Stone (he's great with rocks — quote me), and the foundation for planting had been achieved. Shaped raised beds around a paved area were covered with 10 cubic metres of mulch (shredded pine or chopped eucalyptus mulch).

Next, the exciting part — what to plant. You have guessed it, some kangaroo paws, mostly *Anigosanthos flavidus*, and a few favourites like *Isopogon formosus*, *Dendrobium kingianum*, *Boronia muelleri* 'Sunset Serenade', and lots and lots of daisies.

The daisies have brought the butterflies, or was it the combination of *Bracteantha bracteata* with *Pratia pedunculata* flowering together that attracted the fluttering wings of sixty butterflies at a time, then more and still more? Quite a sight!

The visiting wattlebirds enjoyed acrobatics on the kangaroo paws and the blackbirds dug up everything. They are presently severely restricted by gutter-guard edgings to pathways and circles of gutter-guard around small plants. These circles are removed when the plants cover enough ground to win some of the time.

I enjoy growing seedlings and striking a few cuttings. Gradually my garden plants are creating a cottage style garden. It is a joy to sit with a cuppa and just look at it.



*Haptotrichion colwillii* x 1/2 (dried specimen)

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## LEARNING MORE ABOUT RICEFLOWER

by Esther Cook

### Helidon Daisy Farm, June 1996

Well, we are hoping the drought might have broken — for the moment. After six years of grinding drought we finished 1995 with the creek running and a 'normal' total for the year! Then, to top it off, we had 23 inches in the first two weeks of May. About 2000 riceflower (*Ozothamnus diosmifolius*) which had struggled along in the drought, year after year, gave up. Hilling the rows is definitely, absolutely essential, however well drained the soil seems to be!

We had the opportunity to study the root system of a good, sturdy, year-old seedling when we dug a trench for some more underground pipes. The roots were in three different layers. Three or four heavy laterals, with almost no branching at all, spread out 1.5m from the stem, levelling out at about 60cm below the

surface, where the soil was moist. A curtain of very fine roots spread down from the laterals to at least 1m. Similar fine roots from the stems just below the surface filled in the space above the laterals. In normal wet periods the area with the surface roots would drain between storms and showers, even if the lower levels were saturated. Even if the lower fine roots were drowned, it is perhaps possible for the heavy laterals to grow new ones, providing the surface roots survive. One thing we notice in the bush is that riceflower only grow where there is broken soil or rocks, and excellent drainage.

Harvest in spring last year brought some surprises. Some seedlings, which had flowered in November the year before when there was no rain at all, flowered in September after a shower. By the end of the harvest period we had sorted out half a dozen different flowering responses that different ecotypes make to stress — all quite efficient at preserving their genes for future seedlings, though some ways of coping are more helpful than others from a commercial viewpoint. Some simply don't bud until it rains; as soon as it rains they come into flower very quickly. Others have many buds which stay tiny and closed until it rains. If they have water early enough, the buds go on and open normally, but where there is no water a few open, and the rest dry out and die in the summer heat. Many lines go lanky, with only the primary shoots on each main stem flowering.

Additional water brings a new flush of flowers below the primary head, a marketing disaster. Some lines flower evenly at the normal time but all the stems are shorter, with smaller flower heads. Their flowers are quite good quality and are simply marketed shorter than usual. One interesting type shed some of its branches. The rest of the bush looked good though shorter than usual, with dark green leaves and normal-sized heads. In our new commercial plantings we have tried to dodge the lanky types and the types that flower at very unpredictable times.

A major problem in the past year has been the fungus, *Helminthosporium* sp., which shows up first as very white tips followed by stubby, ugly, dense 'witches' brooms'. We had seen a little bit of it the year before, but after the 1995 harvest it really spread. Although it was thought to be a very weak pathogen, small riceflower plants were dying and older ones were ruined. For a while it looked like the end of riceflower farming, until we talked to a scientist who was involved in a severe outbreak in sugarcane during the 1960s. They had discovered that it multiplied in and spread from one particularly susceptible line. Once they got rid of that line, the number of spores dropped sharply, and the less susceptible types were able to resist it. We went back to our data base to check the parentage of our worst affected lines. Even though our seedlings, nearly 3000 in all, are out-crosses and we could only be sure of one parent, two original plants stood out as carriers of the susceptible gene or genes. We hope that by removing any lines that are badly affected we can work around the problem. It will probably also help if plants are less stressed by the weather.

One thing we can be sure of. Anyone who brings plants from the wild into commercial production faces a steep learning curve! After eight and a half years we sometimes don't seem much closer to a learning plateau than when we started. In fact, so far we have found more questions than answers, with just enough success to keep us trying. As a bonus, a healthy, well grown bush covered with pink or white heads is just so beautiful that it is an inspiration in itself.

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## One Year On

by Ros Cornish

Easter 1996 saw us returning to the *Rutidosia leptorrhynchoides* site on the Captains Flat Road which we had visited the previous Easter after getting details of the site while surfing the Internet (NL 43).

*R. leptorrhynchoides* is a perennial, multi-stemmed forb to 35cm. It is a hemicryptophyte with buds at the surface of the soil but not below. The stems usually die back at the end of summer and new growth appears by early winter. It has lovely bright yellow flowers about 2cm in diameter which cluster at the end of the stems. Since our discovery of this population last year we've had a soft spot for this daisy. We were hoping to see evidence that the population had grown since the previous year.

To our horror, as we approached what we thought was the right spot, there was evidence of major road works — widening of the road which involved cutting into the slight hill/cutting, scraping of the verge and resealing. I began to think the worst of the Yarrowlumla Shire Council — it really was a site of devastation. But then, as we got out of the car and started to look for the site we discovered that a temporary fence had been put up, a chalk line had been drawn which outlined the edge of the *R. leptorrhynchoides* population

closest to the road and the backhoe had carefully eaten away the cutting along the line. Further investigation revealed that every *R. leptorrhynchoides* plant had been tagged or marked in some way.

