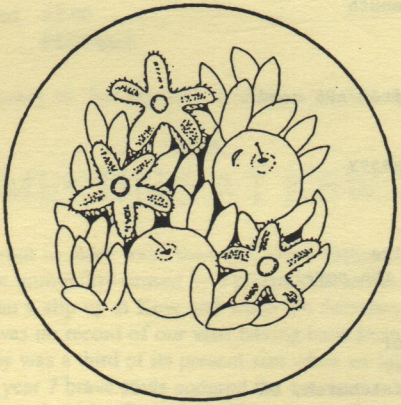
# PENTACHONDRA

NEWSLETTER OF THE AUSTRALASIAN PLANT SOCIETY



ISSUE 21 DECEMBER 1998

# AUSTRALASIAN PLANT SOCIETY

Newsletter No. 21

December 1998

# CONTENTS


| | PAGE |
|---|---|
| Editorial, AGM 1998, Where to hold AGM 1999, Can You Help? | 1 |
| Obtaining Books from Australia | 2 |
| New Zealand Plant Finder, Thank You | 2 |
| Northern Meeting | 2 |
| Seed Distribution 1998, Name Changes | 3 |
| Update on the 'Fertile' Method | 4 |
| Gardening Report from Plymouth | 4 |
| Banksia Snippets | 5 |
| Castanospermum australe | 6 |
| Thysanotus multiflorus | 6 |
| Have you grown Phormiums from APS seed? | 7 |
| More on Smoke | 8 |
| Four Oaks Show | 8 |
| Australian Plant Books Odyssey | 10 |
| Calostemma purpureum | 11 |
| Eustrephus latifolius | 11 |
| Weinmannias | 12 |
| Garden Report from Yorkshire | 13 |
| Book Review - Eucalyptus, the novel | 19 |
| Celmisias | 19 |
| A couple of Celmisias | 22 |
| Propagation using Rock Wool | 23 |
| A Case of Mistaken Identity | 24 |
| New Zealand Plants in Christchurch, UK | 24 |
| Antipodean Phytophilia Syndrome | 25 |
| Xeronema callistemon | 26 |
| Variegation in Australian Plants | 27 |
| Why won't it fruit? | 28 |
| Snippet - Melaleuca Nursery | 28 |

# EDITORIAL

1998 will be remembered as the 'Year of the Slug'. Nothing stopped the beasties nibbling and demolishing seedlings and older plants. The wet summer turned gardens into jungles, making it a constant battle just to maintain them. Its no wonder that many people decided to replace lawns with gravel, myself included (see My Garden report).

With your newsletter you should have received an Index covering the first 20 issues of the society's newletters. Many thanks to member Pat Anderson for compiling it. I know that a lot of time was involved. Over the years I have used a less detailed index to locate information, but this new one will now take its place.

Back issues of newsletters are available from Editorial Headquarters (see inside back cover).

| | |
|---|---|
| Issue 1+2 combined | £2.00 |
| Issues 3-20 | £2.00 each |

Please make cheques payable to 'Sue Hyams', and allow several days for me to get them printed.

*****

# APS MEETING AT KEW 1998

The meeting was a wash-out in more ways than one. Our Treasurer, Tony Entwistle, must have been pleased that the immobility caused by a plaster cast on his leg prevented him from attending. There had been a slip up at Kew and when the Secretary telephoned to confirm our arrangements, there was no record of our visit having been arranged. In the event there was no guide. The society was a third of its present size when we last met at Kew. Then 16 members attended. This year 7 brave souls endured the continuous heavy rain, which lasted all afternoon. They retreated to the Temperate House, and after viewing the Antipodean plants there, retired to the nearest tea room. A wide ranging discussion ensured that the time was spent pleasurably.

*****

# AGM 1999

Suggestions are invited for a venue for next year's AGM. Do you know of an interesting garden easy to reach by rail or road. If so, please let Sue Hyams know.

*****

# CAN YOU HELP?

Earlier this year Jeff Irons staged an exhibit of Australian plants. Sadly all did not go perfectly. *Herpolirion nova-zelandiae* disappeared, while *Astelia alpina* var *alpina* did not make it to the show. The plant began to die as soon as the tuft was lifted, and was dead within a fortnight. Both species had been grown from AGS seed. Can anyone help Jeff with replacements?

# OBTAINING BOOKS FROM AUSTRALIA

We have been able to arrange discount of up to 40% on RRP from books purchased through an Australian bookseller. If you are interested, contact Jeff Irons. He will get a price quotation for you. Postage is at cost, and there is a surcharge on individual orders of less than A$100. However it would still be cheaper to order individually than aggregating orders, then paying British postage as well when bulk is split down.

*****

# NEW ZEALAND PLANT FINDER

A small stock of this new publication is available in the U.K. from :-

The Plant Finder
10 Market Street
Lewes
BN7 2NB

Tel: 01273 476151
Fax: 01273 480871
email:jstockdale@compuserve.com

Price £15.00 plus £3.00 p&p.

Compiled by Meg Gaddum BAgrSc (Hons), the guide lists over 22,000 plants available in New Zealand from over 150 retail nurseries, including those with mail order services.

There is also an 'Aussie Plant Finder' available from the same address.

*****

# THANK YOU

Thanks to Chris Bowyer for his donation to the seedbank. Also thanks to all members who have submitted articles for publishing. Please keep them coming!

*****

# NORTHERN MEETING

Saturday 30th May at the home of members Mr & Mrs Fox in the Peak District.

Report by Dennis Rowlinson

A lot of members attended the meeting, which started with a conducted tour around the garden, given by Anne Fox, looking at the Celmisias, which form her collection. The way the plants were grown in raised beds and open garden, showed off the plants very well, and gave a good idea on their requirements for growth.

The lunch provided by Anne was excellent and lots of discussion took place on all the tables during the meal.

Anne then gave a short slide show, of their trip to New Zealand showing locations and plants they had seen. The slides were superb and the writer was quite jealous of their quality.

The weather was very sunny on the day, which enabled most of the members to sit outside and chat for the rest of the afternoon or wander round the garden appreciating Steve's collection of Rhododendrons. As usual a lot of unusual plants were in evidence and people were giving and exchanging plants all the time. Everyone agreed that it had been an extremely good day to be looking at, and talking about plants.

*****

# SEED DISTRIBUTION 1998

The number of seed requests was at an all time high. Because of a flush of new members in early June the proportion requesting seed was slightly down. At 34% of members it was still more than three times that of most societies. As always 'rare' seeds were in great demand. This resulted in a reduction in the percentage of requests met.

| | | 1995 | 1996 | 1997 | 1998 |
|---|---|---|---|---|---|
| No. of requests | | 575 | 642 | 649 | 777 |
| No. met | | | | 602 | 685 |
| % of total | | | | 93 | 88 |
| No. of requests for NZ seed | | 113 | 86 | 115 | 164 |
| No. of requests for Aust seed | | 204 | 247 | 309 | 485 |
| Excluding Acacia, Callistemon, Eucalyptus, Leptospermum, Melaleuca; No. of sp. with 5 or more requests | | 18 | 23 | 21 | 39 |
| Most asked for spp & No. of requests | | Grevillea victoriae & Isophysis tasmanica 7 | Phaiophleps biflora 9 | Boronia citriodora 11 | Aciphylla glacialis & Cordyline pumilio 10 |

It is getting increasingly difficult to obtain non-commercial seed of uncommon species. The number of members donating seed is still distressingly small.

# NAME CHANGES

*Melaleuca holosericea* is now *M. smartiorum.*
*M. holosericea* is still a valid name. It belongs, not to the species commonly grown under that name, but to a rare species from Western Australia.

*Swainsona nova-zelandiae* is now *Montigena nova-zelandiae.*

# UPDATE ON THE 'FERTILE' METHOD

By Dennis Rowlinson

You may remember that, in the last issue of Pentachondra, Dennis described how he used a product called 'Fertile' to aid seed germination. 'Fertile' is a horticultural mat, a layer of biodegradable material, with a special absorbent gel attached to the reverse. Dennis was encouraged by the results. The following news is an update on those seeds which germinated.

The following seeds grew into plants (report written in August):-

*Arthropodium strictum* - nice neat foliage and very nice blue flower spike.
*Grevillea robusta* - on its way to being a large tree.
*Kennedya prostrata* - spreading across my bulb frame.
*Patersonia glauca* - steadily growing into a flowering size plant.
*Pelargonium australe* - has pretensions at taking over my front scree bed.
*Poa alpina nodosa* - growing in the screes.
*Roscoea alpina* - has disappeared for the time being.
*Stylidium gramminifolia* - in two groups of seedlings in pots. Look too delicate to pot on yet.
*Wahlenbergia sp* (Akora Heads) - giving a very nice display of flowers. Only hope the slugs will stop attacking it.

*Blandfordia punicea*, *Carmichaelia aligera* and a *Craspedia* sp germinated, but then were decimated by rampaging slugs. Hoping that they regrow from the stumps left behind.

None of the other seeds have germinated - some have rotted away and could have been poor seed - the *Clematis* species are still standing there waiting. The question is - Do Australasian Clematis wait for a day length signal in order to germinate in our autumn? Or do they have to wait for a springtime signal? If anyone knows what triggers the start of their germination please let me know.

