

ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTS

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THE AUSTRALIAN DAISY STUDY GROUP NEWSLETTER NO. 77*Craspedia* sp. (inland form) x 3.5

(illustrated by Gloria Thomlinson)

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WEB PAGE <http://asgap.org.au/daisy.html>



Leaders of ADSG past and present celebrating our 25th birthday — from the left, Joy Greig, Maureen Schaumann, Judy Barker, Natalie Peate
(Photograph taken by Graeme Nicholls)

LEADER'S LETTER

Our 25th anniversary was celebrated at the Christmas break-up in November at Karwarra Gardens where we were delighted to give Maureen Schaumann, Australian Daisy Study Group originator, Honorary Life Membership of the ADSG. A framed certificate created by Gloria Thomlinson and her daughter was presented to Maureen to mark the occasion. Barbara Rooks provided a beautifully decorated cake, which Maureen cut and we all enjoyed along with other goodies provided by members. Maureen gave us a potted history of the Group and several others added their reminiscences. Many early members of the Group were present and we were delighted that Gloria and both Joy and Neal Greig were able to make the trip. Other members were thanked for their contributions, but primarily Judy Barker for her magnificent 16 years as Newsletter Editor and John Webb as our Treasurer. Graeme Nicholls was official photographer for the occasion.

On January 16th I attended morning tea at the Royal Botanic Gardens in South Yarra and met Ross Dennis who is this year's *Esma Salkin* student. Over the summer period Ross, under the guidance of Neville Walsh, is studying the *Leucochrysum albicans* complex and looking at the relationship between it and *Leucochrysum molle*. We look forward to hearing about his findings at our weekend May meeting.

While at morning tea, Neville told us that when he was cycling along the Ormeo Road near Mt Howitt, he found an unusual cassinia, *Cassinia nivalis*, only recorded as being found there once before, and by none other than Esma Salkin.

Members will be delighted to hear that Andre Messina has gained a PhD studentship and will be studying the variable *Olearia phlogopappa* complex. This outcome would have thrilled Esma and we look forward to maintaining a contact with Andre and hearing about his progress. Andre's work during last summer's Esma Salkin studentship studying the *Olearia ramulosa* complex was excellent, and almost certainly contributed to his gaining the PhD studentship. It is pleasing to know that an APS study group can have an influence in this way, helping our future botanists and furthering the study of Australian plants.

The drought continues and fire is threatening areas where many of our members live. On the outskirts of Melbourne where I live, we have all been urged to make a fire plan and have prepared accordingly. Gardens are dying and local birds and small animals are seeking water and food from private property. Fortunately we had 10mm rain yesterday, our first for January, and hopefully more will come tonight, both reducing the fire danger and revitalizing the landscape.

This year we have planned an interesting program starting at **Judy Barker's on February 20th** with demonstrations of wiring everlastings by Maureen and Judy.

Please note that our March meeting date has changed back to the original date of March 20th. This will be held at Peg McAllister's as planned where we will be learning about Peg's special techniques for dividing daisies and other Australian plants.

On April 17th we are being introduced to phylogenetics under the guidance of Max McDowall at Max and Regina's house.

The weekend meeting on May 19th and 20th at the Peate's place promises to be very interesting with two speakers on the Saturday. Firstly Ross Dennis will speak about the results of his research, followed after dinner by Jan Hall describing how she and Alan set about creating a new drought resistant Australian garden. Local garden visits are planned for the Sunday.

Again we urge country members to attend some meetings, particularly our annual weekend one, and can usually offer accommodation with city members.

Greetings to all,

Natalie.



Habit of *Brachyscome tatei* by Gloria Thomlinson

COMING EVENTS — Locations and Topics for 2007

We meet at 10.00am and bring our lunch. The meeting's business and/or activities begin after morning tea. If we have surplus plants we swap or give them away. Please bring Show and Tell specimens if you have them. We try to answer any questions that arise. Meetings generally end between 1.30 and 3.00pm.

1. **20th February** — Judy Barker's, 9 Widford St, East Hawthorn. **59-G-3**. 9813.2916
* Wiring everlastings.
2. **20th March** — Peg McAllister's, 61 Diane Cres., Croydon. **37-E-11**. 9726.5061
* Division of daisies (if the weather is appropriate).
3. **17th April** — Max and Regina McDowall's, 10 Russell St, Bulleen. **32-H-16**. 9850.3411
* Phylogenetics.
4. **19th and 20th May** — Natalie Peate's, 26 Kardinia Cres., Warranwood. **36-C-9**. 9876.3648
* Weekend Meeting starting at 1.30pm, Saturday.
* Saturday, Esma Salkin student report on *Leucochrysum* spp. studies, Jan Hall describing her drought resistant garden.
* Sunday, garden visits.
5. **19th June** — John Armstrong's, 25 Grove St., Vermont. **62-K-4**. 9874.4132
* The genus *Calotis*.
6. **17th July** — Pat and John Webb's, 99 Fiddler's Green, 57 Gloucester Rd, Berwick. **111-C-9**. 9769.7406
* Outlines of some lesser known daisies.
7. **21st August** — Brenda Moore's, 62 Ennismore Cres, Park Orchards. **35-D-12**.
* Continuation of Outlines.
8. **18th September** — Maureen Schaumann's, 88 Albany Dve, Mulgrave. **80-D-2**. 9547.3670
* The genus *Podolepis*.
9. **16th October** — Anne Kerr's, 4/35 Johnstone St., Malvern. **59-D-11**. 9509.4948
* The genus *Pycnosorus*.
10. **20th November** — Location of Break-up undecided.

MAUREEN'S MEMORIES OF FOUNDING AD SG

Joy Cook and I started the Daisy Study Group in 1981. Jeanette Closs, Study Group Coordinator, recommended I choose only one genus to study because daisies were one of the largest group of plants in Australia and many a Study Group had fallen by the wayside by tackling too much at one time. *Brachyscomes* were chosen for their long flowering period and, as I loved *Helipterum roseum* and wanted to include an everlasting, I also picked *Helipterums*. Hence the *Brachyscome/Helipterum* Study Group was formed.

The first newsletter was written in October 1981. I had thirteen members and seed of 5 *brachyscomes* and 1 *helipterum* in the Seed Bank.

Before the second newsletter came out in March we had spent a long weekend at Mt Buller with Waverley SGAP, and the Seed Bank had increased to 25 spp plus six new members.

1982 saw the commencement of microscope meetings at the Feltham's home and at Judy's, then Peter Lewis arranged for these meetings to be held at Scotch College on a Sunday afternoon. We were having difficulties at that time in identifying some species, so at Frank's suggestion we started a Seed Library.

(At this point Maureen showed us some samples of what we had done in the past. We placed a curtain ring about three-quarters of the way along a glass microscope slide put in one or two seeds and filled the hole with resin. Another method placed one or two seeds between two slides and taped the ends tightly with Magic Tape. Later the illustrations for *Australian Brachyscomes* were cut out, each one pasted to a playing card, and kept in alphabetical order. A full set almost used two packs.)

Now my seed library is kept in cellophane packets. The *Brachyscome* species' seed has all been beautifully drawn by Gloria for easy identification and Michael Marmach has made detailed photographs of some of the *brachyscomes* and many of the everlasting daisies.

1982 also saw our first Daisy Display at the Waverley SGAP Flower Show. We had 21 feet of bench space and sold \$47.50 worth of seed. Over the next four years we staged 17+ daisy displays around Melbourne and country areas, taking \$126.69, less commission, for seed at one of the Angair Shows. After one Melbourne Wildflower Show Graeme Purdy of *Your Garden Magazine* wrote about our display and Daisy & Co. in the Melbourne *Sun* (see p. 5). At another flower show we did 'Daisies and their uses'.

(Maureen showed us a few items made from the wood of daisies — two necklaces, one from *Bedfordia arborescens* and the other from *Cassinia aculeata*, buttons from branches of *Cassinia aculeata*, hand-made pencils from *Cassinia laevis*, spoons carved by Alf Salkin. Vic Schaumann had a hand in making the wood products and must have been extremely patient but expressed a strong recommendation that the wood of *C. laevis* was too hard and should not be used to make pencils. Maureen had a photograph of a head dress for a bride fashioned from fresh *cassinia* flowering stems which had been glycerined and sprayed soft pink to prevent flower drop and to keep the stems pliable. Esma had dyed wool in many colours using dyes extracted from the flowers and foliage of *Xerochrysum bracteatum*.)