We were very pleased at our discovery and at the apparent increase in the number of plants compared with our findings the previous year — we hadn't found many at all on our first visit and were concerned at the large weed growth near the plants. The following week I contacted the Yarrowlunla Shire Council to congratulate them and to find out what was going on. Not only did I discover that there is a Recovery Plan for *R. leptorrhynchoides*, but there is also a CSIRO endangered plant study of it.

Dr Andrew Young, CSIRO Plant Industry scientist, has been studying the genetic diversity of *R. leptorrhynchoides* populations. Once widespread in grasslands, *R. leptorrhynchoides* is now only found in 20 small patches in the ACT, NSW and Victoria, some containing only five plants. Widespread clearing has wreaked havoc on the grasslands and populations of *R. leptorrhynchoides*. Dr Young's genetic studies have shown that reduced population size results in genetic erosion and increased inbreeding. Some of the plants in Victoria have developed extra chromosomes and these are likely to be sterile. The Victorian sites studied by Dr Young have lower regrowth rates than other sites probably because of lower growth rates, fewer flowers and reduced germination rates.

The Recovery Plan is being implemented by the NSW National Parks and Wildlife Service, and funding is being provided by the Australian Nature Conservation Agency. However, the Recovery Team involves other players including a number of Shire Councils, local Bush Fire Brigades and landowners. The main objective of the Recovery Plan is to achieve a change in the listing of *R. leptorrhynchoides* from Endangered to Vulnerable (ANZECC) within 10 years of implementation of the plan. Some of the actions to be undertaken include formal protection of populations, particularly those in NSW and ACT, implementation of management strategies of the sites including weed control, recounting populations periodically, conducting research on the genetic and demographic effects of habitat fragmentation and reduction in population size, conducting research into the effects of fire, establishing a seed store and off-site conservation area, and preparing public information material to promote community awareness.

One step has already been taken in the ACT. Earlier this year *R. leptorrhynchoides* was declared Endangered under the new ACT Nature Conservation Act. This means that there will be an action plan drawn up for its protection within the ACT.

I intend to keep an eye on this daisy and the various activities undertaken for its conservation as I have a soft spot for it. I hope to bring you good news in the future.

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## GARDENING THE EASY WAY

by Bill Owen

In talks to our Group (SGAP Central Highlands) I have always said that a successful gardener needs to be naturally lazy, so that the work can be done with the minimum of equipment and effort. There is no need for a home gardener to have igloos, shade houses and potting sheds. They cost too much, take up too much space, and usually look more like a rubbish dump. All you need is a work bench in your garage, and a place under a tree to store your plants.

### **GROWING PLANTS FROM SEED**

#### Materials:

1. Foam boxes, 34 × 47 × 19cm.
2. Black plastic sheeting to line the seed boxes.
3. Flywire and timber slats to cover the seed boxes.
4. A metal or wooden stand for the seed box to keep snails away.
5. One 7.5cm (3") and 22 Yoghurt pots for each seed box
6. Sheets of 34 × 47cm second hand plate glass to fit on the seedling boxes for seedlings potted on.
7. Labels — cut from venetian blinds or margarine containers.
8. A marking pen or chinagraph pencil, and a water sprayer.
9. Seed mixture, potting mixture, gravel sand sieved through a 1/8" sieve.

The seed box is cut level at the top, and lined with black plastic sheeting, secured by black adhesive tape. Partly fill with water to test for leaks from the bottom and, if watertight, place a piece of timber (about 1/2" deep) flat on the bottom against a side. Lay a large screwdriver on it and push the screwdriver

through the plastic and foam at intervals, so that you have three holes along each side and two holes at each end.

The seed mixture recommended by Latrobe University is 1 part sand: 1 part peat moss: 1 part perlite or vermiculite.

I use leaf mould instead of peat moss but, in any case, sieve the sand and peat moss through a 1/4" sieve, and mix it all in a clean barrow or a 4 litre ice-cream container, using water to get it damp but not wet. Fill the yoghurt pots with the mixture and tamp it down gently. Then scatter the seeds on the surface and spray them with the mist sprayer to get proper adhesion to the surface. Cover the seeds with the 1/8" sand, spray again, label, and place in the seed box. Cover the seed box with a flywire screen which has timber slats hanging over the sides to keep it tight — as a protection against hail and rain. Put the empty pot at one end and pour water into it until the water overflows. Place the foam box on the stand, put it in the sunniest place, and leave it there until the seeds germinate and are ready for potting.

The potting mixture recommended by David Beardsall of the Knoxfield Horticultural Institute is:

1. 3 parts 3mm aged pinebark : 1 part river sand.
2. 3gm to 1 litre Osmocote N 18 : P 1.6 : K 8.
3. 1gm to 1 litre of Dolomite.
4. 1/2gm to 1 litre iron sulphate (optional).

Don't add any extra fertilisers or the roots will not leave the mixture when planted, and don't mix any more than you need for the plants to be potted. Pot the seedlings into 2" tall tubes or 3" round pots if you have them, otherwise into 2" round tubes or cafe bar cups or yoghurt pots, but make sure you have put holes in the bottom of the pots either with an electric soldering iron, an electric drill or an iron rod heated in the fire. Label each pot and put them in foam boxes which have not been trimmed. Cover them with a sheet of glass for the first 2–3 weeks, and place them in a position out of the direct sun.

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## GREENHOUSE TEMPERATURE STABILIZATION (NO HEAT)

by Syd Oats

Our greenhouse started its life as a shadehouse of shade cloth around and over six treated pine poles, area 4 x 2 metres. The rain on the top used to collect in the mesh and then drop in big drops, washing out seed and seedlings. The next step was to cover the top with nylon reinforced plastic.