The Ipomeas are all round my fences - some are good, some are rubbish.

# GARDENING REPORT FROM PLYMOUTH

By Geoff Boyer

Its early June and my *Callistemon violacea* that must be approximately 4 years old and about 1.5m high x 1m spread has flower buds all over the plant. I'm really looking forward to its flower display. A small specimen of *C. citrinus* has buds on it. The plant that surprised me the most was a 1.2m high *Melaleuca squarrosa* with three flowers only. I think it looks quite

spectacular. (I always thought cream to be a very bland colour; I look forward to the entire plant covered in cream brushes.)

In containers, about the house and outbuildings, I have a *Correa backhousiana* in a small pot doing well; a small *Melaleuca ericifolia* in a pot. I've overwintered 4 *Banksia collina* plants. I've also pots of seedlings consisting of *Melaleuca alternifolia*, *Kunzea vestita*, grey and green leaf, *Callistemon pinifolius* red and green flower, *Banksia cunninghamii*, *Banksia pencillata*, *Acacia hamiltoniana* and *Hakea microcarpa*.

*Kennedya coccinea* is growing on a bathroom windowledge.

In the fridge I've had *Eucalyptus perriniana* and *Agastachys odorata* for approximately 7 weeks. Seeds not yet germinated are *Grevillea alpina*, *Grevillea longistyla*, *Callistris endicheri*, *Diplarrena latifolia*, *Kunzea capitata* and *Xanthorrhoea resinifera*.

My large specimen of *Diplolaena angustifolia* has not yet flowered but I took cuttings last year and one of these small plants produced just one flower. It looked superb. Moving from the bud, the stamens went from red to orange. The flower of the Yanchep Rose looked like something from 'The Day of the Triffids'.

Two new plants I've bought are *Callistemon* 'Little John' and *Grevillea* 'Canberra Gem' which are growing in containers at the front of the house. I've put *Leptospermum* 'Kea' in the garden border and its flowers are light pink with a red centre. The *Leptospermum* 'Crimson Glory' is in a container and is full of flowers which are deep red and I would recommend highly. A small specimen of *Leptospermum* 'Red Damask' in the garden is in flower.

# BANKSIA SNIPPETS

Derbyshire member Chris Bowyer germinated 3 seedlings of *Banksia saxicola* from seed obtained in 1990. Eight years later, only one plant remains which began flowering three years ago and has increased each year with blooms being pollinated by wasps. Now a large containerised plant, it has spent the last two winters at the side of the house, in the open and seems fairly hardy.

Thomas Naylor, from Leeds, provides the following information.

*Banksia canei* Kydra Peak

90 days in the fridge - 2 seeds germinated
120 days in the fridge - one more seed germinated

Wulgulmerang

120 days in the fridge + 50 days on windowsill - no germination

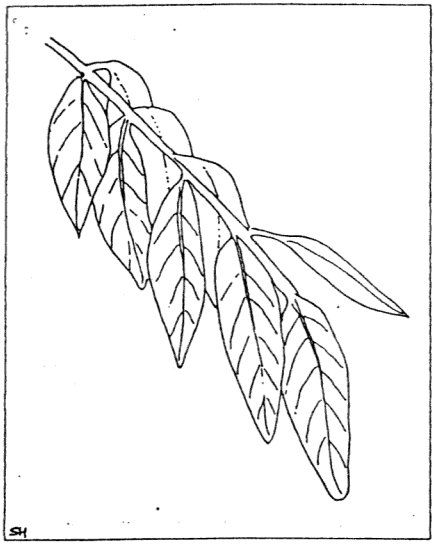
*Banksia marginata* Western Arthurs

90 days in the fridge + 50 days warmth + 120 days in the fridge + 3 weeks outside - no germination

Greg Plenty also reports germination of *B. canei* in a fridge.

# CASTANOSPERMUM AUSTRALE

Visit the houseplant department of your local garden centre and you may come across 13cm pots of a plant named 'Beany'. 'Beany' is a young specimen of *Castanospermum australe*, a native of stream banks in sheltered rainforests and mountain sides in Queensland and Northern NSW.




One of its commonly known names is Moreton Bay Chestnut (another is Black Bean) given by early British settlers because its fruit resembles that of the European Chestnuts. The rest of the tree's characteristics show no resemblance at all to the European trees. The leaves are smooth-edged and pinnate and grow upto 45cm long, with 5-7 pairs of elliptical leaflets. The flowers are greenish-yellow changing to orange-red typical pea flowers, produced in racemes directly from the trunk or branches. Cylindrical pea pods upto 23cm long follow the flowers. Each contains a number of large edible seeds.

As a houseplant, they seem fairly amenable to the low light intensity of the average home. Although it will probably never flower in its artificial home, it makes a handsome plant with shiny dark green foliage.

The Moreton Bay Chestnut is of interest in the medical world. One of the alkaloids contained in the seeds has been found to interrupt the metabolism in rat cancer cells, forcing them to revert to normal. The seeds also contain chemicals known as 'sugar mimics' which appear to offer a new method af attack against the HIV (Aids) virus.

# THYSANOTUS MULTIFLORUS

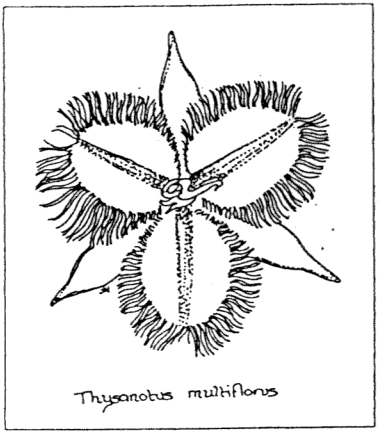
By Pat Anderson

So far as I know, nobody has risen to the challenge hoisted by Tim Longville in his impassioned December 1995 article (Issue 15). He described efforts to get this Fringe Lily to proceed further than a few weeks after germination.

I've had a go. I wanted to get the thing to flower before I dared to go into print, but the summer has been so autumnal since May that I feel I should seize the moment.

My seed came from a packet bought in W.A. from the (now I believe defunct for conservation reasons) W.A. Wildflower Seed Company Pty Ltd. Here are their instructions for sowing:

I. 'Fill a pot or seed tray to within 2cm of the top with moist sandy soil, wet thoroughly and compress. Sow seeds thinly on the surface and cover with a thin layer of soil. Heap 7cm of dry leaves or crumpled newspaper on top of the soil and set alight. Remove any unburnt pieces. Water well, cover with clear polythene which should be removed when germination commences in 2 to 5 weeks. Keep soil moist. Place in a warm shaded position to germinate.'




All very similar to those given by Tim.

No problem; all went according to plan. But I wasn't going to be caught out by the absence of the dreaded mycorrhizas if I could help it, so off I went to the nearest patch of clover in the lawn (not far) and abstracted a teaspoonful of subsoil which I mixed with the compost used for planting out. I used two 10cm pots into which I transferred about five each of the seedlings. Both pots got the clover underlay, and one got in addition the same amount of soil from a pot containing a healthy *Eucalyptus pauciflora*, just in case there was another magic ingredient known only to native Australians. Foolishly I omitted to do a negative control test.

The result was handsome growth in both. A month or so later, the proof of the presence of fungi emerged in the shape of little grey-brown short-lived toadstools from the slots in the basal edge of both pots.

However, although the plants survived a further transfer to 20cm pots, and have looked very healthy out on the patio all 'summer', not a trace of flowers has been seen, but then this is their second year only and now 'Australian Plants' says 'May flower after two years from seed' and 'Needs full sun for flowers to open'. Leaves are 2-3mm wide, upto 30cm long and plentiful. I intend to nurture the plants in a frost-free conservatory this winter, and we'll see next year if we can get some stems and buds, even if the Ninos stop the sun.

More news, I hope, then.

## HAVE YOU GROWN PHORMIUMS FROM APS SEED?

Some of the seeds offered were collected from variegated plants. They have been the most popular. However variegated phormiums are chimaeras. Consequently their offspring can be randomly green, white or variegated. We would like to know how the APS seed has performed. If you have sown "variegated" seeds, please let Sue Hyams know how you got on.

# MORE ON SMOKE

By Tony Entwistle

Dr. Kingsley Dixon, Shauna Roche and John Pate of King's Park, Perth have published a paper (Oecologia 101:185-192) on 'The promotive effect of smoke on seed germination of W.A. plants'.

This was an elaborate controlled trial of the effect of:

1. smoke fumigation (of different durations) and
2. smoked water on glasshouse, ordinary outdoor soil and burnt soil (after a recent bushfire).

The results showed that 50% of the 97 taxa tested had enhanced germination with smoke. Fumigation was marginally better than smoked water but both were effective. 60 minutes smoke seemed the best - a few taxa were inhibited by 90 minutes.

Smoke induced germination in what were called 'totally unamenable' taxa - *Conospermum, Eriostemon, Codonocarpus, Gyrostemon, Lechenaultia, Patersonia, Scaevola, Sphenotoma* and in the 'difficult' taxa *Geleznowia, Hibbertia, Pimelea, Strilingia* and *Verticordia*.

Smoking improved germination even on the burnt soil (except for Epacridaceae).

Recent work in South Africa suggests that ammonia may be the chemical responsible - it is present in smoke and has been found to stimulate germination.