By then Judy was renowned as our daisy speaker, venturing as far as Newcastle. She also appeared on Gardening Shows like 3RRR — 'Get Rooted' and the ABC Garden Show.

From '83 to '87 we had six Alpine Field Trips (to Mt Buller, Falls Creek, Jindabyne, Bogong High Plains and Mt Baw Baw). We had weekends to Ulupna Island, Shepparton and Apollo Bay. We had day trips to Mt Helen, Werribee/Little River/Truganini Cemetery, Vic Rail, Lara, Lake Mountain, Bush Gems, Otways and Mt Selwyn.

Melbourne members propagated over 100 daisies for the Organ Pipes National Park revegetation scheme.

After publicity given to the Study Group in *Australian Plants* in November 1984 I had to limit membership to the Group and would only accept active members when vacancies occurred. (Bill Owen was heard to say that it was easier to join the Melbourne Cricket Club than Daisy & Co.)

In July '85 we were considering publishing a book on daisies. March '86 saw Lothians agreeing to publish our book on Australian Daisies as part of their gardening series, provided it could be finished in the next few months. The manuscript was in the hands of the publisher by November '86. It was at this time that Lothian suggested a name change, believing our present name might deter prospective book buyers. Permission was received in '86 from the Study Group Coordinator, Barbara Daly, for our Group's name to be changed to 'The Australian Daisy Study Group'.

In November '87 I retired as Leader. Esma Salkin replaced me and took the Study Group to a much higher level (botanically speaking). During her leadership we published *Australian Brachyscomes*. Esma was an excellent leader and we learnt much during her reign.

by Maureen Schaumann

HEART-WARMING ARTICLE

by Graeme Purdy

Going native with 'Daisy & Co.'

ON A recent visit to an exhibition of native wildflowers, I was generally impressed by the diversity of the plants on show, but particularly attracted to one colorful display.

There on the benches on three sides of a small enclosed area were masses of daisy flowers, shimmering in shades of pink, gold, rose, white, mauve and orange and in sizes to suit every buttonhole.

This eye-catching presentation had been put together by a few enthusiastic members of an awkward sounding tribe, the Brachyscome-Helipterum Study Group, more affectionately known as "Daisy & Co."

They are, of course, part of the increasingly popular organisation known as SGAP, the Society for Growing Australian Plants.

Now it has often been said that Australian plants are dull or, to put it more kindly, too subtle to have any great impact on the floral scene of a cultivated garden.

Nothing could have been further from the truth when you looked at these delightful bunches of daisies showing off their sunshine colors with great effect.

The typical daisy flower that the group is mainly concerned with is found in the species of helichrysum, helipterum, olearea, brachyscome and craspedia and included amongst these are annuals, biennials and small shrubs all suitable for garden culture.

Most are easily grown from seed and many of the flowers are known as paper daisies or everlastings which, when dried, are suitable for many forms of decoration.



GORGEOUS pink everlastings, *Helipterum manglesii*, are an example of the colorful native flowers available.

Down to Earth



By **GRAEME
PURDY** of
Your Garden

THE MAKING OF THE 'DAISY BOOK'

(An account by Judy Barker, on behalf of the Australian Daisy Study Group, of why *Australian Daisies for gardens and floral art* was written and what is in it. This article was requested by Beryl Birch, editor of the *Newsletter* of SGAP Victoria, for the September 1987 issue. Beryl was one of the Group's earliest members, having joined in 1981 soon after Maureen founded the Study Group.)

In June 1981 when the Study Group began, botanical information on the daisies of each State was relatively easy to obtain from the many Floras available. At that time our botanical knowledge was almost non-existent.

Very little information, however, could be found on the propagation and cultivation of daisies or of their use in floral art; perhaps this added to our enthusiasm. After five years the Group had a great deal of experience in growing these plants. We were also painstakingly reading as many books as possible and asking endless questions. Our botany had improved over the years; it had to or we would have driven our kind and helpful botanists mad.

The book draws together simple botanical descriptions with practical information on the best methods of growing and using various species. It is based on our first-hand (and often hard-won) experiences.

At the beginning our work was confined to *Brachyscome*, *Helichrysum* and *Helipterum*, and of these three genera we had about twenty easily accessible species. After six years we have experience of one kind or another with about two hundred of the nine hundred and eighty or so species of Australian Asteraceae. We have begged, borrowed and bought seed or cutting material from anyone remotely connected with daisies, and have stopped just short of stealing (only with great efforts of will). It is very pleasing to record that more and more of our generous friends in SGAP and elsewhere are now alert to our requirements and bring us bits and pieces without even being asked to do so.

Once we had decided to write we gathered an editorial committee of seven local members (Maureen, Joy Cook, Joy Greig, Alf and Esma Salkin, Barbara Buchanan and Judy) and were then joined by John Colwill, past president of ASGAP and the Western Australian Wildflower Society, and proprietor of Harpers seed company. John gave us invaluable assistance as well as some delightful slides.

The next hurdle was finance. We had about \$50 in kitty and a plan to describe about a hundred species in full colour. Three SGAP authors, Trevor Blake, Jill Davidson and Gwenda MacDonald, most generously gave us factual information on the economics of their publications. When all this was assembled in tabular form it became obvious that we could not finance a book. Not wanting to borrow, we decided to seek a publisher.

At this point Bob Finlay came to the rescue. His advice was succinct and has proved right in every detail. We acted upon it and wrote up one chapter, three species' descriptions and our chosen layout for them, and a list of contents. Samples of slides, line drawings and a list of reasons for publishing such a book were added and the whole package sent off to Lothians. Five months had elapsed since we had decided to write the book.

Lothians indicated interest, requesting more emphasis on the gardening aspects and less technical detail so that this title could be added to their gardening series. They gave us a contract, a limit of 168 pages, and told us to go ahead. They also gave us a book called *Rose Growing for Pleasure* by Deane Ross to serve as a useful guide. We have almost worn it out.

The page limit meant that the greater the number of words, the fewer the species that could be included. In the end we had room for sixty-two species. Everyone agreed on the identity of fifty species, but the last twelve were drawn by secret ballot, with Maureen's vote counting double.

Helipterum anthemoides in all its forms was a general favourite although seldom seen in nurseries. *Calomeria amaranthoides* intrigued us for its vaunted aphrodisiac properties as well as for being a biennial. *Helichrysum rupicola* was found by the Salkins on coastal cliffs near Port Douglas in Queensland. We had grown fond of it as '*Leptorhynchos* sp. (Port Douglas)' for a long time before it was identified correctly, so it had to be included. The dear little miniature, *Helipterum jessenii*, had to miss out due to lack of space. In the eleven month interval from delivery of manuscript to book in hand, we became acquainted with many new species, some of which we would have liked to add to the list.

The chapters encompass propagation, cultivation in gardens and containers, uses in landscaping and floral art, pests and diseases, history and a little botany.

The editorial committee kept a rigid eye on every word that was written, uttering cries of 'You can't say that in a serious publication' and 'How on earth do you know that?' This treatment was exhausting but of value in

that it strengthened our arguments — or else demolished them altogether. In spite of all this, the members were still speaking to each other at the end of the project. Indeed, they had become welded into a very close unit. Most members lived close enough to Maureen to be able to meet once a week, at first for half a day, then for a full day when the pressure was on.

The manuscript was vetted first by the editorial committee, then by a botanist, and finally by a publishing editor. All alterations were taken in good part with one exception. A veto was put upon the use of those perfectly good old words 'nurseryman' and 'seedsman'. This gave us great pain and it has not abated.

We had envisaged a small line drawing for each species. Because the final drawings were of such high quality, the majority being the work of Gloria Thomlinson, Lothians decided to increase the number of pages to show them to advantage, which reduced the number of colour pages but added to the character of the book.

As this account is being written, Maureen is away hunting more daisies and we pay tribute to her qualities as a Study Group Leader. Without her great organisational abilities, her outstanding gardening expertise, her uncanny powers of observation and her courage, the book could never have been achieved.

It has taken two years from the time the decision was taken to write the book, to its appearance on the shelves. The time has been most enjoyable and instructive for us; we hope the book will be the same for the readers.