Then we had a very severe frost, – 3° to – 7°C, for three consecutive days, which wiped out 80% of the contents, amounting to hundreds of plants. Next I lined the structure with plastic sheets — just the cheap stuff used for packing. This worked okay for about a year until the sun and the wind caused it to break down.

My last effort was to place frames between the poles, and line the inside with good quality UV stabilised igloo plastic in 1/3 metre rectangles, so that it is easily repaired. Now it works really well in summer but gets a bit too cool in the winter for seed raising. To try to stabilize the temperature I placed two 200 litre drums (44 gallon drums) under the bench on blocks (our benches are chest high). The end with the large bung is 4 or 5 inches higher than the other end, with the large bung uppermost. The whole thing was wedged so that it couldn't roll, then filled with water until it ran out the bung hole. Then the bung was replaced.

Now the temperature of the tank is always 4–5 degrees warmer than the reading on the thermometer hanging on the wall 3 ft above the tanks. In mid-June we had – 1° to – 3°C, and not once did the temperature go below zero on the wall, and the tank stayed at 5–6°. Over the last eleven days the wall temperature has averaged 5.18°, the tank 9.36°.

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## NOMENCLATURE OF *MICROSERIS*

*Microseris lanceolata* (Walp.) Schultz-Bip., Jahresber. Pollichia 22–24: 310 (1866)

*Microseris scapigera* sensu W.M. Curtis (1963) = *Microseris lanceolata*

(Ref: *A Census of the Vascular Plants of Tasmania*. ed. A.M. Buchanan [1995] Tasmanian Museum and Art Gallery)

*Microseris scapigera* sensu J.H. Willis 2: 768 (1973) = *Microseris aff. lanceolata*

*Microseris aff. lanceolata* (Basalt Plain)

*Microseris aff. lanceolata* (Alps)

*Microseris aff. lanceolata* (Foothills)

(Ref: *A Census of the Vascular Plants of Victoria* ed. J.H. Ross [1993] National Herbarium of Victoria)

**MUELLERIA Vol. 9, (1996)**

There are three articles on Asteraceae in this year's *Muelleria*. Volume 9 is in the AD SG library and is available to members with a particular interest in any of the following subjects:

1. Australian alpine scapose radiate taxa of *Senecio* (Asteraceae), Belcher, R. O., 115–131.

Two keys are provided :

- The key to radiate taxa of *Senecio* delineates *S. pinnatifolius* var. *pleiocephalus*, *S. pectinatus* and varieties, *S. leptocarpus* (Tas, ? NSW, ? Vic), *S. primulaefolius* (Tas) and *S. papillosus* (Tas).
- The key to varieties of *S. pectinatus* identifies var. *major* (ACT, s-e NSW, n-e Vic), var. *pectinatus* (Tas) and var. *ochroleucas* (Tas).

2. A review of the *Erigeron pappocromus* Labill. complex, Forbes, S. J. and Morris, D. I., 175–189.

The authors discuss the generic state of the complex, and provide a key to the identification of nine species: *E. bellidioides*, *E. gunnii*, *E. nitidus*, *E. paludicola*, *E. setosus*, *E. stellatus*, *E. tasmanicus* and *E. trigonus*. Species descriptions are provided, and illustrations of whole plants of four of the species.

3. Chromosome number determinations in the Australian Astereae (Asteraceae), Watanabe, K., Short, P. S., Denda, T., Suzuki, Y., Ito, M., Yahara, T. and Kosuge, K., 197–228.

The authors have made determinations of chromosome numbers from 200 populations attributed to 99 species or infraspecific taxa of ten genera including *Brachyscome*, *Calotis*, *Erodiophyllum*, *Kippistia*, *Lagenifera*, *Minuria*, *Olearia*, *Solenogyne* and *Vittadinia*. Polyploidy is reported for the first time in *Brachyscome cardiocarpa*, *B. dissectifolia*, *Calotis anthemoides* and in the *Olearia phlogopappa* complex. Some taxonomic possibilities are discussed.

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**MEMBERS' REPORTS**

**Jeremy Trahair** from French's Forest (NSW) writes on 16/6/96: 'Until recently I haven't seen large numbers of Australian daisies in the bush apart from *Bracteantha bracteata* and a few isolated *Brachyscome* spp. But this Easter we took the family camping to Namadgi NP near Canberra. The displays of wild daisies were breathtaking, particularly in the Brindabella Range. I also saw some native *Ranunculus* for the first time. I have never seen them in nurseries though — I wonder if they are available. Anyway I would thoroughly recommend a trip to Namadgi, and the camping facilities are good too.'

**Colin Jones** from Orange (NSW) writes in 6/96: 'The *Craspedia* sp. (Little Desert) was originally collected in 1989 as seed. It was planted out soon after we arrived here, and it has flowered each spring. The leaves die back, and new leaves are just now emerging.'

**Christina Leiblich** from Kimba (SA) writes on 30/6/96: 'This last year has been a trying year for plants and gardeners alike; no summer rains and so far the break of the year arriving mid-June instead of mid-May. No heavy rains as yet, and so it looks at present like another drought. Our tap water quality has been poor again as the Poldas Basin and Tod Reservoir have not had good replenishing rains.

Gardens with new soils have fared better than older soils, which have no doubt a build-up of salts and minerals. Many plants were tip burned, particularly with spray watering. Some householders have installed Care-free conditioners which eliminate the cohesion between mineral particles it is claimed, and separate the minerals and salts. I guess these are in smaller particles but not eliminated, and are better for the plants.

I have found a complete mineral mix and organic plant food helps a lot, as does ground watering (or using a sprinkler after sundown). Mulching is a must. For some non-wetting soil I will be trying some Amway LGC as I have been told it is good, and does not burn plants as some wetting agents do if used in stronger solutions.