If this proves right, life will be a lot easier - we could just wave a bottle of sal volatile over our seeds!

I have a thought - why not use the old Chestunt Compound (cupro-ammonium carbonate). It certainly has plenty of free ammonia, as you know when you take the lid off!

Incidentally Dr. Dixon was here this spring and lectured at Ness on the evolution of Australian plants. He talked about the newly found 'living fossil' *Wollemia*, only 60 miles from Sydney and now thought to be genetically related to *Agathis*, and also about the subterranean orchid *Rhizanthella gardneri* - the only coloured flower (it was a handsome-looking pink on the slide) which is completely underground, fertilised by termites.

# FOUR OAKS SHOW

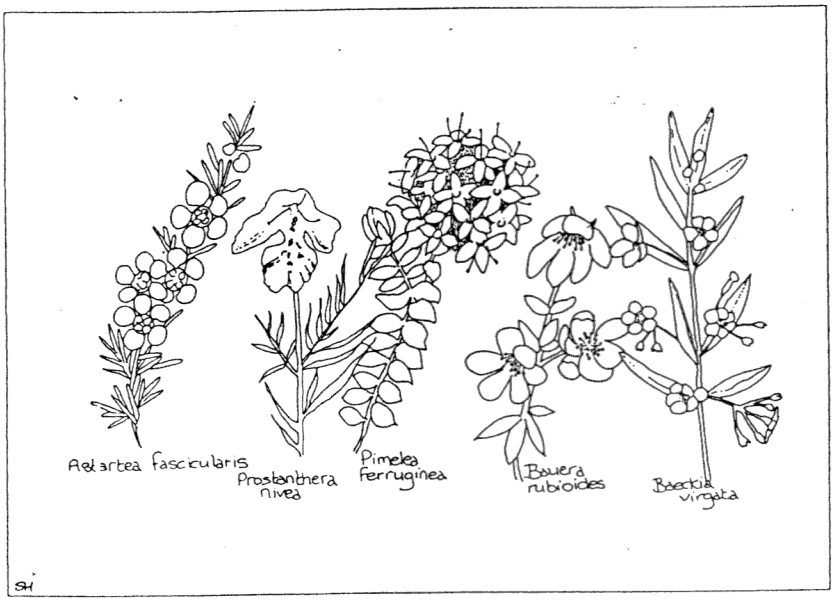
SEPTEMBER 1998

By Tony Entwistle

Bigger than ever this year! There were the usual stands from AusFern and Celyn Vale Eucalypts. But the most interesting find was the Australian exporters Aus-Pacific of Brisbane, whose British agents are Scarletts Quality Plants, Nayland Rd, West Bergholt, Colchester, CO6 3DH

The Aus-Pacific catalogue has a large range of Australasians, which I was told could be ordered from Scarletts though it might take a while (Scarletts does have a retail catalogue 'Conservatory Plantline', but this has only a few Australians in).

The following are listed in the Aus-Pacific catalogue: (omitting items such as Acacias and Eucalypts) *Astartea fascicularis, Austromyrtus dulcis, Baeckia virgata, Banksia coccinea, collina, ericifolia, integrifolia, Bauera rubioides, Boronia megastigma* 'Jack McGuire', *B. pinnata, Callistemon* 'Burgundy', 'White Anzac', 'Endeavour', 'Mauve Mist', 'Reeves Pink', 'Captain Cook', 'Dawson River', 'Hannah Bay', 'Little John', *Ceratopetalum gummiferum, Chamelaucium* 'Purple Splendens', 'Mollering Brook', *Dampiera diversifolia, Darwinia citriodora, D. fascicularis, Eremophila maculata aurea, Graptophyllum excelsum, Grevillea banksii alba,* 'Bronze Rambler', 'Coconut Ice', 'Forest Rambler', 'Gaudichaudi', 'Honey Gem', *infundibularis, intricata, langera,* 'Mt Tamboritha', 'Lilliane', 'Masons hybrid', 'Moonlight', Orange Marmalade', 'Pink Surprise', 'Robyn Gordon', 'Royal Mantle', 'Sandra Gordon', 'Splendour', *stenomera* pink, 'Superb', 'Sylvia', 'Winparra Gem', *Isopogon formosus, Leptospermum* 'Pacific Beauty', 'Pink Cascade', 'Crimson Glory', 'Winter Cheer', *Macropidia fumosa*, many melaleucas, *Pimelea ferruginea, Prostanthera aspalathoides, ovalifolia, nivea, Waterhousia floribunda, Westringia* 'Wynabbi Gem'.




**Astartea fascicularis** : shrub with white to pale pink flowers; 5 petals with green to red central disc.

**Baeckia virgata** : shrub with white, rarely pink, open flowers, 5-10mm across. 5 petals surround a green central disc.

**Bauera rubioides** : scrambling; prostrate or bushy shrub, pink to white flowers upto 20mm in diameter with numerous yellow stamens.

**Pimelea ferruginea** : shrub with pink, sometimes white, tubular flowers, arranged in dense terminal globular heads, 3-4cm across.

**Prostanthera nivea** : upright shrub with white, sometimes mauve-tinged flowers with orange spots inside.

# AUSTRALIAN PLANT BOOKS ODYSSEY

By Keith Larkin

The May 1998 issue of "Pentachondra" made several references to Australian plant books. I thought that members might be interested in my voyage of discovery of the range and quality of Australian plant books that have been published in the past 40 years.

Until two years ago, I was largely ignorant of Australian plants, which is surprising since I have been interested in a wide range of plants for as long as I can remember. I was browsing in a second hand bookshop in Eastbourne, looking at the plant books, when I came across Morecombe's "Western Australian Plants". I was captivated. Although published in the late sixties, the quality of the habitat photographs was very good. I was to go to South Africa a few weeks later to look at plants in habitat, and made a mental note that Western Australia might be a good place to go next.

I didn't give too much thought to this, but I happened to come across his "Australian Wildflowers" in another bookshop a few weeks later. This, like the earlier one, had very good quality photographs. There's nothing like a little bit of success to encourage further search, and I started to come across other Australian plant books, many of which had good photographs or illustrations. I now have some 30 books, of varying but mostly of good or excellent quality, almost exclusively about them in habitat but sadly with very little about cultivation. From what I've seen, only South African plants come close to having as wide a range of good quality books published about them over the last 40 years.

If you want to follow a similar path, then any second hand bookshop is worth a look. Most are OK – only occasionally have I walked straight out again at what I've seen. You won't find Australian plant books in all of them – I've cleaned out quite a few! – but it's worth looking in the gardening, botany and natural history sections. Beware of only looking for titles with Australia in them – "What Wildflower is that?" by Blombery is one of the general books I've found on Australian plants.

You can find second hand bookshops in the yellow pages, but another source is Sheppard's "Book Dealers in the British Isles", published annually. It's quite expensive - about £24 - but major reference libraries will probably have it. My local one was selling its old edition when I enquired – people seem to get quite confused when I tell them I've a second hand copy of the guide to second hand bookshops. I don't understand why! Although the information is 3 – 4 years out of date, I have found it to be almost totally reliable. It gives geographical and specialisation classifications, but beware, I found volume 4 of Elliott and Jones "Encyclopaedia of Australian Plants" in one that specialised in Bird Books.

Another factor to be aware of is that some books have been through several editions. Gardner's "Wildflowers of Western Australia" went through a major change, replacing colour illustrations with photographs, but others merely had re-designed covers with the contents largely unchanged, so you could end up with two copies with the same contents.

Discount bookshops are also worth browsing. Many good quality plant books appear surprisingly quickly in some of them (some second hand bookshops also have these). But you can also come across some surprising finds – I found Costermans "Native Trees and Shrubs of South Eastern Australia" in one in Brighton.

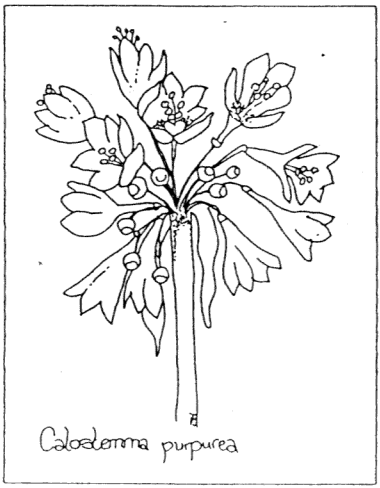
Prices vary enormously, from incredible bargains, to over the odds. Specialists in plant books will often be more expensive than others, but this is not always the case. Books of well reproduced paintings usually seem to be pricey, probably because these are generally collectable, but I get the impression that Australian plants books aren't seen as particularly popular (shame I hear you say!)

This interest (obsession some would say!) of mine is no doubt partially to compensate for my current very limited space to actually grow these plants. But many of the Western Australian plants are reputedly extremely difficult to grow in this country, and maybe the pictures are the most we can hope for. But we can always dream, and many of these books certainly make this possible.

Books on New Zealand plants seem to be much more limited. I wonder if this is because far fewer have been published, or fewer copies printed for the smaller population?

I shall keep on looking for these books – I am amazed that I am still finding new ones to add even now. I shall have to compare my collection with the bibliography in the Ross and Irons book, to see how far I still have to go. And if you do try looking and find little, sorry if I have mopped most of them up!