(1/1/07 — The above article was written before 1/8/87. Putting it into this newsletter has been a nostalgic pleasure. We were all young (relatively), enthusiastic and energetic. Part of a timetable of events records the following:

'1986 May–Aug. Writing! Slide selection (96 slides) 62 spp.
 Sept. Working down to dark! Manuscript delivered 24th Oct.
 Oct. Botanist's report. Do alterations.
 Nov. Editor's report. Do alterations.'

I can't see us achieving this result in two years now. Joy Greig did all the computing, being the only one of us with a computer. What a colossal amount of work she did! For all the final alterations to our manuscript Maureen and I stood at her shoulders and gave orders. Thank you, Joy.

I enjoy reading this book now. It seems fresh and full of zest. I know we made a few mistakes, as Maureen often points out, but it is cheerful reading.

Liz Macdonald was our publishing editor. We learnt much from her gentle persuasion, which stood us in good stead for the subsequent books. It was a great experience and not only that, AD SG made quite a bit of money for kitty out of it, all of which went into financing the book which followed it.)

REMINISCENCES FROM THE PAST

Gloria Thomlinson (welcomed to the Group in March 1986) told us that, some time before that date, her friend Shirley Dixon had been asked by Maureen to see if she could find the Dookie Daisy, *Brachyscome gracilis*. Shirley was not full of confidence about this foray and asked Gloria to accompany her to Dookie one afternoon. The information she had was that it had been found in the 'Hundred Acre Reserve' in open forest on shallow soils. This is public land in the Dookie Agricultural College which has been fenced off for about 30–50 years. In November 1983 N. H. Scarlett and A. H. Marshall had found the species in this acreage and had estimated that there were more than 1000 plants scattered over at least 10 hectares.

Shirley and Gloria looked for quite a while before they found a small stand of two or three tiny plants in flower at the top of a rise in the protection of a fallen tree trunk. The little plants were growing in lush grass and they were very lucky to spot them. Gloria drew them in situ rather than remove them. As they moved away along an animal trail they found lots of small plants in the open and drying off, but the leaves were still recognisable as the same or similar plants which grew at the top. These had seed and it was gathered along the length of the trail. Gloria drew the seed when she got home and looked up the description in '*A Field Guide to the Wild Flowers of South-east Australia*' by Jean Galbraith. She was optimistic that they had found the right species and they sent drawings and seed to Maureen.

What great luck for the Study Group that they had found *B. gracilis* at all, and that Gloria had drawn the plants and the seed. At that time the Book Committee was in urgent need of drawings for the mini-manuscript for our first book but none of us could draw. Here were the most delightful drawings presented to us by Gloria, who wasn't even a member of our Group. We wrote to ask if she would be prepared to do some drawing for us and the answer was yes. Fortune had really smiled upon us because Gloria has illustrated all our books

with the most beautiful, accurate drawings, spending countless hours on this task over many years. As Maureen says, "Gloria manages to emphasize the salient character of each species so that it is easily recognised and at the same time the delicacy of her drawing is maintained". We were very happy when Gloria decided to join the Group.

The Shepparton members later put on displays to promote daisies at the Flower Shows held by SGAP Shepparton. Daisies were grown in pots and the Study Group lent dried material for the display. Photographs attest to the artistry and beauty of their efforts.

Finally, on behalf of all the country members, Gloria thanked us for providing bed and board for monthly and weekend meetings, which made it possible for them to attend.

Joy Greig joined ADSG in 1981 and led the Group from November 2000 to March 2006. Joy reminded us all of the seven excellent years under Esma's leadership. She was as interested in the botanical and conservation aspects of Australian daisies as in the growing of them in gardens. Her links with botanists, conservationists and naturalists helped us all to acquire much wider knowledge of these subjects, and we embarked on another book, *Australian Brachyscomes*, under her guidance. As Joy said, one of Esma's unique attributes was that she could find almost every species she set out to collect. She either imbued us with confidence when she sent members on a daisy hunt, or we were too fearful of failure to return empty handed. In all her endeavours she had Alf to back her up, to drive her wherever she wished in a series of old cars, and to answer our incessant queries on many subjects. He was a great companion and expedition co-leader.

John Armstrong (became a member of ADSG when Beth joined in 1984) recalled happy times with Beth, wandering all over Western Australia looking for species of daisies, seeds and cutting material. One particular daisy caught their fancy near Exmouth. It was then known as *Brachyscome latisquamea*, and was growing up through acacias almost on the beach. John had taken a superb photograph to prove how large it was for all those members who felt that exaggeration was rife. He still recalls the size of the flower as 'about 6–7cm', while the Good Book notes it has heads 4–5cm across. The species has been revised by Dr Philip Short and is now *Pembertonia latisquamea* (2004. *Muelleria* 20: 53–66).

At the other extreme this diligent pair were directed by Esma to seek out *Brachyscome breviscapis* in the Streaky Bay area on the South Australian coast. Esma gave them locations and sent them off with her blessing. This was a species ADSG had never grown and the publishing date for *Australian Brachyscomes* was looming. They drove to a salt pan of quite large proportions and John asked what this species looked like and how big it was. The answer was 1–2cm. In warm to hot conditions they hunted in vain for quite a long time and finally found plants growing almost on the edge of the pan.

Such is the calibre of ADSG members — they seldom fail to find their plant.

John told us the story of collecting *Brachyscome tatei* material along the cliffs of the Great Australian Bight. Alf leaned over the edge while Esma held his feet. Someone described a river crossing while the Group were staying at a lodge organized by Natalie in the Kosciuszko National Park. It involved walking across on stones. Esma lost her footing and got very wet in cold, rushing water. Alf's only worry appeared to be that Esma should keep the camera above water. Both Salkins brought back lovely slides from these collecting trips.

One particular story we have always treasured took place in outback Queensland. Some essential bit of the car broke along a very rough road and they had to stay in Charleville for three or four days while the part was located and flown in. Rather than sit around in the caravan park this intrepid pair hired bikes and pedalled off into the countryside to seek daisies. Esma used to wear a hat with an elastic chin strap which fell behind her head under the impetus of the wind and the pedalling speed and that is how she described herself when she wrote of this exploit. On their second or third day they were closely questioned by police who could not believe their activities were not nefarious. They were suspected of being drug dealers. A more unlikely pair of drug runners would be very hard to locate.

Esma would be absolutely delighted to know that the money she earned from the royalties for the beautiful cultivar she developed, *Rhodanthe anthemoides* 'Paper Cascade', has been used to such good purpose. The Esma Salkin Studentship has now helped to finance four students to investigate aspects of various members of the Asteraceae family over the past four summer holidays. Each has made an interesting contribution to our knowledge of the species studied.

Very few ADSG meetings pass without some memory of Esma and Alf being aired or shared with our newer members.

CRASPEDIASby Jeff Irons

During a trip to New Zealand my tour party was taken up Mt Hutt. On the way up it stopped so that people could see *Notothlaspi rosulatum*. While the others were taking pictures of it I wandered off to see whether there was anything else in the vicinity. Not far away I came across a plant with a rosette of gorgeous silvery white leaves and a yellow flower head, shaped like a smaller version of *Primula denticulata*. Totally neglected by the tour guide and consequently by the rest of the party, it was probably *Craspedia lanata*. The visit showed why my efforts to grow this species had been full of difficulties. The mountain was shrouded in dense fog and our guides had told us that the area received about 200–220 days of fog a year. It was also one of New Zealand's 'dry' mountains, with an annual rainfall of about 80 inches (2000mm). The *Craspedia* was growing in a moist, almost saturated atmosphere, yet it was in very well drained soil. Quite possibly the soil was very open and well aerated near the surface, yet a short distance down it could become dense, with only small air spaces. Creating similar conditions in the rain shadow area where I live would require a great deal of effort which I was not prepared to give.

This incident was put out of my mind until recently when, in the April 1979 issue (No. 64) of "The Rock Garden" (on the society's CD of past issues) I came across Brian Halliwell's article about craspedias. *Craspedia* has long been a confusing genus and Brian had tried to make sense of their confusing names. He also gave very sound practical advice on cultivation, based on his experiences both of seeing them in the wild and of growing them at Kew. Thirteen species were listed, 8 from Australia and 6 from New Zealand, with only one common to both countries. At the time it was known that there were more species, especially in the alpine parts of Australia, but they had not been studied by botanists. Whenever a genus is found in both Australia and New Zealand questions arise about its origin. Sometimes it is an ancient Gondwanan relic. Sometimes it is a recent introduction. New Zealand's craspedias have affinities with those of the Kosciuszko region of Australia and it is believed that they result from a single post glacial introduction from Australia to New Zealand where, finding an empty land they were able to speciate. In contrast there appear to have been several introductions to Tasmania from mainland Australia.