In the Kimba Uniting Church garden, which I look after, two *Brachyscome multifida* are still doing well, as are two *Leucophyta brownii* which have a family of young plantlets to be transplanted and given away. Some self-sown *Bracteantha bracteata* have flowered and died, and others (white) are still flowering but as annuals they will not last long. Non-daisy additions are one *Hakea victoriae* and two *Kunzea pomifera*. Three beds yet to be planted will have local native plants mostly, with perhaps one or two species from nearby districts. All the beds are built up to allow for good drainage.'

**Jeff Irons** from Heswall (England) writes on 27/6/96: 'We could do with some of your winter weather here. Though things are gradually catching up, gardens are still a fortnight behind. I got fed up and sowed seeds at the beginning of May. Very little germinated. Last week we had a couple of warm days which put the greenhouse up to 80°F. The higher temperatures brought quite a lot of seedlings up.

Species which germinated at low temperatures (10–20°) were:

*Olearia* sp. (? *argophylla*) — Hanging Rock, Vic.

*Calocephalus citreus* — Captains Flat, ACT.

*Brachyscome radicans* — DSG.

*Brachyscome ptychocarpa* — Mt Canobolas, NSW.

*Bracteantha bracteata* — New England N.P.

*Microseris lanceolata* — Tas.

*Leptorhynchos squamatus* — Hargreaves Lookout, Blackheath, NSW.

*Olearia frostii* — garden ex Mt Hotham.

The germination of *Leptorhynchos squamatus* is very pleasing. My plants died about 2–3 years ago. Seed never germinated, neither did other seed from DSG.'

**Julie Strudwick** from Upper Lurg (near Benalla, Vic) writes on 2/7/96: 'I'll start with Newsletter items — firstly from the March one. In response to the Snippet from Natalie re her plants from Camerons Corner, I deliberately left a plant of *Calotis glandulosa* unprotected to see what would happen. I've had virtually no damage from rabbits in previous years (apart from daisy flowers, occasionally) but this year has been horrendous. Not only had numbers of rabbits built up but I suspect that the lateness of the autumn break has caused a shortage of the food they usually eat, e.g. they love sorrel but it is only now producing fresh growth in answer to the wonderful rain we've had in June, likewise the grasses. This year I've had to put guards round everything inside my fences as well as outside because the fences aren't rabbit-proof. Many things were decimated and even killed by the rabbits eating them right down to the ground. This happened to the *Olearia rudis* I got from Natalie so my rabbits apparently have different taste buds from hers (or were just hungrier). The *Calotis*, however, has not been touched, so that appears to be "everybody-proof". I can't comment on *Olearia pimelioides* as I had a guard around that.

Re Esma's article on "Maureen's Mystery Daisy", my plant too has ligules that are sometimes white and sometimes pink. I haven't taken particular note of what seems to trigger the colour change but *B. tatei* used to do the same thing. (I've lost it now.) It changed from white to mauve in response to more sun. I suspect the 'Mystery' would be the same. I nearly lost that too. It had done very well in the garden edging the landing behind the house for three years but then almost disappeared when other things grew and swamped it. I dug up the remaining tiny bit and put it in a pot, where it has now expanded well.

Speaking of germination after rain, I had given up on containers of seed from the smoke paper trial in summer. They had been put out and had had two lots of rain on them without result — not prolonged rain but good heavy showers. I'd decided they weren't going to do anything, and I needed the space, so I'd collected the labels (which I recycle) prior to emptying the containers. I apparently got side-tracked and hadn't got round to tipping them out when, after another rain in early May, lo and behold, one container had seedlings! Twenty-seven germinated between 6–23 May. I've potted them into two of the poly troughs and most are growing, but very slowly. I've no idea, of course, what they are, so hope they will produce some flowers.

Jan Hall and I got a couple of interesting olearias at Mildura. (No *Olearia pannosa* though, I'm afraid!) One from Langs (unidentified — simply *Olearia* sp.) seems to key out, again, to *O. ramulosa* and may be var. *microcephala*, described by Willis as "rare in Murray Mallee of far N.W." The leaves are longer than Willis' description, and I wouldn't describe the flower heads as micro but that could be because of the regular watering from being grown under nursery conditions. It will be interesting to see what it does under harsher conditions if it survives. It does have a "vestiture of woolly appressed hairs and no bristles", and came from an area they call Bronzewing up there. It doesn't seem likely that there would be two forms of *O. ramulosa* in the one area. The second plant of interest came from the Mildura Shire Nursery and was *O. axillaris* which occurred near the SA border up there. Willis describes the distribution as coastal except for Sector B of his map, which is the sector containing Ouyen, Murrayville, Wyperfeld, etc. — an interesting distribution. We were puzzled by an *Olearia* seen on the Saturday bus trip which turned out to be *O. teretifolia*. It is very different from the one we're used to, being a light yellow-green, and having a very open growth. I got some cutting material on the Monday from down towards Hattah, so hope to have some plants for distribution eventually.'

**Corinne Hampel** from Murray Bridge (SA) writes on 29/4/96: 'Last weekend John and Julie Barrie had a heap of *Brachyscome* species at the Parrakie Plant Sale (SGAP) held at the Geranium Primary School. They were very popular, including *B. 'Amethyst'*. What a gorgeous colour that is. It is very aptly named.

I had some *B. spathulata* which I thought had finished over the summer, but sure enough they have new leaves coming, as do *B. stuartii* and *B. parvula* var. *parvula*. The last two had not dried out completely but were looking a little seedy. *B. parvula* var. *parvula* is in flower. I love the colour of that one, and it does appear to be a very hardy plant.

I have a plant of *B. aff. cuneifolia* which has been going for a couple of years now. It has a lot of new growth coming and I'm debating about putting it out in the garden after I take some cuttings (hedging my bets!!). I'm never sure whether I should water the brachyscomes that die down or just let them go and hope for the best in autumn. The trouble is that they will either be on a drip line or totally dry after the rains stop in Sept/Oct. Murray Bridge misses out on any rains because of the rain shadow here unless thunderstorms come in from the north, which has not happened for the last four years.