# CALOSTEMMA PURPUREUM




We have been offered seeds of *Calostemma purpureum*. Expected to arrive before the 1999 Seed List, these fleshy seeds have a germination pattern similar to that of *Nerine*. Because of that we believe that the best procedure is to take advance orders, and despatch seed as soon as it is received. If you are interested please let Jeff Irons know. *Calostemma* is an indoor bulb which blooms after a dry period. Grown outside (ie high light) in Australia, it is about 0.5m high.

# EUSTREPHUS LATIFOLIUS

Earlier this year we received seeds of the Wombat Berry, *Eustrephus latifolius*. The species has a reputation for being difficult to germinate. Instead of saving it for the Seed List

Jeff Irons sowed it in his greenhouse. He now has 7 pot grown seedlings for sale at £1.50 each, including postage. If you want one, please contact Jeff directly. A slender twiner, the Wombat Berry has pretty pink flowers about 1.5cm across. They are followed by orange berries. Collected from a plant growing in the understorey of wet Eucalyptus forest, at 1100m, the species will be of borderline hardiness.

# THE WONDERFUL WORLD OF WEINMANNIAS

By Tim Longville

Visiting Mount Stewart in Northern Ireland in the spring of 1998, I found, among the innumerable desirable rarities there - many of them from the Southern Hemisphere - , one particularly beautiful small tree which was new to me. It was perhaps twenty feet tall, with beautifully toothed and pinnate leaves, the older ones dark glossy green, the newer ones with lustrous reddish bronze overtones, a combination which produced an effect simultaneously graceful and airy, solid and dignified. What's more, the whole tree was alight with hundreds of substantial, dense, white flower 'candles'.

What was it? It was *Weinmannia trichosperma*, a native of Chile. Never heard of it? Neither had I. Although it received an A.M. as long ago as 1927 (was it a Comber introduction? does anyone know?), it's still rarely seen in British gardens. It's only suitable for mild and sheltered ones but even those hardly ever in fact contain it. In 1947 it was amon Will Arnold-Forster's list of 'experimental and rarely tried' plants in his classic *Shrubs for Milder Counties* and it would still be on such a list half a century later. It's a member of the Cunoniaceae, a family of trees, shrubs and a few vines (mostly *Aphanopetalum*) coming largely from the Southern Hemisphere, especially from New Guinea, New Caledonia, Madagascar, South Africa and Australia.

Though there are no members of the particular genus, *Weinmannia*, in Australia, there are two New Zealand *Weinmannia* species, at least one of which should be about as hardy as the Chilean *W. trichosperma*. The two species are *W. racemosa* and *W. sylvicola*. They succeed each other on New Zealand hillsides, *W. sylvicola* occurring at lower levels, *W. racemosa* at higher ones. *W. racemosa*, the hardier species, is called Towai or Kamahai in Maori. It has the same sort of graceful shape as *W. trichosperma* but with variable leaves (on juvenile plants they're usually trifoliate and on mature specimens they're simple; in both cases, coarsely toothed) and with smaller candles or racemes of white flowers. *W. sylvicola* is very similar but perhaps not possible outdoors even in the most sheltered UK gardens. Arnold-Forster was convinced that the Chilean species was more attractive than either of the New Zealanders as well as probably a touch hardier. He may well have been right but it's more or less impossible in 1998 to come to your own judgement since neither of the New Zealanders is available or appears to have been for many years. More on that in a moment.

First a word on the garden performance and availability of the Chilean *W. trichosperma*. As well as the magnificent mature Mount Stewart specimen, Mark Brent tells me that the garden

at Lamorran House, St Mawes, Cornwall, contains a flourishing specimen, obtained from Angus White seven or eight years ago and is now one of the stars of the garden when it's flowering in May and June. To encourage you to try this beauty for yourself, I'll add that my own small specimen, obtained from Paul Allanson, has virtually doubled its size in a season and clearly aims to become a full-grown tree in time to celebrate the new millenium. Several of 'the usual suspects' will sell you a plant; as well as Paul Allanson and Angus White, the 1997/98 *Plant Finder* listed Hardy Exotics in Penzance, Seaforde Gardens in Co. Down and Gary Dunlop at Ballyrogan.

As far as the two New Zealand species are concerned, though you can't at the moment buy plants in the U.K., there will be commercially obtained seed of both species on the 1999 Australasian Plant Society seedlist and, if my Internet acquaintance, Tim Dutton in New Zealand, remembers his promise, I hope by autumn 1998 to have seed myself, collected from the trees growing wild in his large woodland garden.

I'll close with a formal description of the characteristics of the genus *Weinmannia*, which may give what's really no more than an excited fan letter some more permanent value as a reference. The description is derived from the work of Jason C. Bradford, who's studying the whole Cunoniaceae family for his Ph.D. at the Missouri Botanic Garden. You can get up-to-date information about his research via the web site:

http://www.mobot.org/MOBOT/Research/gradstudents/Bradford/cunon.wein.describe.html.

Here is the description:

Shrubs or trees. Leaves opposite or rarely whorled, petiolate or sessile, margin usually toothed, odd-pinnate or simple; interpetiolar stipule prominent; petioles and rachis sometimes winged. Inflorescences terminal or axillary, racemose (simple or compound), spicate, rarely paniculate, or sometimes axis compressed and inflorescence appearing umbellate. Flowers small, borne singly or in fascicles, actinomorphic, bisexual or unisexual. Sepals 4 or 5 imbricate, persistent or caducous in fruit; petals 4 or 5, imbricate, persistent or quickly dehiscent, white, orange, red or pink. Stamens 8 or 10; anthers longitudinally dehiscent. Nectary disk annular or segmented and free from ovary. Ovary superior, occasionally appearing semi-inferior due to a hypanthium, 2-locular with carpels concrescent; ovules 2 - numerous, biseriate, on axillary placentae; styles free; stigma clavate and papillate. Fruit a coriaceous, septicidal capsule with bifid valves. Seeds oblong; testa with short scattered hairs, a dense covering of hairs, or with relatively long hairs concentrated at ends.

It's difficult to believe or remember that inside that dry description there are creatures of remarkable beauty but, believe me, there are.

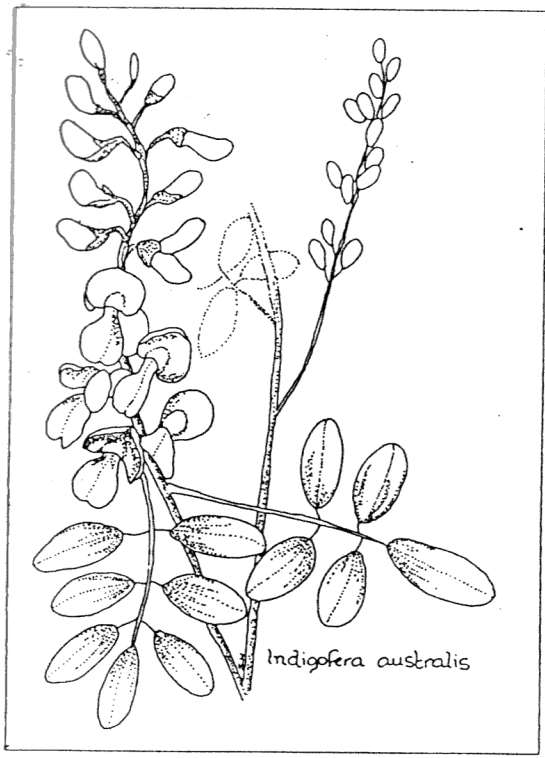
# MY GARDEN REPORT

By Sue Hyams

The autumn of 1997 was one of the mildest in recent years, the weather confusing many flowers and animals. In Cornwall camellias were in full bloom. At the beginning of December frost and snow arrived. Wales, S.E. England, Cumbria and Northumberland were worst hit. Here, in Knayton, the temperature dropped to -6'C and there were a few snow flurries.

'1997 as a whole was confusing for flora and fauna. An Easter heatwave was followed by frosts in May, and June was a washout.'

Early December and in the greenhouse the flowering racemes on *Indigofera australis* were colouring up. A tent of horticultural fleece was erected over this plant as in previous winters it had suffered cold damage after milder spells of growth.




The December frosts damaged the tips of *Pittosporum* 'Silver Queen'. It had put on a lot of new growth during the autumn as had *P. tenuifolium*. Both grow against a southfacing wall.

For many people Christmas will be remembered for the hurricane-force winds which battered Britain. Thousands of homes were left without electricity; as well as garden fences and roof tiles etc. In my own garden *Eucalyptus coccifera* became unstable in my light sandy soil, leaning at a 45' angle across a path. I had to remove a large part of the tree - unfortunately this involved losing lots of flower buds. The part removed was the remaining older wood left after the winter damage of 95/96.

Other plants affected by the gales were the two previously mentioned pittosporums. Like the eucalypt, they were also leaning precariously away from the wall. I tried to pull them upright and tie them to stakes but the continuing winds loosened the supports. The top 60cm of both plants were consequently removed.

On Christmas Day the first pink pea flowers on *Indigofera australis* opened.

1997 was the third warmest in England since records began more than 300 years ago.