Over 25 years after Brian's article, the identities of the Australian members of this daisy genus have largely been sorted out and an update seems to be in order. New Zealand now has 5 confirmed species but there is still much investigative work to be done. Australia has another 16 species. Three Australian species are still to be described and the Tasmanian members of the genus need further investigation. Some other mainland Australian entities are thought to be natural hybrids. In this connection it is worth noting that since grazing in the Mount Kosciuszko area has been banned the number of apparent hybrids has decreased. This is thought to be due to the lessening of disturbance of natural areas. No species is common to both countries and some of those described by Brian have been transferred to the reinstated (1992) genus *Pycnosorus*. The only one of the latter likely to be encountered in British cultivation and seed lists, always in my experience as a *Craspedia*, is the tall-stemmed and not very winter hardy *Pycnosorus globosus*. It is so different that one wonders why it was ever called a *Craspedia*. Although both genera are annual or perennial forbs, apart from the large botanical differences in the compound flower heads (only by pulling them apart can you see that whereas *Pycnosorus* flowers have a stalk, those of *Craspedia* do not), craspedias have a basal rosette of leaves and if there are any leaves on the flower stalk they diminish in size and number up the stalk. The flowers fade when they are dried. *Pycnosorus* have a few tufted leaves at the base with further leaves on the stalk. Most importantly to us, they are grown for dried flower arrangements, because unlike those of craspedias, the flowers keep their colour after drying.

I can do no better than quote Brian's description of craspedias. He wrote:

"Plants form a loose rosette from a perennial rootstock of more or less oval or pointed leaves. These can vary from being glabrous, even sticky, through varying degrees of hairiness to being covered in white wool. From the rosettes flower stems arise, usually with a few leaf like bracts, to support a single globular flower-head of the batchelor button type (a common Australian name for members of the genus is Billy Buttons).

The flower colour varies from white through cream and shades of yellow to gold and may verge towards orange. Mostly plants would be grown for their flowers; whilst at least three species have attractive foliage, in one the flowers are vastly inferior.

The small compact forms from high altitudes of most, if not all, species are desirable plants for any rock garden.

Plants are easily raised from seed, although there is always a high percentage of infertile seed in any sample; under English conditions good seed is rarely produced. It should be sown on a lime free, well drained compost in gentle heat and following germination seedlings should be potted singly into small pots as soon as

big enough to handle. All I have grown have proved to be hardy out of doors under dry winter conditions but they are intolerant of winter wet. Plant in full sun, in a lime free soil that is gritty or even in a scree and cover the hairy ones in winter with a sheet of glass. Even the non hairy ones benefit from such protection in wet districts. They make good plants for the Alpine House for while their main flush of flowers is produced in the late spring, in most species flowers can be produced erratically at other seasons. As many have thick, rather long roots, they are better grown in pots than in pans. Under pot culture they should never be allowed to dry out and a watch kept for aphids which congregate in the base of the crown where they are difficult to reach with sprays."

Wild collected seed is usually sent out uncleaned, so that one receives a mixture of fertile and infertile seeds. Often many once fertile seeds have been attacked by borers, so that an apparently full packet of seeds actually contains very little viable seed. The paucity of British seed may be due in part to the small populations usually grown by gardeners. They collect seed from a small number of plants, which in consequence has a low fertility, and over a few generations viability declines to almost zero. I try to grow at least 10 specimens of any herbaceous plant; a number way below the 25 m² usually recommended for daisies — even those that are self compatible. In gardens young plants of most *Craspedia* species are often eaten by slugs and should never be planted out in their first year. Oddly, this problem comes only with first year plants. Second and subsequent years see no problems. Pot grown plants are not attacked, even when the pot is standing on the ground. Brian wrote that he had little experience of the Australian species. I have found that they are much less troublesome than the N.Z. species and that all tried have been winter deciduous. However few will overwinter in my garden if grown in the ground. When grown in a container that is stood on the ground all overwinter with no problems.

The daisy flower has an interesting way of avoiding self pollination, which affects what we do to maximise the amount of seed produced. The stamens have united anthers which open inwards. The style grows up through the anther tube, collecting pollen on special sweeping hairs for distribution in various ways — insects, wind etc. About two days later the style end opens into two lobes, displaying the receptive surfaces of the stigma. They can then receive pollen from another flower. In some, but not all, daisies if they are not fertilised these lobes cross over one another or curl back, so reaching their own pollen and causing self-fertilisation. In the case of *craspedias* the pollen on newly opened flowers makes them much darker than the other ones. It is good practice to dab a newly opened head against an older one on another plant. This helps to ensure pollination and a good seed set.

In describing individual species I've used a mixture of Brian's observations and my own, without ascribing statements to either one of us. When visiting an area the geographic location in which a species is seen will give a good clue as to its identity. In Britain the descriptions given should be sufficient for identification of garden grown plants.

C. alba This rare species is found only on the Bogong High Plains of Victoria and a few alpine parts of New South Wales in moist depressions and alpine bogs, often growing with the leaves partly submerged. It has both narrow silvery leaves with undulate margins and white flowers. *C. leucantha* is the only other Australian species with white flowers and it has long green leaves, over 5mm wide, whereas those of *C. alba* are no more than 5cm long. It is species A (no. 336) in the book *Kosciusko Alpine Flora*.

C. alpina can form extensive drifts in alpine grass on Tasmania's mountain plateaux. There is little variation, with leaves being invariably narrow and covered with a white cotton. The flower heads, on stems up to 250mm are quite large for the size of the plant, being some 25mm in diameter and always a creamy white. Brian wrote that it benefits from scree conditions and a sheet of glass over it in winter. I find that *C. alpina* will overwinter in a raised bed filled with 'ordinary' garden soil and that when several specimens are grown together in a 12" (30cm) pot they will overwinter without any covering.

C. aurantia has pale green leaves covered with stiff hairs and orange flowers more than 20mm across. It is species F in *Kosciusko Alpine Flora*. This species often hybridizes. It affords a good example of how even the very knowledgeable can make mistakes. Seed collected by an Australian daisy enthusiast and sent to me as *C. aurantia* produced seedlings that were clearly not that species and I decided that they were *C. crocata*. On examination my initial identification was proved wrong, for their flowers had characteristics of both *C. crocata* and *C. jamesii*. Unusually for a *Craspedia* grown in Britain a group of 5 single stemmed plants produced over 700 fertile seeds, another indication of their hybrid origin. Their long flower stems (about 80cm) made them unsuitable for the alpine garden.

C. canens is a low level summer flowering species found in grasslands in the Australian States, Victoria and New South Wales.

C. coolaminica is another Australian species from New South Wales, Victoria and Tasmania, occurring in sub-alpine areas among grasses on stream flats and in eucalypt woodland. (Note: the term woodland does not have the same meaning as in Britain and signifies treed areas with a canopy cover between 10 and 30%.) Another species with long narrow silvery-grey leaves, it has smaller flower heads than the other sub-alpine species. On smooth hairless stalks up to 20cm long, they are 1–2.5cm across. In a gritty soil this has proved to be long lived and reliable in cultivation. It hybridizes with other species and silver leaved plants grown from seed collected on Lankey's Plain appear to have characteristics of both *coolaminica* and other species. Plants grown in a mixture of 3 parts grit and one of soil, that stays wet all winter, have lived for as long as 15 years, giving a bountiful crop of seed only in the year they died.

C. costiniana is found in the drier parts of alpine and high sub-alpine grassland of New South Wales. The very hairy greenish-grey leaves can be up to 12cm long and the handsome globular golden yellow flower heads are 1.5–3.5cm across, on a cream to red stalk covered with long hairs. It is species D (340–1) in *Kosciusko Alpine Flora* and is found in exposed grassland, often in the drier parts.

C. crocata occurs in moister parts of the lower sub-alpine grasslands of New South Wales' Southern Tablelands. A handsome species, its basal spoon shaped green leaves have sparse woolly hairs and a long reddish coloured stalk which, in cultivation, enables differentiation from *C. aurantia* when not in bloom. The flower heads are 1–2cm across and a reddish orange in colour, a little paler than those of *C. aurantia* and usually only about 10–15mm across.