15/5 — We had a very welcome fall of 8mm last weekend and everything looked perky and fresh (and clean!). It is amazing what useful rain does at this time of year

5/7 — We have had an inch of rain this week — absolutely wonderfully soaking! I planted up some gaps in the windbreak last week before this fall, and the ground was moist below where I was digging. This hasn't happened for at least two years. I've discovered that the possums like the leaves of *Brachyscome spathulata*, as well as the flowers.'

**Doll Stanley** from Auburn (SA) writes on 18/7/96: 'The garden is looking better since we had good rains in June after five very dry months. *Brachyscome formosa*, which I thought I'd lost, is starting to grow again, and *B. tadgellii* is flowering (wrong time surely?).

We visited our daughter recently. She had a lovely *Rhodanthe anthemoides* with deep red buds, growing in a self-watering hanging basket. It was the best specimen I have ever seen.

Our garden is patrolled by a blue-tongue lizard, and he seems to keep the snails under control. I hope he/she has a family as we are not keen on using snail bait.'

**John Barrie** from Coonalpyn (SA) replied on 26/7/96 to a query about the appearance of *O. teretifolia*, one of the plants he donated to the Group: 'The *O. teretifolia* is ex seed from Blackwood seeds, and even looks different from what we see around here. Recently John Scovalis from Primary Industries indicated its local diversity at something like 30 forms!!'

**Jan Hall** from Yarrawonga (Vic) writes on 27/7/96: 'I was so pleased to be able to attend the May meeting. Hope I retain some of the information flowing freely from knowledgeable members. It was all great, but I was particularly inspired by Maureen's garden as I'm probably most "into" the use and landscaping potential of our daisies.

Looking out the window today — a very wet day in July — I see we have several areas which could be called "ephemeral soaks" where the water lays at this time of year, and where it is totally dry during summer and autumn. We have acquired daisies by the process of what will survive. One spot was deliberately created as a dry creekbed and is mainly an area for *Lomandra* and grasses but it could take some *Brachyscome basaltica* and more *Chrysocephalum apiculatum*, which is planted all around the garden in its various forms because it's easy (I mean hardy).

The native grasslands talk was also up my alley as I have been slowly developing an area where little else will grow without a lot of watering, etc. This is, by necessity, a low maintenance garden, and I've been quite pleased with the grasses and grassland species. Some are colonizing quite nicely under the eucalypts and wattles. Amongst these are the local *Chrysocephalum apiculatum* and *Brachyscome basaltica* from Red Gum forest at Tungamah, *Calotis scapigera* from Red Gum forest nearby, and *Vittadinia cuneifolia* and *Pycnosorus globosus*. Other daisies have crept in — *Calotis* sp., *Calocephalus citreus*, *C. lacteus* and *Bracteantha bracteata* volunteers. With time we will eventually add more which are likely to survive the no watering regime — ideally some which produce a display in dry shade. It's all rather seasonal, depending on the weather.'

**Syd and Sylvia Oats** from Beaufort (Vic) write on 2/8/96: 'The seed trials are going well. I have 17 punnets of 13 types of seed, and I think germination is over now. I am starting to lose some with damping off. Our benches in the greenhouse are about chest high and, viewing the seedlings through a binocular optivisor that I wear on the forehead, it is amazing what terrible delinquents some of the seedlings are. They disobey the laws of nature, sending their roots in all directions, including straight up. I spend quite a lot of time teaching them to mend their ways with a fine knitting needle, making little holes to send them in the right direction.

I was astonished that some of the *Rhodanthe* did not have a sharp root when they started to grow, but rather a blunt end which did not form fine roots until it was right out of its case, complete with dicotyledon.

I felt I had to get the seedlings out of the seed mix very quickly as they seemed to be marking time in it, whereas some *Rhodanthe diffusa* seedlings that I had potted up are twice the height of those left in the seed mix. So most of my seedlings are getting potted on in the dicotyledon stage. There are still over 200 seedlings to be potted on. I am enjoying it very much.'

**Pat Shaw** of Macgregor (Qld) writes in 7/96: 'The early part of this year was hot and dry. When the rain did arrive in late April it just kept on and on and on — 30 inches in 10 days — so much of the back yard looked like a lake. It killed off trays of daisy seedlings (all my *Ozothamnus*). I was very disappointed when *O. rufescens* departed to wet feet, it was looking so healthy. Three plants of *Cassinia subtropica* died in the back yard wet, but three survived in the front garden and are looking good — two from the Springbrook population (seedlings) and one from the Nerang site (cutting grown). One *Ozothamnus diosmifolius* also survived in the front garden. It was bought from Gatton College, and looks white.

My seed sowing this year has been a disaster after the losses from the heavy rain. Near neighbours have a visiting cat who found the seed trays beaut to scratch in. After much searching of drawers and cupboards another lot of seed was sown in a mixture of sharp sand and peat moss and the only seed to germinate was *R. anthemoides* (100%) and *R. chlorocephala* ssp. *rosea*, two trays full of each species in 6 days. Planting was done on June 3rd. Not one brachyscome, not even one *Bracteantha bracteata* (annual form) from two commercial packets!

I'm pleased to see John Story has joined ADSG. Members travelling through Toowoomba would be well advised to visit his garden, also the Ray and Gwen Norris garden at Capalaba, and the Neilson's garden at Loganholme. All three are in the Open Garden Scheme.

Fresh cuttings taken of *Brachyscome* 'Maureen' are looking great potted on in a commercial mix of cow, sheep, fowl manure, mushroom compost and blood and bone. The bad news is it costs \$6.00 a small bag.

I have had a large Cook Island Pine removed from the front garden, 200 ft high, leaning towards the house and dropping a mass of foliage on the plants. There is now more winter sun in that area.