More hurricane-force winds brought in the New Year. The first half of January was unseasonally mild - temperatures upto 16C. Daffodil leaves were 10cm above soil level. On the 13th, the first of many snowdrops started blooming in the garden. By the 19th, the wind

had moved round to the north and brought snow, which, on melting revealed many winter aconites with their open yellow goblet flowers.

The middle of February was extremely mild due to warm air from North Africa; the temperature reaching 19C (was this summer!). My resident frogs subsequently woke up, started croaking and mating.

My first sighting of frogspawn was 4th March, at the same time as the snow and strong winds ended the mild period. This cool spell was short-lived and soon mild weather returned.

By the middle of the month the first red pea flowers on *Kennedya rubicunda* (G.H.) started opening. *Indigofera australis* (G.H.) was absolutely magnificent - the best display ever of pink racemes. Scent was supplied by *Clematis armandii* (non-Australasian) (G.H.). *Clematis* x *cartmanii* 'Joe', obtained in February, was in flower in the porch.

The first tadpoles seen on 22nd March explored the pond. Less than a fortnight later they were getting used to ice covering their home as frost returned along with cold north winds and snow showers. Some parts of Britain experienced floods.

In the second week of April, *Templetonia retusa* (G.H.) produced its first ever flowers; red pea flowers. Both pittosporums were also in bloom.

At the end of the month the first flowers opened on the spikes of *Echium pininana*, a native of the Canary Islands. Sown in early 1997, and usually biennial, my eight resulting seedlings produced large rosettes of leaves in their first year. The plants were grown in 25cm pots with the intention of transferring them to the garden this spring, to allow them to flower in situ early summer. But they surprised me by flowering early. In containers the spikes, all various shades of blue except for one white one, reached nearly 2m, but in the garden with a bigger rootrun they could have reached approximately 4m.

On the 28th April the first swallows were seen followed a few days later by house martins. England and Wales had the wettest April since 1818 with 135mm of rain compared with an average of 58.5mm.

*Corokia* x *virgata*, *Olearia* x *scilloniensis* and *Hebe* 'Hagley Park' began flowering in early May. *Celmisia spectabilis*, which has looked very unhappy at times during the wet start to the year, started forming several daisy flowers which were to begin opening during the third week of the month. *Linum monogynum*, sown in January 1997, produced its first white flowers. *Hebe* 'Midsummer Beauty' added colour to the southfacing housewall later in the month.

May seemed as cool and wet as April. June also started unsettled. Slugs and snails everywhere! Who said these creatures didn't like moving over gravel or other rough surfaces? The snails in my garden will slide over any material!

Late May/early June is traditionally the time of the year when I empty the greenhouse of all those overwintered pots of slightly tender plants. But with the cool temperatures and strong winds I was reluctant to subject these cossetted plants to such inclement weather. So,

Throughout June my greenhouse became a jungle of pots and a hazardous place in which to move about.

By the middle of June scarlet brushes were decorating *Melaleuca hypericifolia* (G.H.) while *Sollya heterophylla* (G.H.) was covered with downward-facing blue-bell flowers.




*Actinotus helianthi*, commonly known as the flannel flower, opened the first of its buds to reveal a greenish-white flowerhead. A globular cluster of tiny florets were surrounded by several white, tipped with green, petal-like bracts. Sown in 1997 and kept permanently in the greenhouse, my four plants struggled to put on much growth.

*Acmena smithii* (G.H.) produced hundreds of tiny cream flowers.

The first eucalypt to flower in the garden this year was *Eucalyptus debeuzevillei* in mid June. By the third week in June there were brushes of various shades of red in the greenhouse as two unnamed bottlebrushes and *Kunzea baxteri* joined *Melaleuca hypericifolia* - nectar heaven for bees!

An unnamed *Boronia* sp.? (G.H.) with tiny pink star-like flowers began blooming earlier this month and by the end was still putting on new flowers.

By the end of June, buds were forming on *Haloragis erecta* 'Wellington Bronze' (G.H.) and on two *Ozothamnus* bushes. Both bushes, growing in a southfacing garden border, were bought as 'Silver Jubilee' but are completely different to each other. The buds are brick-red on both plants. *Haloragis* 'Wellington Bronze' was sown in late January and the resulting seedlings quickly grew to plants approximately 30cm high x 30cm wide. Bronzed, thick, pointed, saw-edged leaves cover this multi-branched perennial. Does anyone have information on any of the *Haloragis* genus?

The unsettled weather continued into July, as did the slugs and snails. The early part of the month was dominated by flowering hebes: *Hebe* 'Autumn Glory', *H.* albicans, *H.* 'Youngii', *H.* 'Nicola's Blush', *H.* 'Purple Pixie' and *H.* 'Wingletye'. In recent years hebes have been flowering restaurants for all the summer butterflies but this year the butterflies had yet to appear. In the same border as some of these hebes, *Bursaria spinosa* was in bloom.

In the greenhouse *Clematis armandii* put on a second flush of fragrant flowers, popular with the bees.

By the third week of July the lilac, almost globular brushes on cuttings of *Melaleuca nesophila* (G.H.) were beginning to show. The parent plant hadn't formed any flowering buds so far this year. *Indigofera australis* produced a second showing of pink racemes.

In the scree bed, *Wahlenbergia gloriosa*, which in previous years produced hundreds of upturned blue-bell flowers, was a shadow of its former self. Has it disliked all the wet weather? Another plant in a half barrel container, protected to some extent by the house eaves, has fared much better.

**New Zealand Grasses**

Over the past few years I have developed an interest in ornamental grasses, many to grow in containers. The following descriptions are of my actual plants.

*Carex bergrennii* (sown 95). This dwarf sedge is only 7-8cm in height with flowering stems upto 15cm. Leaf length is 6cm; width 15mm. Colour : brown.

*Carex buchananii* (sown 98). Foliage is reddish-brown. After 9 months the leaf length is 30cm and 3mm wide. The height is 20cm, although a mature plant can reach 60cm. Fairly erect habit; just the leaf tips curling.

*Carex comans* 'Bronze Form' (sown 98), really does live up to its name. The bronze leaves are upto 18cm long x 2mm wide. Fairly erect habit.

*Carex comans* 'Frosted Curls' (bought 97). Has very pale, almost white foliage which shows up well against darker foliage. Height 22cm, with an open habit, falling open from the centre. Leaves upto 60cm long and 2mm wide; flowering stem upto 100cm.

*Carex testacea* (bought 94). New growth is green, changing to reddish-brown. Leaves upto 60cm long and 3mm wide. Wide spreading habit with a height of 20cm.

*Carex trifida* (sown 95). With a height of 65cm this sedge has a fairly erect habit similar to our native *Carex pendula*. The blue-green leaves are upto 100cm long and 2cm wide, with flowering stems upto 120cm.

The various parahebes flowered without fail during the summer months; *Parahebe* 'Kea', *P.* 'Porlock Purple', *P. diffusa* and *P. catarractae* 'White Form'.

Late July saw blossom on *Eucalyptus perriniana.*

During July I invested in three obelisks up which to grow some climbers, one being my *Kennedya rubicunda* in the greenhouse. Its original bamboo cane ladder was disintegrating. It was impossible to untangle the climber so I pruned it hard just leaving a couple of longer stems and tied it to its new framework.

Globally July 1998 was the hottest month since official records began 118 years ago. 1998 looks set to be the hottest year for 1000 years.

The first week of August was breezy and unsettled. By the second week the southern half of England was enjoying a taste of summer while the northern half suffered cloudy skies.

By mid August *Hebe* 'Great Orme' was in flower in the front garden. It was transplanted there earlier this year after spending several seasons in a tub on the patio. This

*Luzula pumila* (sown 97). This dwarf woodrush forms a green mound, 7cm high, of stiff green grasslike leaves which have brown tips. Individual leaf length is 4cm; width 1.5mm. Flowering stems are 12cm in length.

*Luzula ulophylla* (sown 98). Leaves appear slightly rolled with smooth green on inner side and woolly hairs on outer giving hummocks of a greyish appearance. Height 6cm (after 9 months). Leaf length is 5-6cm; width 2mm. Flowering stems upto 20cm in length.

*Stipa arundinacea* (sown 98). Commonly known as pheasant grass, the leaf colour ranges from brown to yellow to orange to lime green. After 9 months my plant has reached 35cm in height, with leaves of a similar length and upto 3mm wide. A mature plant produces graceful flower stems reaching 1.3m creating a tumbling cascade effect of golden brown spikelets from summer through to autumn.

is one of my favourite hebes; I love the long flower spikes which open pink and gradually fade to a white/pale pink.

The end of the month saw *Eugenia myrtifolia* (G.H.) in bloom; creamy flowers with numerous stamens.

By the beginning of September, summer had still not arrived. Windy weather made it resemble late October or November. Trees were losing leaves and there was a chill in the air some days. Heavy overnight dew showed up hundreds of cobwebs spun on hedges, heathers etc. By the middle of the month, as the swallows and house martins departed for warmer climes, I had decided to convert some lawn to gravel. It has not been an easy summer for mowing the lawn; it was either raining or the ground was too wet. Its been extra difficult this year as there were tiny frogs, the size of a thumbnail, hopping all over the wet grass.