C. glabrata is a rare Tasmanian alpine species found in a few parts of the island's Central Plateau. A location easily accessible to the summer visitor is near Ben Lomond ski village. Unlike *C. glauca*, its V-shaped leaves are green, either narrowly linear or larger at their ends. The small flower-heads, on a purplish stalk up to 30cm high, are at best only about 12mm across, with white ray florets. In the *Flora of Tasmania* (1963) it is called *C. glauca* var. *glabrata*.

C. glauca is a widespread Tasmanian species found from sea level to montane parts and needing botanical revision. The greyish or green leaves can be up to 25cm long, sometimes with a long stalk, and the almost spherical yellow flower heads are up to 3.5cm across on stalks up to 1m high.

C. haplorrhiza grows in damp spots on heavy soils in all of Australia's eastern States except Tasmania. Another non alpine species, it has spoon shaped to oblanceolate leaves with hairy margins. There can be many of the golden yellow flowers on reddish stalks, 7–15cm tall. It is the only *Craspedia* with a single tap root.

C. jamesii is another species from the lower sub-alpine-alpine grasslands of Victoria and New South Wales. The bright green spoon shaped leaves have a drawn out base, shorter than that of *C. crocata* and the golden yellow flower heads are hemispherical rather than spherical. This feature serves to identify it when in bloom and is much more reliable than trying to separate it from *C. crocata* by flower colour. The stalk is cream to crimson.

C. lamicola is found in high, wet, alpine parts of New South Wales' Kosciuszko National Park (lama means bog or fen and cola means dwelling in). It has green drooping leaves 4–25cm long and a golden-yellow flower head up to 3.5cm across, hemispherical rather than globular. The stalk is often red and woolly. It is species E (No. 342) in *Kosciusko Alpine Flora*.

C. leucantha is found in wet areas near snow patches and stream banks. This species flowers in midsummer in the Kosciuszko region. It has bright green leaves with just a few hairs on the margins. Basal leaves are spoon shaped and cream to red at the base, those on the reddish flower stalks are lanceolate. As the name suggests the flowers are a creamy white and often there is more than one flower stem per plant.

C. maxgrayi is widely distributed in alpine (and sometimes sub-alpine) grasslands in New South Wales and Victoria. The largest of the silvery leaved Australian craspedias, it has leaves up to 15cm long and a globular yellow flower head up to 4.5cm across on a reddish brown stalk. In *Kosciusko Alpine Flora* it is species C (339).

C. paludicola is a lowland species from swampy areas in NSW, Vic, South Australia and Tasmania. It is also found at Lake Mountain in Victoria and on Tasmania's Mount Wellington. A robust plant, it has narrow dark green oblanceolate leaves with a few woolly or septate hairs. The bright yellow flower heads are on stalks up to 75cm high.

C. preminghana is a Tasmanian endemic restricted to Mount Cameron West (Preminghana) near Marawah. The leaves are oblanceolate to spoon shaped, dull green above and light green below, with purplish bases. Each plant produces 1–3 of the white flowers on greenish purple stalks.

C. uniflora (var. *uniflora*, var. *grandis*, var. *maritima*). In cultivation this species is often confused with *Craspedia glauca* and can be distinguished from it by the margin of fine hairs around the leaf edges. Though older books described this species as also being found in Tasmania, current botanical opinion is that it is confined to New Zealand.

C. variabilis is widespread in forest, woodland and grassland in Queensland, NSW, Vic, SA, and Western Australia, but never in alpine areas. Plants grown from seed collected on high level grassland in the ACT have proved to be winter hardy in Britain; their yellow heads, to 4cm across, appear in early summer on 75cm stems. This species will almost certainly be split into several new ones.

Sp. 1 occurs in montane and sub-alpine grassland in Victoria. It has a few broadly spoon shaped leaves which taper to a reddish stalk and have conspicuous secondary veins. The deep orange flower heads are borne in summer and there are 1–2 per plant.

Sp. 2 is another alpine species awaiting a description and publication.

Sp. 3 is endemic to the drier grasslands of volcanic plains near Derrinallum, Victoria. A small plant, it has a basal tuft of upright spoon shaped hoary leaves with reddish narrow stalks. The pale yellow flowers appear in late winter and have reddish stalks.

Species B in *Kosciusko* (and *Kosciuszko*) *Alpine Flora* was thought to be a hybrid, but is now believed to be a good species.

Although not often seen in seed lists, nursery catalogues or gardens, craspedias are worth growing. They add an unusual touch to the early summer scene and merit more attention than has been given to them in the past. Superficially most are very similar and only the collector will want more than one species.

<i>Craspedia</i> species	appearance	basal leaves	stem leaves	florets	no. of stems	flowering time	alpine	sub-alpine	lowland
<i>alpina</i>	grey-white	lanceolate-oblong		white	1	summer	Y	Y	
<i>alba</i>	white	lanceolate-oblong	decurent	white	1	summer	Y		
<i>aurantia</i>	green	lanceolate	lanceolate	orange	1	summer	Y		
<i>coolaminica</i>	silver	linear		yellow	1	summer	Y		
<i>costiniana</i>	pale green	spathulate		golden yellow	1	summer	Y	Y	
<i>glauca</i>	green to greyish	narrow linear	green	yellow	1	summer	Y	Y	Y
<i>glabrata</i>	green	linear-oblanceolate	purplish	white	1	summer	Y		
<i>lamicola</i>	green	lanceolate-spathulate		golden yellow	1	summer	Y		
<i>leucantha</i>	green	spathulate	lanceolate	creamy white	>1	summer	Y		
<i>maxgrayi</i>	white	oblanceolate		yellow	1	summer	Y		
<i>crocata</i>	green hairy	spathulate		orange	1	summer		Y	
<i>jamesii</i>	bright green	spathulate	lanceolate	golden yellow	1	summer		Y	
<i>paludicola</i>	dark green	oblanceolate		bright yellow	1–3	spring-summer		Y	Y
<i>preminghana</i>	dull green	oblanceolate		white	1–3				Y
sp. 1	sparse leaves	spathulate		deep orange	1–2	summer		Y	
<i>canens</i>	grey-green	lanceolate			1–5	summer			Y
<i>haplorrhiza</i>	pale green	spathulate		golden yellow	1–many	spring and summer			Y
<i>variabilis</i>	pale to olive-green	narrow spathulate		golden yellow	1–several	late winter-spring			Y
sp. 2	delicate, hoary	none	linear	golden yellow	1–several		Y		

TWO DAISIES FROM THE SOUTHERN HIGHLANDS

by Ros Cornish

I, and three other members of ADSG (Jo Walker, Cathy Hook and Paul Carmen) travelled to the Southern Highlands in early December 2006. The main purpose of the trip had nothing to do with daisies — we were to meet a number of NSW National Parks and Wildlife (NPWS) officers to look at an endangered species — *Pomaderris walshii* — in a reserve near Carrington Falls. There are only 8 plants in the reserve and a further 30 or so on private land which is likely to be sub-divided. NSW NPWS has re-drawn the boundaries of responsibility of some regions so the affected officers were touring much of the Southern Highlands for a hand-over process. Because of good contacts with our regional officer in Braidwood we were invited for part of it. I should say here that Cathy and I are members of the Rhamnaceae Study Group — Jo is our Leader — so for most of the time we were on the lookout for pomaderris.

We decided to make a day of it and on the way, called in to View Point in Morton National Park, close to Wingello. Paul and Cathy had found this delightful spot on an earlier trip. It was Sydney sandstone country. We sat on giant boulders with a spectacular view overlooking various gorges, cliffs and treetops, having morning tea. We had time to explore and found a host of plants flowering which we enjoyed. We have been starved of such displays this season with rainfall in the Canberra area only about 60% of the annual average. Among plants that we found were *Pomaderris ledifolia*, *P. andromedifolia*, *P. lanigera*, *Dillwynia glauca*, *Lambertia formosa*, *Kunzea ambigua*, *Philotheca scaber*, *Banksia serrata*, *Actinotus minor*, *Isopogon* sp., *Boronia algida*, *Comespermum ericinum*, *Cooperhookea barbata* and an interesting looking daisy which I had never seen before. Paul and Cathy had found it previously and had identified it as *Cassinia denticulata*.