18/8/96: The removal of the Cook Island Pine has resulted in four brachyscome seedlings appearing in this past week, each one looking like *B. segmentosa*. I also found a *B. multifida* type in a side garden (nowhere near any brachyscomes) and two other seedlings in other parts of the garden. Earlier collections are a compact form of *B. multifida*, a pink form of *multifida* like 'Pink Haze' but the foliage a bit different, and a cross between *B. 'Amethyst'* and the normal form of the lavender *B. multifida*.

When I showed Irene (Cullen) *B. 'Maureen'* in the 5 in 1 potting mix, she hurried home to get out the bag of Dynamic Lifter (fowl manure) and spread it around her daisies. I am experimenting with manures. My son in law brought eight bags of cow manure. The first delivery I spread on top of the soil and then covered with mulch and planted *R. chlorocephala* ssp. *rosea*, the second delivery last weekend I'm spreading on top of the soil around the brachyscomes, and Hoof and Horn around the *Bracteantha bracteata* annual forms and *R. chlorocephala* ssp. *rosea*. I'm waiting for a delivery of horse manure, fowl, and pig.

Irene says she mentioned to you about our coming display at the Brisbane Flower and Garden Show on 29th August to 15th September. Titled "Going Goannas", it is a floral sculpture made of chicken wire netting filled with polyurethane and wrapped in hessian. The front of one of the *Varanus sgapiensis* (a new species) which is residing in my garage at present has the hessian covered in melaleuca bark. The back is covered in yellow and lemon *Bracteantha bracteata* and *Ixodia* flowers sent up from South Australia. His backbone is eucalypt gumnuts, mainly *E. ptychocarpa*, with the smaller *E. torelliana* nuts over his head and down the sides. His feet are steel spikes with *Banksia integrifolia* cones drilled and glued over the spikes. His mate (both 6 ft high) is being prepared somewhere at the Gold Coast, and will be different. Both will stand upright on steel plates either side of a steel spring centrepiece, 6' x 4', with plates holding 37 bowls of Australian flowers. The worst part is getting the glue off the fingers after having a session of glueing on the daisies and gumnuts.'

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## **SNIPPETS**

- The following paragraph is taken from an article by Paul Walker, titled 'Nursery Profile — Binalong Nursery'. It appeared on p. 9 of the *Journal* of SGAP Canberra Region Inc., Vol 10 No. 7 March 1996. 'Between 16 and 36 prepared cuttings are placed in each 100mm square pot containing a mixture of 4 parts perlite to 1 part coco-peat to which a small amount of hoof and horn fertiliser is added. There is said to be a nitrogen drawdown by coco-peat and while I am uncertain about the safety of any chemical fertilisers in a cutting mix I have had no problems with the hoof and horn with its analysis of 12: 1: 0. This same mixture is used for raising seed which is usually covered with fine vermiculite.' If anyone using coco-peat has noticed leaf yellowing in their seedlings, they may like to try the Binalong method.
- It is reported that an effective poison against ants, caterpillars, cockroaches and cabbage moths has been developed by Daniel Oxenburgh in Perth. It is a combination of pyrethrum, garlic, chilli and plant

oil which is not poisonous to animals or humans. The product's name is Beat-A-Bug, and it was funded by a new enterprise incentive scheme (NEIS) — a Department of Education, Employment and Training initiative. Mr Oxenburgh may be contacted on (09) 299 8009.

- John Clark (of 'Dam Daisy' fame) says he went to the daisy patch in the dam in early July and found a number of new seedlings coming up. They proved that they must be hardy to frost as there was no damage to them after three severe frosts in a row. When they get some dry weather he plans to spray the dam surrounds to kill the grass so that the progress of the daisies may be followed with less fear and trepidation. John wonders whether the seed might have been deposited by wild ducks that had grazed on plants elsewhere. In September John sent another bulletin, and some prints to prove that the daisies are growing happily in the water of the dam. He says the plants had been inundated for a month but were showing no signs of stress.
- A new book called *Gardening On The Wild Side* by Angus Stewart has a very pleasing paragraph on AD SG. The book seems full of valuable information, apart from the fact that the description of *Rhodanthe anthemoides* 'Paper Baby' has been confused with that of 'Paper Cascade'.
- Jeff Irons (from England) reports that during archaeological work at a monastery the top soil was removed, then replaced. After replacement colonies of Weld and Mullein appeared. Since the monasteries were dissolved in 1538 the assumption is that the seed has lain dormant since then.  
Weld = Mignonette = *Reseda odorata*, a traditional strewing herb.  
Mullein = *Verbascum*, can be dipped in tallow and used for flares.
- *Eucalyptus willisii* has the common name of Jimmy's Shining Peppermint in some of the Anglesea references observed lately. Isn't that a good name for a small, cheerful-looking tree?
- Tommy Garnett has compiled *A gardener's guide to the climatic zones of Australia*, in which he has presented and commented on maps showing the mean average rainfall for all parts of Australia, the incidence of drought, and a variability index. Six climatic zones have been identified, and ranges of rainfall, frost and temperature have been allied with the zones for certain representative towns or cities within Australia which are likely to have the greatest number of gardeners. Since the majority of garden books originate in the Northern Hemisphere (where ten climatic zones have been identified for Europe and eleven for North America), Australian gardeners growing exotic plants have had to try to translate the plant information offered into suitability for their own climates. This book is invaluable for such a task, and is very useful for those growing Australian plants in that an indication of the climate in which the plants occur in nature may be quickly found. The importance of microclimates is stressed. There are many unexpected facts to be gained from this inexpensive booklet. Tommy created the 'Garden of St Erth' in Blackwood, Victoria, was Editor of the Garden Section of *The Age* for many years, and is the author of several gardening books. This book has been published by the Australian Garden Journal Pty Ltd, and is available from Warwick Forge for \$8.00 (plus postage).
- The Department of Communications and the Arts has written to inform AD SG that they are not proceeding with the implementation of the Educational Lending Right scheme due to budget restraints. This will mean that the income we receive from book sales will be less than we had hoped.
- The Zoo has invited AD SG to put on a display under a 'secure marquee' in the Butterfly House Courtyard as part of the Garden Celebration Weekend on 12/13 October.
- Lotte von Richter (pers. comm.) has said that Flannel Flowers have a positive germination response to the smoke-impregnated seed primers. Orriell Seed Exporters hold the sole agency for the sale of these primers. The address is 45 Frape Avenue, Mt Yokine, Perth, 6060, Tel. (09) 344 2290, Fax (09) 344 8982.