After such a mild winter *Indigofera australis* had put on so much growth that it was touching the greenhouse roof. Despite the fact that it was blooming - it hasn't really stopped this year - I pruned it back hard, just leaving a few branches of flowering racemes. *Eucalyptus globulus*, *Melaleuca armillaris* and *Grevillea robusta* were also pruned. The eucalypt quickly outgrows its space but I can't bear to part with it. I bought it in 1987 from a nursery who sold it to me under the name *Eucalyptus niphophila*. At the time I had little experience of Australian plants and duly planted it in the garden only to watch it suffer at the beginning of its first winter. I quickly dug it up and put it in the greenhouse in a large container and later identified it as *E. globulus*. When I moved house in 1993, it came with me and was subsequently planted it in the greenhouse border. It hasn't looked back!

The parent plant of *Melaleuca nesophila* began blooming in mid September producing lilac pompoms at the ends of its branches. The colour coordinated well that of the still flowering *Indigofera australis*. *Fuchsia procumbens* planted into greenhouse hanging baskets have been flowering for several weeks.

By the middle of October, there were clusters of white berries on Acmena smithii.

October 18th saw the first frost of winter; and the end of my garden report.
(G.H. = greenhouse plant)

# BOOK REVIEW

By Pat Anderson

EUCALYPTUS A NOVEL By MURRAY BAIL, Harvill 1998

The standard Australian dismissive bywords for eucalypts is 'shadeless nevergreens'; who could blame the paleskinned newcomers for this as they trekked and mapped the brown sun-scorched expanse. Only later and slowly came the grasp of its sparse beauty, the understanding of its dangers and challenge, and the variety and tenacity of the vegetation. In much of Australian literature their wide country is an essential player. Cities and civilisation seem a more trivial phenomenon. The writing here has a strange sclerotic style. As with the water below the land, the emotional undertow is not immediately evident.

This is a modern fairytale of a stern widowed father, his beautiful daughter and the task set for a series of suitors. They live in a dry bony country track back of Bourke in northern New South Wales. Essential to the story and inextricably decorating the text are the eucalypts of Australia, over 135 of them, from the well-known *Eucalyptus gunnii* and *E. regnans* to the rare *E. imlayensis* and *E. beaninna*, many of them expanded into unexpected descriptive phrases and little essays, others passed by with common name only - the Candlebark Gum, Yellow Jacket. They all stand like whispering witnesses to the wooing of the princess.

The novel has had excellent reviews; Murray Bail is already a celebrated novelist and anthologist and although it will happily live on my shelves of fiction, it really occupies an odd middle ground between there and the botany and horticulture represented by the Newsletters of the APS.

# CELMISIAS

By Gary Dunlop

Celmisias, in most areas of Britain, may be regarded as plantsmen's plants, assuming one accepts Wilfred Blunt's definition of a plantsman as being "someone who tries to grow what he can't, preferably where it won't". Most species of Celmisias require climatic conditions which make them extremely problematical to grow in many parts of the country, particularly those areas with hot dry summers.

Celmisias are a small antipodean genus of plants within the largest family of flowering plants, the Compositaceae. They are found principally in New Zealand, but a few species are to be found on the Australian sub-continent with two rather dissimilar species in Tasmania. From the distribution one can readily deduce the genus had its origins sometime after Gondwana split from South America but before New Zealand, Australia and Tasmania went

separate ways. They may well have even inhabited Antarctica before its climate became so inhospitable.

There were until recently considered to be about 60 species of the genus but within the past decade or so, several new species have been discovered in New Zealand. The genus is currently being revised by Dr. Given, from Christchurch, New Zealand. I understand that he has created several new species and sub-species in the Australian branch of the family but his work has not been published and so the new names can not be validly used (Ed. - Gary sent me this article in April - I don't know whether the work has been published to date). It is likely that a degree of lumping will take place amongst the more numerous New Zealand species as the differences between several species are not great. The final total of species will no doubt exceed 70.

Identifying Celmisias can be difficult as, not only are they extremely variable within species, but also quite promiscuous both in the wild and in cultivation. Interspecific crosses of dissimilar species have been found in the wild that bear little resemblance to either parent.

Celmisias are normally regarded as alpine plants though a number of species grow at much lower altitudes than would fall within the normal definition of alpines. Some even grow at sea level. In cultivation, Celmisias tend to be grown mostly by alpine enthusiasts, who thrive on growing challenging plants. Some, like myself, are fortunate to live where the climate is normally suitable for growing them (Northern Ireland).

The majority of species come from the South Island of New Zealand which has a more temperate climate like the British Isles, as regards temperature at least. A few species come from relatively dry areas by New Zealand standards and are probably easier to cultivate. Some grow in scree conditions on the western side of New Zealand where the rainfall is measured in feet. In Britain 35 inches (890mm) of rain per annum, which is about the norm for my garden, is regarded as moderately wet by some and moderately dry by others. I don't think anyone would dispute 30 feet of rain per annum as being regarded as *very* wet! In other locations where the plants are not regularly drenched, they are frequently surrounded in mist.

Not surprisingly then Celmisias are the exception to the rule, that grey or silver foliaged plants are drought resistant plants which enjoy a good baking in the sun.

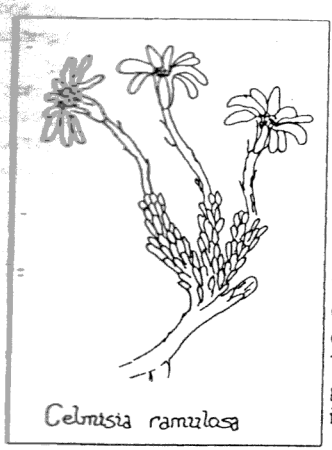
Many Celmisias will grow in ordinary garden soil, so long as it is neutral to acid. The classic, but seemingly contradictory, moisture retentive, free draining soil should suit them admirably. Celmisias need moisture, humidity and exposure. In the hotter parts of the country they are best grown in shade, but even then, some may expire if the temperature exceeds 30C. Severe frosts can also prove fatal for many species. The severe winter of 1995-6 in the northern part of the British Isles took a severe toll on this genus, particularly in Scotland. Even in those parts of the country where one would expect Celmisias to do well, I know of gardens in north Wales and the west of Scotland where they will not grow. As if to demonstrate a contrary nature, Celmisias grew quite well in the rock garden at the Royal Botanic Garden in Edinburgh, though I understand they succumbed to the cold two winters ago. It would seem that the only way to find out if you can grow Celmisias is to try growing them.

There are probably only one or two species suitable for general garden planting. *Celmisia semicordata*, one of the tufted herbaceous types, is quite variable in size, leaf colour and form; the most attractive silver leafed forms will stand out from any companion planting. The silvery rosettes are particularly eye catching, even out of flower. The most spectacular of all celmisias is the cultivar *C.* 'David Shackleton', a hybrid of *C. semicordata* with stunning silver leaves, which Helen Dillon grows to perfection in the challenging conditions of a hot dry town garden. I can only claim to grow it, which, to those who know the plant, is an immodest enough claim, as it is very slow and temperamental. Aurigans, the golden form of *C. semicordata* has an understated quality and is not quite so spectacular but probably a little easier to grow.




Most other species of Celmisias are probably best grown in a rock garden, a raised bed or a trough for the tiny species. A good thick mulch of coarse grit or fine gravel would be advantageous not only to suppress weeds but also to keep the underlying soil moist. It also provides a degree of humidity and good drainage around the base of the plant, for despite occurring naturally in very wet conditions, many species can be susceptible to rotting off around the neck of the plant at ground level. Exposure to wind helps drying out, and reduces the chances of rotting off. Most Celmisias do not shed their old dead leaves, they remain on the stems, hidden by the newer foliage. In the damper regions of the country these present a serious rotting problem, which can be alleviated by periodical removal.

Celmisias often produce little viable seed unless grown in conditions to their liking and found by suitable insects to be to their liking. The viability of seed is quite short. It is best sown fresh, any seed over 6 months old is, by repute, unlikely to germinate. I cannot advise on growing Celmisias from seed, as I have never been successful. True, I have had seedlings germinate but pricking them out proved fatal. Those who can successfully raise Celmisias from seed, all have their own theories about pricking out and potting up. Perversely, with me, this genus humiliates me by self-seeding with gay abandon. Admittedly, it is usually only the smallish species which do. I have concluded that seed from the taller species just blows too far away, whereas that of the smaller species can fall close to the parent and germinate all around it, or even within it or some small neighbour. One batch of seedlings of *C. incana* germinated 'like a cuckoo in the nest' in a tiny relative *C. sessiliflora* and had all but smothered it by the time I extracted the interlopers. Ironically, even tiny self-sown seedlings seem to transplant readily without the fatal consequences which befall their carefully tended brethren.