Cassinia denticulata

[reproduced from *Flora of NSW* Vol. 3, edited by Gwen J. Harden for the Royal Botanic Gardens Sydney (1992), with permission of UNSW Press.]

It can be an erect shrub to 2m but this one was small and young. It had broad, oblong, stalkless, slightly recurved leaves about 2cm long and 5mm wide, with toothed margins. The upper surface was bright green, shiny and a bit sticky, while the undersurface was pale with a mat of woolly hairs. We didn't see it flowering but the *Flora of NSW* describes the inflorescence as "a dense corymb 2–10cm diam; heads 2–4mm long, 2–4mm diam. Involucral bracts in 4 or 5 imbricate rows, inflated and spreading, innermost broadly clawed, hyaline above but with an opaque, creamy-white tip. Florets 12–14, pale yellow." It flowers in spring to early summer and grows in dry sclerophyll forest on sandstone and sandy soils, chiefly from the Hawkesbury River to Fitzroy Falls. According to *Encyclopaedia of Australian Plants*, it is an attractive species, adaptable and prefers well drained light to medium soils, with dappled shade or partial sun. It is also frost tolerant. The photo in *Native Plants of the Sydney District* makes me think that it would be worth trying to grow as it is indeed an attractive plant.

After lunch and a quick walk looking for another pomaderris in Morton National Park, near Bundanoon, we met with the NPWS officers and trekked in to see *P. walshii*. It was on the banks of the upper part of the Carrington River, looking very vulnerable. We were only a short distance from the reserve boundary and could hear traffic noise. After discussing possible conservation measures the officers left on their tour and we continued on to the Carrington Falls picnic area and decided to do the walk to the falls.

At one of the viewing points we saw a striking daisy which none of us recognised. From its appearance we assumed that it was an olearia. It was about 1m tall, quite bushy with large glossy leaves and white daisy flowers. It looked very lush. We found more of it as we explored other lookouts. On our return home we all looked up various books and concluded, separately, that it was *Olearia elliptica*. Once again, the photo in *Native Plants of the Sydney District* was spot on, showing the glossy leaves and crowded flower head. Apparently, it can reach 2m tall and is "the only Daisy-bush in the area with such broad hairless leaves". Its common name is Sticky Daisy Bush. It has resinous young growth and the upper surfaces of the young leaves are also resinous and strongly aromatic. According to *Encyclopaedia of Australian Plants*, it "lacks strong ornamental characteristics". I disagree — any plant which looks so lush and glossy with large leaves and numerous terminal flower heads would be useful in a garden. It adapts well to cultivation in well-drained acidic soils, apparently, and is suitable for sunny, semi-shaded or dapple-shaded sites. It is also hardy to moderate frosts and is quite fast growing. This is another daisy which I think I will try.

References:

- Encyclopaedia of Australian Plants* Vols. 2 and 7, W Rodger Elliott & David L Jones, 1982 and 1997.
- Flora of New South Wales* Vol. 3, Gwen J Harden, 1992.
- Native Plants of the Sydney District. An Identification Guide*, Alan Fairley & Philip Moore, 1989.

SPRING REPORT from EMERALDby Trish Tratt

October here in Emerald has mostly been a good time for feeling quite happy with my garden. The warmer days have really made a difference to plant growth but recent sharp frosts caused some damage, mainly to some annuals I had raised and rashly planted out beguiled by the warm air. The three hot windy days put paid to any remaining infants. I have now direct sown any seed I had left over in a last attempt to raise a few of my favourites — mainly *Rhodanthe chlorocephala* ssp. *rosea*, *R. manglesii* and *Polycalymma stuartii*. I will try sowing seed earlier in the autumn to give them a chance to establish more prior to planting.

We seem to have received a little more precious rain than some suburbs, so many plants have performed fairly well. *Brachyscome cardiocarpa* are flowering, also *B. nivalis*, *B. multifida* 'Peg's Large' ('Metallic Blue') all doing well, and *B. decipiens*, *angustifolia* x *heterophylla*, 'Betty Campbell' and a plant sold to me as 'Betty Campbell' which has much brighter pink flowers. *Podolepis* sp. 1 and *P. jaceoides* intermixed have numerous bowed heads — some already lifted and opening.

Ammobium alatum has formed a large clump of neat greyish leaves and so far hasn't posed a problem distributing seed. *Ammobium craspedioides* is doing well. I must admit I wasn't sure where I had planted this until I saw it at Maureen's and rediscovered mine. *Ozothamnus obcordatus* is just showing yellow. Various rather scruffy *Xerochrysum bracteatum* plants I have retained until new smaller plants flower have been worth it as they are so attractive to butterflies, Caper White and Australian Admiral butterflies being the latest to be seen, bringing my species list to 6. Much time is spent creeping up on them to get a good view for identification purposes.

Unfortunately a thriving *Olearia tomentosa* fell victim to some earth works which disturbed its roots causing it to fall over, half is surviving and flowering very handsomely even if at an angle. Bushes of another olearia — the pink form of *phlogopappa* — are covered with colour, drawing comments from some people walking past: a) surely they aren't native, and b) they thought all daisy bushes had white flowers.

Drought Resistant Daisiesby Judy Barker

Maureen suggested that it would be timely to ask members to contribute short articles about the daisies they have found to be resistant to drought in their gardens. The following is a start. Please add to it, kind members.

Helichrysum rutidolepis — at least two of the three forms we have been growing are exhibiting drought resistant qualities.

1. The narrow-leaved form we regard as the most usual form offered by nurseries stands up straight even though the base of the stems may straggle along the ground and then become upright to about 15cm. The stalkless grey-green leaves are 0.7–7cm x 0.5–2mm, and the heads, about 15mm across, are bright yellow. As they age they retain a dense appearance and the yellow bracts are just visible at the perimeter. This mat of plants has been flowering through the dry summer with very little extra water.

2. The Oberon (NSW) form has not been flowering as long as the above form, but has received very little water over the same period. The bases of the stems also straggle and then become either erect or ascending to a height of 26cm. The leaves are dull green on both sides, 1–5 x 0.4cm, the heads are orange-yellow, to 2cm across, and the papery bracts are orange. As these heads age they seem to soften, spread and become less dense.

3. The form Jeff Irons sent us from Tasmania is growing in a bed shaded by a paling fence. It has been cosseted every day with about a litre of bath water because it was a 7.5cm pot of three new plants going into a new bed in hot December. Its habit differs from the above two forms in that the majority of the stems run along the ground and the heads are lifted barely 6cm above them. It looks more like a ground cover than the other forms and the basal leaves are softer and broader, to 4 x 1.1cm. The heads are paler yellow than the first form described, 2cm across, but the papery bracts stand out from the disc centre by 3mm. As it ages the disc centre becomes less dense. It is possible that the conditions have dictated the habit, so at this point it could not be claimed to be drought resistant. It will be trialed in a sunnier position.

The Oberon form produces the most handsome heads but the grey narrow-leaved form has the neatest habit.

AUSTRALIAN DAISY STUDY GROUP ANNUAL REPORT 2005/2006

The Australian Daisy Study Group is proud to announce that it is celebrating 25 years as an APS Study Group and we plan to hold a special Anniversary Celebration at our Christmas break up meeting in November. Starting with just 2 people, Maureen Schaumann and Joy Cook, it quickly swelled and currently has a membership of some 60 individuals, as well as several APS groups, and is still attracting new younger members. Well attended monthly meetings are held in members' homes; three books have been published; and three newsletters are produced every year. The Group has also funded an Esma Salkin studentship for several years at the RBG Melbourne and our contributions to the new Australian Garden at Cranbourne have been recognized on a Foundation Plaque displayed at the RBG Cranbourne. The Plaque reads:

Thank you for your vision

**The Royal Botanic Gardens Melbourne extends its sincere thanks to these individuals and organisations for their visionary support for the first eleven hectares of the Australian Garden
Australian Daisy Study Group**

Joy Greig retired from her five year leadership in March after several years of making the eight hour trip from her home at Mallacoota to attend our monthly meetings. In addition, Joy has been leading our current *Olearia* studies and has produced a CD of the results so far. A long term member of the Group, Joy has been an excellent leader and we hope she is still able to regularly attend some meetings.

John Webb has been our treasurer for several years and continues to do an excellent job.