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## LETTER FROM THE LEADER

Dear Members,

Kind John Barrie called in with a box of beautifully grown plants from South Australia and other places for distribution among the members. Julie Strudwick was awarded the one and only *Olearia pannosa* for valour and determination, Jenny Rejske was given three olearias to nurture her reawakening interest in that genus, and I have taken one of the *Angianthus tomentosus*. Its white woolly leaves look quite different from those of John's last gift of *Chrysocoryne pusilla* which I identified as *A. tomentosus*. The label says 'from Nindethana seed'. It has made me quite nervous. Joy Greig offered a good home to two senecios and *Cassinia laevis*. Our thanks to John. It is always Christmas when he and Julie call.

The Study Group Leaders' Workshop held in Melbourne in July to draft guidelines for Leaders was a most interesting exercise. As ASGAP Study Group Co-ordinator, Helen Morrow presided over our deliberations with her usual friendly efficiency. She and Tim even provided delicious hot soup and sandwiches for lunch. Six leaders were present, and about eight others had sent ideas in writing. It was astonishing to hear how different were the methods by which leaders ran their groups. I was even more grateful for the assistance you all give me, especially the core of Melbourne



**NOVEMBER MEETING:** Saturday, 9th November at 2.00 pm at 662 Wyndham St, Shepparton, 3630.

Tel (058) 213 443

Members who have arrived in Shepparton on Friday night may like to join the group going out to a modestly priced eating place chosen by Gloria. Contact her for the address and time.

**PROGRAM:**

Saturday:

- 9.30am Visit to David Shiells' Wakiti Nurseries (5km east of Shepparton on Midland Hwy). Bring own lunch to 662 Wyndham Street.
- 1.30-2.00 pm Plant sharing (if any left to share).
- 2.00 pm Meeting opens, Show and Tell. Short talks by members. Progress of Everlastings Project. Members' questions.
- 6.00 pm Dinner, very kindly provided by Shepparton contingent.
- 7.30 pm "Denizens of the Daisy Garden" — talk on pollinating insects by Julie Strudwick. Slide night — members limited to fifteen slides (otherwise we'll be there all night).

Sunday:

- 9.00 am Leonie and Geoff Carrol's garden (morning tea provided).
- Later Lisa and Rocky Fazzaloro's garden
- Later still Kaye and Ian Dempsey's garden (barbecue lunch)

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**CHRISTMAS BREAK-UP AT BEAUFORT**

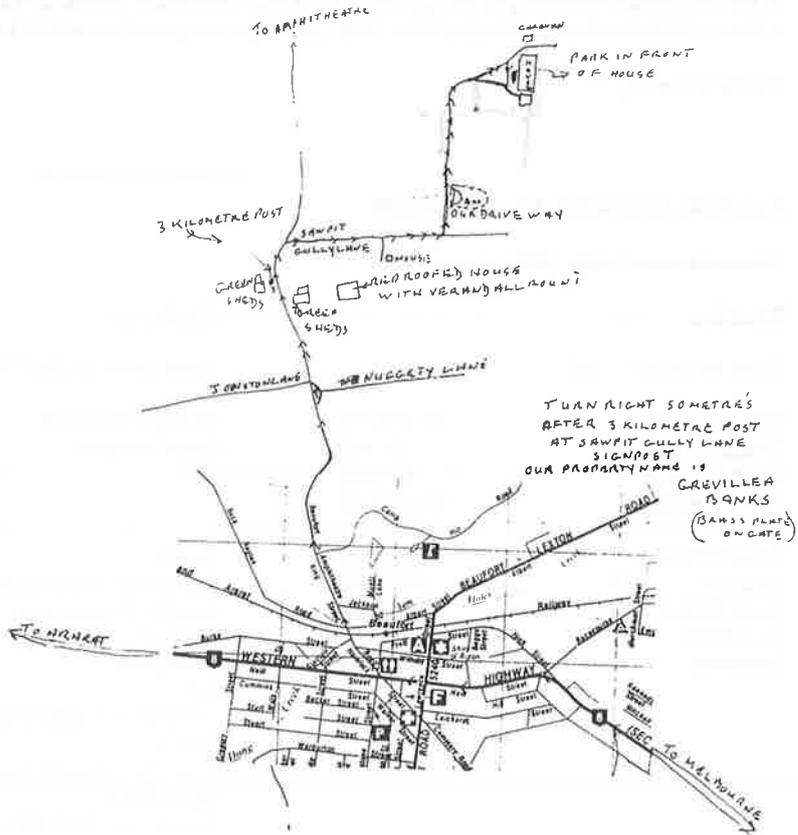
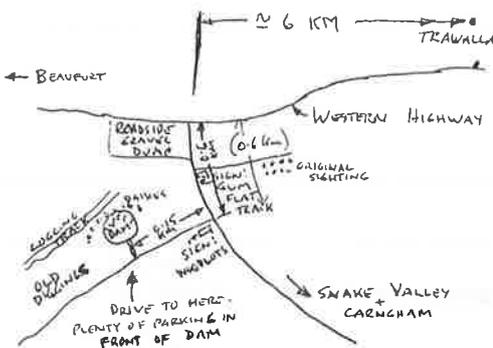
Syd and Sylvia Oats have invited AD SG to visit their garden and bush block on **Sunday, 1st December**. (We had thought of combining it with a forest visit in the Ballarat area over the weekend visit but it was considered to be too close to Christmas and to the Shepparton weekend.)