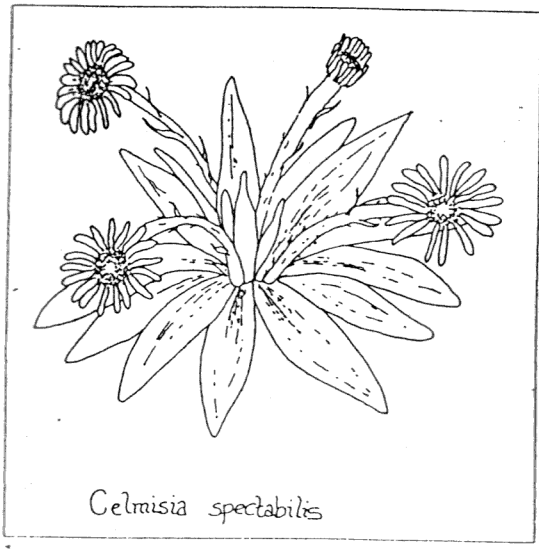

Fortunately, many of the sprawling sub-shrub Celmisias layer themselves so partially rooted pieces can be detached from the parent. The offsets of most of the tufted herbs will develop roots and can be simply divided up. Most Celmisias will also root fairly readily from cuttings either in autumn or spring.

Celmisias are, in the plant world, the equivalent of cats. They will suit themselves. No amount of TLC or expertise will make them grow in conditions not to their liking. They will perversely grow where they could not reasonably be expected to, and resolutely die even when grown in conditions which should be ideal. They are certainly well worth growing but for most gardeners they must be considered to be a high risk investment.

(This article is based on an article previously printed in the 'Hardy Plant' magazine.)

# A Couple of Celmisias

By Sue Hyams




*Celmisia ramulosa*. Bought in April 1993, as a small plant at the Harrogate Flower Show, it was subsequently planted in a scree bed the following summer. Receiving sun all year round (when it shines!), the plant is in a very exposed situation, bearing the full blast of the cold east winds.

Five years later it is approximately 15cm in spread by 20cm in height. This celmisia can be described as a small trailing to erect shrub with stiff branches covered with overlapping 1cm long leaves. Young leaves and stems are covered in tiny hairs giving a downy appearance. Flower stems are upto 4cm long; flower heads are 2-2.5cm in diameter. Each April, my plant produces a display of white daisies with centre centres.

*Celmisia spectabilis* was bought in the summer of 1995 and planted in an adjacent scree area. This is a very spectacular daisy, each year producing more and more flower heads, 3-5cm in diameter on stiff stems upto 25cm long. The leaves, arranged in a rosette, are leathery, green above and covered with a tomentum underneath; upto 20cm long.

Incidentally, Jeff Irons gave me some seed of *Celmisia* sp, a couple of years ago (I think). Seedlings emerged within the first 12 months; they were only transplanted into individual pots a few months ago and seem to be thriving.

None of my plants have received winter protection from excessive rain or frost.

# WORKING ON THE ROCK WOOL LINE

By Tim Longville

Why are cuttings of plants such as grevilleas often so difficult to persuade to root? One of the answers, at least, seems to be that U.K. potting mixes, however gritty, often become too damp and for far too long - which is not encouraging for plants from hot and dry climates.

Jeff Irons sent me an account of an alternative medium now used so successfully by Paul Allanson that his success rate with grevilleas has shot up to 100%. (Personally I'd be happy with 10% or even 1%..)

The medium is rock wool. What's that, do I hear you mutter? Why, rock that's been turned into wool, of course. And in fact that is indeed more or less what it is. That is, it's rock which has been melted at high temperatures and then forced under pressure through narrow orifices. When the results have cooled, you have a product which is composed of fine 'fibres' of rock. It's been used in the building trade as an insulator for many years. Now it's available through horticultural wholesalers, pre-formed into plugs. Such plugs, as well as providing perfect drainage, have the added advantage that cuttings rooted in them can be potted on without disturbing the roots: the roots simply grow out through the plug into the medium used for potting on.

The trouble is that, at the moment, you can only get it, as pre-formed plugs, through wholesalers, in very large quantities. Leaving aside the possibility that this might be a case where an APS 'bulk-buy' might be a sensible option, if sufficient members were interested, I have another suggestion.

Retired nurseryman David Poole from Torquay tells me that what he does, now he no longer needs rock wool in as it were 'industrial' quantities, is to buy it from his local builders' merchants in its 'building trade' form for use as an insulator. He washes it through hot water half a dozen times or so to get rid of any impurities - and even then he has the slight inconvenience of dividing it up into suitable 'cutting' quantities - but he feels that his success rates are so much greater using rock wool as compared to any of the many alternatives he's tried that it's worth the extra fiddle.

I look forward to the looks of bewilderment on the faces of assistants in builders' merchants the length and breadth of the country as they try to work out the reason for this sudden rush on rock wool ...'Do our customers know something we don't about the climate in the next millenium, perhaps?'

(Ed. Reasonably small quantities of Rockwool Cubes can be obtained from 'Two Wests & Elliott Ltd.' The smallest tray 12" x 7.5" holds either 48 small or 24 large cubs - Price £4.45. Tel: 01246 451077; Fax: 01246 260115.

# MISTAKEN IDENTITY

Thompson & Morgan's latest catalogue lists seed of *Helichrysum petiolare* "Dargan Hill Monarch." This is wrong, and arose because T&M took it from the RHS Dictionary. "Dargan Hill Monarch" is a selection of BRACTEANTHA BRACTEATA from Cunningham's Gap in S.E. Queensland. It does not come from the South African *H. petiolare*. Seed will not breed true, so should not be given the c.v. name. Incidentally *H. petiolare* was re-named *Edmondia pinifolia* several years ago.

The 1999 APS seed list will include seed of *B. bracteata* collected from British raised plants grown from seed collected at Diamond Head. The parent plants were upright, freely branching, self supporting, and had large flowers. There will also be seed of an alpine biennial form.

# NEW ZEALAND PLANTS IN CHRISTCHURCH

By Dr.Jeremy Greenwood

Remarkably few English places are twinned with their namesakes abroad. One exception is Christchurch in Dorset which is twinned with the eponymous town in New Zealand. 'Our' Christchurch is very flower orientated having recently been a 'Britain in Bloom' winner and also has a 'New Zealand garden' which according to the plaque, is planted with 'native shrubs and trees presented by the City of Christchurch New Zealand'. Part of this was replanted in 1965.

However this garden is currently a triumph of corporation gardening with masses of annual bedding plants and low maintenance shrubs, especially *Phlomis fruticosa*. There are a few types of *Hebe* (of the garden centre variety) and a couple of *Pittosporum tenuifolium* as well as the ubiquitous *Cordyline* sp. There is also a lone specimen of *Pseudopanax crassifolium* but that's it!

To misquote the *Michelin guide*, it's not worth a detour.

# A.P.S. = ANTIPODEAN PHYTOPHILIA SYNDROME

By Tony Entwistle

This is our disease - and here is how a psychiatrist might describe it.

A rare disease - only about 12 new cases per annum in the U.K.
Aetiology unknown, but evidence of mild infectivity on close (non-sexual) contact would suggest a viral cause.
Diagnosis - there is no definitive test, but the ASGAP score - based on word association has proved a reliable tool - example : if asked what a word beginning PROST brings to mind, normal persons will invariably say 'prostitute', whereas patients with our disease will say 'prostanthera'.

Symptoms - very variable, but all cases show a marked degree of behaviour disorder.

1. Anxiety-depression which seems related to SAD (seasonal affective disorder) in cold sunless weather.
   In very cold winters patients may have anankastic anhedonia*.

2. Phobic-obsessional states eg. concern about bodily health (state of gums), pre-occupation with seminal fertility and gestation.

3. Schizoid fantasies of canine/avian nature eg. that they are growing paws and wattles.

4. Paedophilia, both sexes have a fascination for black boys (xanthorrhoeophilia) and may acquire one at great cost from certain centres for a long-term relationship.

5. Echolalia and glossolalia. Sufferers converse in abstruse Latin (verbal diarrhoea) and have heated discussion as to whether the words are correct.

6. Pyromania is common, though it is interesting that patients seem to get great satisfaction at producing masses of smoke rather than fire.

Treatment - none yet found. Group therapy and support groups appear only to aggravate the condition. A form of deprivation therapy suggested (prolonged domicile north of the Arctic circle) has not yet found any volunteers.

Prognosis - poor. Much worse if both partners are affected.

An acute form of the condition (hypermanic phytophilia) may present with extreme grandiosity and hyperactivity.

Patients will sing constantly 'Waltzing Matilda' and greet everyone 'Good on you, mate.' Such cases should be confined to a place of safety under the Mental Health Act 1983.

*this is psychiatric jargon for 'thoroughly fed up'.

(Banks, Greville, Nuyts et al Annals of Psychiatry 1.4.98)

# ALAS, POOR KNIGHTS

By Tim Longville

[illegible] for plants can be a very round-the-houses business. To get from A to B you often [illegible] go (well, I tend to find myself going, at least) via X, P,Z and H. Here's an example.

[illegible] Internet chat-group I made contact with a chap called Bill King, who's connected with [illegible] University of California's Santa Cruz Arboretum & Botanic garden, and in a kindly Californian way and simply as a matter of general interest he sent me some copies of their newsletter. One issue of the newsletter contained an account and a striking illustration of a plant successfully grown in the Santa Cruz garden. The plant, previously unknown to me and immediately added to my ever-expanding list of Plants to Try, was a New Zealander - or, more accurately, a plant from off the coast of New Zealand.