The Esma Salkin student for 2005/06 was Andre Messina, who spent some ten weeks investigating the *Olearia ramulosa* complex and his findings are presented in our November 2006 newsletter. Andre also presented his findings on the Saturday of our annual weekend meeting in May. This was attended by about thirty members, including several from country Victoria and interstate and was followed by a very enjoyable dinner on Saturday night, and visits to Trish Tratt's and Bob O'Neill's beautiful gardens on Sunday.

Our annual plant sale, held in Peg McAllister's exquisite garden, was well attended and we were able to offer a good range of daisies and other smaller unusual plants.

At other meetings this year we have discussed and given demonstrations of the various techniques used in propagation of daisies, looked at some of the lesser known species and continued the *Olearia* study, in particular looking at Joy's progress with the CD.

Natalie Peate, leader ADSG.

MEMBERS' REPORTS

Matt Hurst of Wagga Wagga (NSW) reported on 31/10/06: 'Just a quick hello so you know I'm still alive. Not much rain this spring — only 200mm for this year. Almost all the crops failed, for some it was the fifth year in a row. Work is steady. If some storms arrive during our storm season then things should pick up. This nursery is a lot of work and the three of us can't keep up. I have no seed to send as what little was set on scrawny plants looks infested.'

2/1/07: 'It's very dry here. No sign of decent rain, but still the cooler weather is good. Work is going well, with the lead up to Christmas being better than last year I'm told. I have snuck a few daisies into the nursery garden beds, chiefly Swan River Daisy which was a sweet little thing with massed blue flowers, *Podolepis rugata* which one of my workmates said looks like a weed, and a form of *Xerochrysum bracteatum* with white flowers. This plant is now 70cm high and wide with fifty to sixty flowers out at any one time, and there are as many flowers in bud so the plant stands out like a beacon, but there has been no interest shown by any customers. No accounting for taste. We are going to mass plant the last two species to try and create some interest in them for great summer colour.'

Joy Greig of Mallacoota (Vic) writes on 28/1/07: 'The "Olearia" disc is available to members to view/use if they wish. They would need to have a computer with "Windows" "Power Point" installed. The cost of the disc would be (say) \$15 posted. For contact my phone number is 03 5158 0669.'

SNIPPET

Barrie Hadlow of Theodore (ACT) reported: 'I enjoyed guiding at the Botanic Gardens this afternoon for an hour or so — my tour included nine interesting people from Canada, Brazil, and the ACT. It was a casual ramble through a range of habitats from rainforest to rock garden. The two males from Brazil were particularly into forest trees, and explained how their country has vast areas under plantations using *Eucalyptus viminalis*, *E. saligna*, *E. benthamii* — and more. They claimed that this is the largest area of eucalypt forest in the world!

It seems that the price of seed also is ever getting larger . Four or five years ago *E. benthamii* seed brought about \$4000 per kg, and now costs \$10,000. Tours at the ANBG can lead in many directions that aren't always to do with distance! It's fun to meet the range of visitors that come through the gates, and particularly those few who wish to take a tour.'

EDITOR APOLOGISES

When we received our copy of NL 76 the sub-editor pointed out that there was a mistake on p. 44 at the top of the page. Obviously a part of a paragraph had been omitted in Ros Cornish's article on *Olearia glandulosa*. I apologise to you, Ros, and I have no idea what happened to cause its loss. I have read the original copy (which is still on the computer) and the missing lines of the paragraph are present. All of them are at the bottom of p. 43. The complete paragraph should read as follows:

'I consulted the books when I got home and was surprised to find that it has a distribution from south of Sydney to south-western WA. It loves moist sites and is found in woodland, wet heathland, along waterways, in moist gullies, swamps and other low-lying areas. It can grow to about 2m tall and 2m wide and has profuse and conspicuous flowerheads in terminal clusters. The ray florets are white or blue and disc florets (16–23) are yellow. It flowers from November to June.'

The error must have crept in after the sub-editor had finished correcting the draft that goes to Tim Morrow for printing. The sub-editor is meticulous and I am very grateful to him. Perhaps the mistake occurred when the front cover page was in preparation because that is usually the last act before parcelling it up with a sigh of relief. I must try to do better in future.

SEED DONORS

Thank you for donations of seed to Judy Barker, Peg McAllister and Maureen Schaumann

SEED WANTED PLEASE: *Brachyscome ascendens*, *B. formosa*, *B. procumbens*, *B. sieberi* var. *gunnii*, *Leucochrysum albicans* ssp. *albicans* var. *albicans* and var. *tricolor*, *Ozothamnus diosmifolius* (pink) and *Olearia* spp. (not listed in the seed bank). We would also like fresh seed of the following: *Celmisia*, *Craspedia*, *Podolepis* and *Pycnosorus*

SEED LIST

A full seed list is published in each March newsletter. Please keep this list for reference; only additions and deletions will be recorded in other 2006 newsletters. **A STAMPED SELF-ADDRESSED ENVELOPE (111 x 220mm) MUST BE ENCLOSED WITH EACH REQUEST FOR SEED. (POSTAGE REQUIRED IS USUALLY \$1 DUE TO THE BULKINESS OF SOME SEED.)** Please write to Maureen Schaumann for provenance seed or to Judy Barker for garden or commercial seed. (The addresses are on the front page.) If both types of seed are required a letter to either Maureen or Judy will suffice.

Please note that much of the seed listed below has been collected in the gardens of Study Group members, and some species may have crossed with others, especially those of *Brachyscome* or *Xerochrysum*. **One parent only is guaranteed.** Much of the seed listed has been kept in the refrigerator. The curators welcome feedback on your germination results since the task of testing the germination of so many species and the cost of such an undertaking are not feasible.

GARDEN or COMMERCIAL SEED

Judy Barker (Co-ordinator)

*Allittia cardiocarpa**Ammobium alatum*. *Anemocarpa podolepidium*.*Asteridea athrixioides*, *chaetopoda*.*Angianthus tomentosus*.*Bellida graminea*.*Brachyscome aculeata*, *angustifolia*, *basaltica* var. *gracilis*, *ciliocarpa*, aff. *curvicarpa*, *dentata*, *dissectifolia*, *diversifolia* var. *diversifolia* and var. *maritima*, *exilis*, *goniocarpa*, *gracilis*, aff. *gracilis*, *halophila*, *iberidifolia*, *lineariloba*, *melanocarpa*, *microcarpa*, *muelleri*, *multifida* (ex The Rock, NSW), *nivalis*, *nodosa*, *petrophila*, *ptychocarpa*, *pusilla*, *readeri*, *rigidula*, *riparia*, *segmentosa*, *sieberi* var. *gunnii*, *spathulata* var. *spathulata*, *stuartii*, *stuartii* complex, *tadgellii* (orig. Falls Ck), *tenuiscapa* (ex Spencers Ck), *tesquorum*, *trachycarpa*, sp. (Darling Downs), *whitei*.*Brachyglottis brunonis* sport (Mt Wellington, Tas via Mt Stewart Co. Down).*Calocephalus citreus*, *lacteus*.*Calomeria amaranthoides*.*Calotis cuneifolia*, *dentex*, *lappulacea*, *plumulifera*, *scabiosifolia* var. *integrifolia*.*Cassinia laevis*, *leptocephala*, *uncata**Chrysocephalum apiculatum* (Adventure Bay [Tas], Anglesea, John Emms' prostrate, Seaford suckering, Mt William, Urana [NSW]), *baxteri* (orig. Wilsons Prom), *semipapposum* (alpine form, Anglesea, Frankston, Langwarrin, Lara, Mt Buller, Seymour/Bendigo, ex Tamboritha Saddle tall form with large green leaves, ex Valley Reserve Mt Waverley, ex York Peninsula SA with fine grey leaves and small heads, form about 2.5m high with large green leaves).*Cotula alpina* (Bogong High Plains)*Craspedia coolaminica* (cultivated ex. Tas), *paludicola*, *variabilis* (ex ACT)*Helichrysum calvertianum*, *collinum*, *elatum*, *lanuginosum*, *rupicola*, *rutidolepis* (ex Tas, Oberon NSW), *scorpiodes*.*Hyalosperma praecox*, *simplex*.*Ixiochlamys cuneifolia*.*Ixodia achillaeoides*.*Lagenophora huegelii*.*Leiocarpa* sp. (ex Jan Hall).*Leptorhynchus elongatus*, *hieracioides*, *squamatus*, *tenuifolius* (Croydon).*Leucochrysum albicans* ssp. *albicans* var. *albicans* (orig. ACT, Longwood [Vic], Wagga Wagga [NSW]).*Leucophyta brownii*.*Microseris* sp. (NSW, Vic)*Minuria leptophylla* (ex Birdsville).*Olearia argophylla*, *astroloba*, *axillaris*, *ciliata*, *elliptica*, *erubescens*, *frostii*, *floribunda* (white), *glutinosa*, *hookeri*, *ledifolia*, *lirata*, *megalophylla*, *obcordata*, *phlogopappa* (white, pink, blue), *pimeleoides*, *purpurascens*, *viscosa*.*Ozothamnus adnatus*, *cordatus*, *costatifructus*, *ericifolius*, *ledifolius*, *obcordatus*, *purpureus*, *scutellifolius*.*Picris evae**Podolepis auriculata*, *hieracioides*, *jaceoides*, *neglecta*, *nutans*, *rugata*, sp. 1 (the Basalt Podolepis).*Polycalymma stuartii* (Matt H. ex Oats, Barrie Hadlow).*Pycnosorus chrysanthes*, *globosus*, *thompsonianus*.*Rhodanthe anthemoides* (unbranched form, Liverpool Range, Whitlands, and red bud branched), *charsleyae*, *chlorocephala* ssp. *rosea*, ssp. *rosea* (Balladonia form), ssp. *splendida*, *corymbosa*, *diffusa* ssp. *diffusa* and ssp. *leucactina*, *haigii*, *humboldtiana*, *manglesii*, *oppositifolia* ssp. *ornata*, *polygalifolia*, *polyphylla*, *propinqua*, *pygmaea*, *spicata*, *stuartiana*, *tietkensis*.*Schoenia cassiniana*, *filifolia* subsp. *filifolia* and subsp. *subulifolia*.*Vittadinia muelleri*, sp. (white).*Xerochrysum bicolor*, *bracteatum* — (Ebor, Pambula, Sandy Beach, dwarf mixed form, mixed garden form, white forms, tall red form, tall form [Tenterfield], hybrid orange and brown), *subundulatum* hybrids, *viscosum* (yellow and cream).