We will meet at the dam at Trawalla State Forest at 10.30 am to view *B. diversifolia* and other species. We will then repair to their property near Beaufort (about ten minutes away) to arrive there at about noon. Members will bring their own lunch, tea and coffee will be provided. Syd says there will be plenty of peas, orchids and daisies flowering still. Travelling time from the eastern suburbs is about 2 1/2 hours. Anyone wishing for a lift should contact Judy.

See Syd's mud maps below.

Oats' property in Sawpit Gully Lane at Beaufort

Trawalla State Forest dam site



**NEW MEMBERS:** A warm welcome to the following new members:

Maree Goods, 'Hillside', RMB 4659, Horsham, Vic. 3401.  
 Morton Kaveney, P.O. Box 73, Ocean Shores, NSW, 2483.  
 Fred Mazzaferri, 64 Roselea Street, Shailer Park, Qld, 4128.  
 Thelma Ovenstone, C/o P.O. Deepwater, NSW, 2371.  
 Welcome back to Max and Regina McDowall, 10 Russell St, Bulleen, Vic, 3105

**SEED DONORS** Thank you to the following members and non-members who collected for the Group or who donated seed to us: Judy Barker, Joy Greig, Jeff Irons, Colin Jones, Christina Leiblich, Peg McAllister, Natalie Peate, Mark Savio from Mt Annan Botanical Garden, Esma Salkin, Maureen Schaumann, Pat Shaw, Doll Stanley, Ngaire Turner.

**SEED BANK** \* Species marked with an asterisk will be retained for the Everlasting Project.

Seed is free to members and for sale to non-members at 80c per packet plus postage. (After many years the price has increased in line with the rise in price of commercial seed and of seed envelopes.) Please send a stamped, self-addressed envelope (230mm x 100mm) with each request for seed, and be aware that most seed orders require 70c stamps for mail within Victoria and 75c for interstate mail. Send to Esma for provenance seed, and to Judy for garden or commercial seed (addresses on p. 37), but if both types of seed are required one request to either will suffice.

**Garden or Commercial Seed**

ADDITIONS: *Bracteantha bracteata* (white hybrid, white hybrid tinged pink on outer bracts, cream hybrid)  
*Craspedia* sp. (Lankeys Plain, creamish flower-head), *Craspedia* or *Pycnosorus* sp. (Little Desert Vic), *Leucochrysum albicans* subsp. *albicans* var. *albicans* (Longwood Vic),  
*Podolepis neglecta* (Hat Head NSW), *Pycnosorus thompsonianus* (Delungra NSW)

DELETIONS: *Brachyscome nova-anglica* (Mt Kaputar NSW), *Minuria leptophylla*.

We would be grateful if members could provide seed of the above two species, and we also need more seed of the following: *Calocephalus citreus*, *Pycnosorus chrysanthes*

**Provenance Seed**

ADDITIONS: *Anemocarpa podolepidium* (Marree 9/96), *Brachyscome ciliaris* (Tibooburra 9/96),  
*Cassinia* sp. (Moseley Nobs SA 4/96) \**Hyalosperma glutinosum* subsp. *glutinosum* (Kimba area, SA),  
 \**Leucochrysum albicans* subsp. *albicans* var. *albicans* (Lithgow NSW).  
*Olearia glutinosa* (Blairgowrie Vic 3/96), *Olearia pannosa* (Yorke Peninsula SA),  
*Ozothamnus retusus* (Wudina Road SA 4/96). *Podolepis jaceoides* (Mudgee NSW).  
 \**Rhodanthe corymbiflora* (nth of Kimba SA)

DELETIONS: *Brachyscome cheilocarpa* (Exmouth), *formosa*, *iberidifolia* (Perenjori WA),  
*melanocarpa* (NSW), *microcarpa* Hat Head), *nodosa* (Qld), *nova-anglica* (Mt Kaputar), *procumbens* (NSW), *smithwhitei* (NSW, Qld), *tatei* (SA 10/92), *trachycarpa* (Qld).

*Minuria leptophylla*. *Olearia brachyphylla*, *ciliata* (Grampians), *magniflora*, *rudis* (WA).

*Pycnosorus pleiocephalus* Mt Annan Botanical Garden very kindly donated the following species: \**Chrysocephalum apiculatum*,

\**C. pterochaetum*, \**C. semipapposum*, \**Rhodanthe anthemoides*, \**R. chlorocephala* subsp. *rosea* and subsp. *splendida*,  
 \**R. corymbiflora*, \**R. floribunda* and \**R. humboldtiana*.

**Request for Provenance Seed for Seed Bank**

We would be grateful if any member could supply any of the following species:

*Calocephalus citreus* (Vic).

*Chrysocephalum apiculatum*, *eremaeum*, *semicalvum* ssp. *vinaceum*, *semipapposum*.

*Craspedia variabilis* (syn. *C. glauca*).

*Helichrysum scorpioides* (coastal and dry sclerophyll forest form).

*Podolepis jaceoides*. *Pycnosorus chrysanthes*, *globosus*.

**Tip: when collecting seed from seed head**, e.g. from *Helichrysum scorpioides* or *Podolepis* spp. — take hold of head of seed, invert as you remove from bracts. Mature seed is easily seen. Discard trash and seed attacked by insects. Please label with the location and date of collection.

**SUBSCRIPTIONS**

Subscriptions are \$7.00 per year for members within Australia and \$14.00 per year for overseas members. Cheques should be made payable to the Australian Daisy Study Group and forwarded to Judy Barker or to our Treasurer, Bev Courtney, (addresses on p. 37).

**FEES WERE DUE ON 30th JUNE 1996.** This is the second reminder this year because I forgot to mention subs in the March newsletter. A red cross in the box will mean that you are overdue and that regretfully your name must be removed from the membership list. This list is full, and there is a waiting list to join AD SG. If any member wishes to resign would they please inform Judy or Bev as soon as possible?



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