It was *Xeronema callistemon*, popularly called Poor Knights Lily, because it's confined to the Poor Knights Islands and Hen Island, which lie a few miles off the coast of mainland North Island. In its native habitat it occurs on sunny rocks and other well-drained sites, usually facing the sea. It is indeed a member of the Liliaceae. Its erect, narrow, hard, folded, iris-like leaves rise to about 1m and form indefinitely spreading clumps. Its most remarkable feature, though, is its flowers: one-sided racemes up to 30cm long of red, six-petalled flowers upto 2.5cm or more across. Paul Spracklin (whose nursery, Oasis, at 42 Greenwood Avenue, South Benfleet, Essex SS7 1LD, is worth exploring if you've a taste not just for Australasian plants but for those which look generally 'exotic') suggested to me that if callistemons and melaleucas can popularly be called bottlebrushes then the Poor Knights Lily ought to be called the toothbrush!

The next question of course was could I get it. The answer is, 'Not easily (and not yet)'. Graham Hutchins is listed in *The Plant Finder 97/8* as the only person offering it. I've so far failed to find a source of seed (though I've hopes of getting some from Santa Cruz).

The question after that (note the order of priority) was, if I got it, could I grow it. The answer seems to be, 'Probably not'. At least, probably not outdoors. Not here, on the Solway Coast in Cumbria, at least, though it certainly can be grown further south: in Devon, in Cornwall and, above all, at Tresco. (I imagine it might also succeed in one of the hotter drier gardens in Co. Cork, say.)

Even if I succeeded in keeping it alive in the ground outdoors, I'd still be unlikely ever to see the famous flowers. Although actual summer temperatures on Poor Knights and similar islands aren't particularly high (New Zealand friends tell me the norm would be the high 20sC and the low 30sC being the upper limit), the more intense, ultraviolet-laden sun of the Southern Hemisphere stimulates flowering in a way that our Northern Hemisphere muddiness can rarely match. *Xeronema* flowers quite regularly at Tresco but David Poole reports that even in a sheltered coastal garden in Devon, though his plant survived for many years and spread quite happily, it never flowered, not even in the hot summers of the late 80s: so, when some years later he moved, the plant stayed behind.

The best - indeed, the only - chance of growing (and certainly of flowering) success most of us would have with this plant would be to grow it under glass. Indeed, it was seed from an underglass flowering at Ness which appeared on the APS Seedlist in 1997. (Did anyone succeed in germinating it and if so would they care to report on subsequent progress?) In case you want to try, let me paraphrase what Lawrie Metcalf has to say about methods in his *The Cultivation of New Zealand Plants*. To start with, it actually makes an attractive plant in a pot, so it is worth the attempt. You need a large-ish container for a flowering-size plant because you need to ensure absolutely perfect drainage. The whole of the lower third of the container, indeed, should be filled with drainage material. Fill up with a 'fibrous and somewhat spongy' mixture - and settle the plant right at the top with only a tiny space left for watering. Applications of liquid fertiliser during the growing season are a help and remember that, although it hates 'wet feet,' it also needs lots of moisture. Tim Dutton from New Zealand tells me that as well as moisture containerised plants, particularly, need a good air flow around the foliage: otherwise they will tend to rot. (If you're growing from seed, by the way, the notion is that seedlings damp off particularly easily so watering at that stage needs to be very cautious.)

Nevertheless, Metcalf's confidently encouraging and resounding finale is: 'In time it will mound itself on its fibrous leaf remains and build up into quite a massive clump.'

And then - just think of those scarlet toothbrush flowers with which to astonish the neighbours...

**Acknowledgements**: Round-the-houses thanks, for information and help, to: William A. Grant of Aptos, California; David Poole of Torquay, Devon; Tim Dutton of Lower Hutt, New Zealand; Paul Spracklin of Benfleet, Essex; and of course Jeff Irons of Heswall, Wirral.

# VARIEGATION IN AUSTRALIAN PLANTS

By Tony Entwistle

Each year the catalogues describe new variegated plants, so that it seems only a matter of time before every plant we grow here will have at least one variegated form. Then I thought about Australasians; New Zealand, well quite a lot - Hebes, Phormiums, *Metrosideros*, Pittosporums, *Lophomyrtus* etc. But Australia - I brought to mind *Prostanthera, Westringia, Dianella, Cordyline, Plectranthrus* and that was it. Perhaps we don't hear of them, but I don't know of a variegated *Eucalyptus* or *Banksia*, for example - not that I would neccessarily want one!

There may be some reasons; in such a large country variegation appearing in the wild might go unnoticed, and of course would not survive unless found and propagated, as less than 100% chlorophyll could not compete. Another possibility is that Australia has less ground radiation; the gene mutations that cause variegation, apart from the few caused by viruses, occur either in the developing seed embryo or the apical cells of the meristem of a shoot (a sport) and may be caused by radiation (I seem to remember that the NZ Phormium cvs were created by X-ray irradiation.)

Many years ago, when serving in the Royal Navy and docked at Plymouth, I used to wander in the Cornish byways and I remember once, in an area full of the spoil from old abandoned tin mines, so presumably high in radon or other radioactivity, that in a short stretch I found an enormous variety of variegated wild flowers - daisies, docks, dandelions, thistles etc.

Or is this just a flight of fancy on my part?

# WHY WON'T IT FRUIT

By Jeff Irons

Have you ever seen an attractive berried plant, bought one for your own garden, then found that it doesn't fruit? If so it is probable that the species has male and female flowers on different plants. With only one sex in the garden you'll never get fruits.

*Coprosma* is a good example of a genus which has male and female flowered plants. I've tried growing *Coprosma* from seed. Perversely most of the seedlings turned out to be female. Since flowering didn't take place until the 3rd year, it took quite a loss of space to accomodate all the seedlings. I was lucky and one of my 24 seedlings was a male. However I discovered that mere possession of a male plant does not guarantee success. My one & only male died during the 1996/7 winter, so now I'm back to having lots of female *Coprosma*, and no fruits.

Sometimes hermaphrodite flowers abort either pollen or ovules, so become functionally unisexual. This problem is very common in the southern heaths, the Epacridaceae. Very few books tell you about it. *Trochocarpa thymifolia* is a species which has this habit. There seems to be only one clone in the nursery trade, and it is functionally unisexual. I've been trying to get fruit by raising plants from seed. Now I have specimens with red, pale pink and white flowers, but not a single berry.

Not all Epacrids are functionally unisexual. Some are self incompatible and set fruit only when they are pollinated from another specimen. *Leucopogon* is an example of a genus which behaves like that. There is only one clone in the trade, so in the normal way of things it never fruits. You can induce it to give the occasional fruit by growing it near other Epacrids and small Ericaceae. I've sown seed of this species several times in the past 10 years, and have yet to see a single seedling. *Leucopogon fraseri* is always pictured with its pretty orange-red fruits, but your bought plant will never fruit, because it too is self-incompatible. This species seems to be 'easier' than *L. colensoi*, and seed gives some germination after two cold seasons.

# SNIPPET

Melaleuca Nursery : Michael Knowles, 'Hebrody' Herland Road, Godolphin Cross, Helston, Cornwall TR13 9RD - offers 27 spp of Melaleucas, also some other Myrtaceae and Allocasuarinas.

# CORRECTION

Keith Larkin's telephone number is 0370 608930 and not as printed in the previous members' list.

# CONTACTS

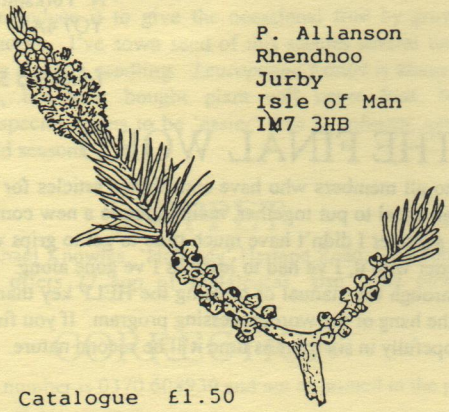
| | |
|---|---|
| Chairman | James Harris |
| Honorary Secretary | Jeff Irons<br>'Stonecourt'<br>74 Brimstage Road<br>Heswall<br>Wirral<br>L60 1XQ<br><br>Tel:0151 342 1703 |
| Treasurer | Dr. A.J. Entwistle<br>'Ophrys'<br>113 Station Road<br>Delamere<br>Cheshire<br>CW8 2HZ<br><br>Tel:01606 882306 |
| Newsletter Editor and Producer | Sue Hyams<br>'Applegarth'<br>Knayton<br>Thirsk<br>N. Yorkshire<br>YO7 4AS<br><br>Tel:01845 537407 |

# THE FINAL WORD

Once again, many thanks to all members who have contributed articles for this issue. Issue 21 has taken me longer than usual to put together, mainly due to a new computer we bought earlier this year. Over the summer I didn't have much time to get to grips with it so, having decided to type the newsletter with it, I've had to learn as I've gone along. Some nights I've spent more time hunting through the manual or pressing the HELP key than actually typing! I think I'm finally getting the hang of the wordprocessing program. If you find any mistakes - I apologise in advance. Hopefully in six months time it'll be second nature.

COPYRIGHT (C) AUSTRALASIAN PLANT SOCIETY

# Australian & New Zealand Speciality Shrub Catalogue



P. Allanson
Rhendhoo
Jurby
Isle of Man
IM7 3HB

Catalogue £1.50

List Free of Charge