PROVENANCE SEED

Maureen Schaumann (Co-ordinator)

Freshly collected seed is thoroughly dried and treated for insect infestation. Seed storage procedures are constantly under review. Most seed is stored in sealed foil packets at 4°C. Seed of arid and semi-arid origin is now stored at room temperature.

*Actinobole uliginosa**Allopterigeron* sp. — (Qld).*Anemocarpa podolepidium* 8/96.*Angianthus tomentosus* — (SA) Kimba.*Argentipallium obtusifolium* — (Vic) Aireys Inlet.*Asteridea athrixioides* — (WA) 97, *nivea* (Tugon Bay).*Brachyscome aculeata* — (Vic) Gippsland Alps; *basaltica* var. *gracilis* — (NSW) Kinchega;*bellidioides*, *blackii* — (NT); *ciliaris* — (Qld) Cunnamulla, Noccundra, (NSW) Enngonia Racecourse, Tibooburra, (SA), Nullarbor Plain, Parachilna Gorge, Penong, (WA) Cape Arid Camping area, Norseman, (NT); Pine Creek.*ciliocarpa* — (WA); *dentata* — (Qld), (NSW), (SA); aff. *curvicarpa*; *diversifolia* var. *maritima*; *erigona* — (NSW);

- exilis* — (SA; **aff. exilis** — (NSW); *goniocarpa* — (SA); Tooligie; *gracilis* — (Vic); *leptocarpa* — (Vic); *lineariloba* — (SA) Streaky Bay, Gawler Range; *melanocarpa* — (Qld), (NSW); **aff. multifida** — (NSW) Hat Head; *nivalis* (Vic) Falls Creek (atypical forms), Mt McKay; *nodosa* — (Qld) Cunnamulla, Quilpie, (NSW) Narrabri; *obovata*; *oncocarpa* — (WA); *papillosa*; *ptychocarpa* — (NSW) Mt Canobolas, (Vic); *pusilla*; *radicans*; *readeri*; *rigidula* — (NSW), (Vic) Falls Creek; *scapigera* — (Vic) Dargo High Plains; *smith-whitei*; *spathulata* subsp. *spathulata* — (NSW); **aff. stuartii**; *tadgellii* — (Vic) Dargo High Plains, Falls Creek; *tenuiscapa*; *whitei* — (Qld) Quilpie 8/95, 9/93; *xanthocarpa*.
- Calotis cuneifolia*; *inermis*; *multicaulis*.
- Campactra barbata* — (Qld).
- Cassinia aculeata* form — (Vic); *adunca* — (NSW); *compacta* — (NSW); *laevis*; *longifolia* — (NSW); *quinquefaria* — (NSW); *subtropica* — (Qld); *tenuifolia* — (NSW) Lord Howe Island; **sp. aff. uncata** — (Vic); sp. — (Vic) Pine Mountain; (NSW) Joonama Dam.
- Celmisia* sp. — (Vic) Gippsland Alps, Bennison High Plains
- Chrysocephalum semipapposum* — (Vic), (SA).
- Craspedia paludicola* — (Vic) Lal Lal, (SA) Yorke Peninsula.
- Cymbonotus* sp.
- Erigeron bellidioides* — (Vic) Falls Creek; *nitidus* — (Vic) Falls Creek; **sp.** Mt Buffalo.
- Erymophyllum glossanthus* — (WA) Mt Magnet.
- Haptotrichion colwillii* — (WA); *conicum* — (WA).
- Helichrysum adenophorum* var. *waddelliae* — (Vic) Mt Cobbler.
- Hyalosperma glutinosum* ssp. *glutinosum* — (WA) and **ssp. venustum** — (WA); *praecox* — (Vic); *semisterile* — (Qld).
- Lagenophora stipitata* — (Tas).
- Lawrencella davenportii* — (WA) ; *rosea* — (WA).
- Leiocarpa* sp. — (Qld), (NSW).
- Leptorhynchus baileyi* — (Qld); *nitidulus* — (Vic) Aireys Inlet.
- Leucochrysum albicans* ssp. *albicans* var. *albicans* — (Vic) Mt Cobbler, Dimmicks L/O, Alps; *fitzgibbonii*; *stipitatum* — (NT).
- Leucophyta brownii* — (Vic).
- Microseris* sp. 1 or 3 — (Vic) Woodend; **sp. 2** — (Vic) Alps; **sp. 3** — (NSW, Berry Jerry S.F.).
- Olearia astroloba*; *axillaris* — (Vic) Fairhaven; *ciliata* — (SA) Kimba; *decurrens* — (SA); *erubescens*; *floribunda* — (NSW); *frostii* — (Vic) Falls Ck; *imbricata* — (WA); *lirata*; *megalophylla* — (Vic) Dargo High Plains; *phlogopappa* — (Vic); *pimeleoides* — (Vic) ; *ramulosa*; *stuartii* — (NT), *subspicata* — (Qld).
- Othonna gregorii* — (NT) Uluru.
- Ozothamnus cuneifolius* — (NSW); *diotophyllus* — (Qld); *ericifolius* — (Tas); *hookeri* — (Tas); *obcordatus* — (Vic) Frankston, Woodend; *rosmarinifolius* — (Tas); *scutellifolius* — (Tas); *secundiflorus* — (NSW); *thyrsoideus* — (Vic); *turbinatus* — Eagles Nest L/O;
- Pembertonia latisquamea* — (WA).
- Podolepis monticola*; *rugata* — (SA) Murray Bridge.
- Podotheca wilsonii* — (WA).
- Polycalymma stuartii* — (NT).
- Pterocaulon sphaceolatum* — (NT).
- Rhodanthe corymbiflora* — (Vic, SA); *gossypina* — (Qld); *polygalifolia*; *pygmaea* — (WA); *stricta* — (Qld).
- Rutidosia leptorrhynchoides* — (Vic).
- Schoenia filifolia* ssp. *filifolia* — (WA); *macivorii* — (WA).
- Vittadinia dissecta* var. *hirta*; *gracilis* — (WA); *muelleri* — (Tas); **sp.** — (NSW)
- Xerochrysum viscosum* — (NSW).

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