AUSTRALASIAN PLANT SOCIETY NEWSLETTER



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AUSTRALASIAN PLANT SOCIETY

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EDITORIAL

Once again the AGM was very poorly supported; only six people turned up and most of them are on the committee. This is the one opportunity each year to meet like-minded people and for us to hear your views and comments to help us keep the Society growing. We are considering holding next year's meeting at Wakehurst in the hope that having a garden to visit may attract more members. If you could give us some indication as to whether or not you are likely to attend, it would be very useful. Just drop a note in with your subscription fee.

Those of us who did attend, enjoyed an excellent illustrated lecture on the flora of New Zealand by Professor Peter Bannister of Dunedin University.

At the Chelsea Flower Show, Jeff Irons and Tony Entwistle helped to staff the Australian Garden. Apart from the Chairman and his wife, the only APS visitor they noted was Jeff Layman who was allowed onto the garden to get a closer look. A Silver Medal was awarded to the exhibit.

TREASURER'S REPORT

At the AGM this year it was decided that the annual subscription should rise to £6.00 p.a. from January 1st 1995, and that the charge for seed applications should rise to £2.00.

I hope that there will be no further changes for at least 3 years.

There are good reasons for this increase : I estimate that our annual expenditure will exceed £400 p.a. over the next few years, and our membership has tended to 'stick' at around 80, the number of resignations each year equalling the number of new members. Admittedly we have done well with new members this year [partly due to Chelsea] and now currently stand at 95.

We do not know why most people resign from the society but two letters I have received both say that they found our newsletter too learned and abstruse. They may have a point, but I do feel that the remedy lies in members sending in to Sue Hyams more contributions for the newsletter themselves, about their own successes and failures; if the officers have to 'make up the space' it perhaps tends to become over-specialised.

Several members have asked whether they can pay their subscription by standing order. Certainly they can, and in fact it would save a lot of reminders if most members did. You will therefore find a form enclosed to take to your bank if you do decide to pay this way.

The Society's bank is National Westminster, 146 Widnes Road, Widnes, Cheshire, WA8 6BB. Code 60-19-24, Account No. 29865832.

Either way, please remember that subscriptions are due <u>January 1st 1995</u>.

Tony Entwistle

PLANT NAMES IN THE NEW ZEALAND FLORA

by Brian Halliwell

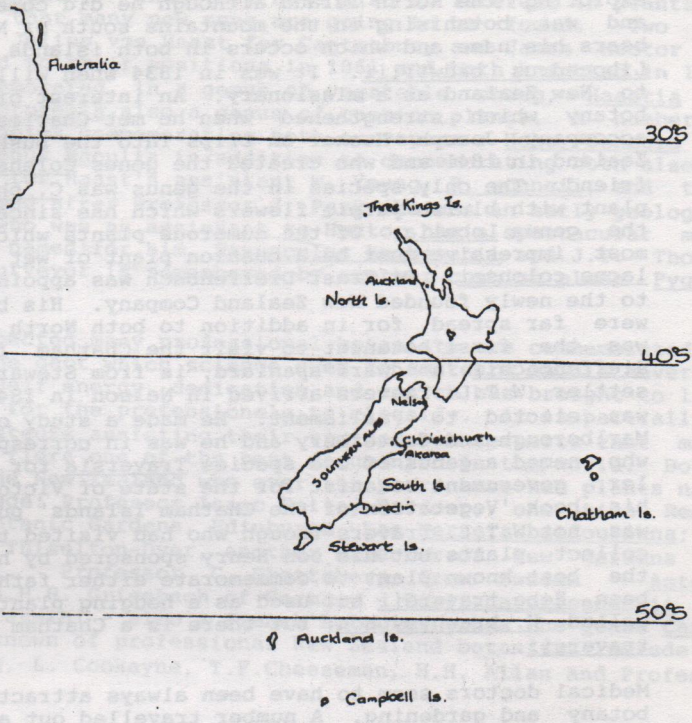
In a review I wrote for the Alpine Garden Society in June 1975 on 'New Zealand Alpine Plants' by Mark and Adams I commented on the large number of commemorative plant names. This article is a result of research I have carried out to learn something more of people whose names have been applied to plants.

New Zealand was discovered in 1642 by Abel Tasman. In a skirmish with the Maories some of his crew were killed, and although Tasman never set foot on land, there is a fern confined to Three Kings Island which commemorates him : Davillia tasmanii. More than 120 years were to pass before European exploration was to begin. In London, the Lords of the Admiralty mounted an expedition to proceed to Tahiti where scientists could observe the transit of the planet Venus across the sun in 1769. The astronomers were to sail in HMS Endeavour under the command of Captain James Cook. Accompanying them was the wealthy Joseph Banks, an amateur botanist and Fellow of the Royal Society who took with him Daniel Solander who had trained under Carl Linnaeus. After the visit to Tahiti, Cook had orders to proceed further into the Pacific to the southern land not yet explored. This was to be the first occasion on which New Zealand plants were seen by Europeans. Of the many plants which have been named both for Cook and Banks are : mountain flax, Phormium cookianum and one of the cabbage trees, Cordyline banksii; the most beautiful of the few named for the professional botanist is the taurepo, Rhabdothamnus solandri. Although Banks and Solander were to accompany Cook when he made his second voyage their places were taken by Johann Forster, another Fellow of the Royal Society and his son George, a botanical artist. The elder Forster who, although he had an interest in natural history was inexperienced in botany, recruited a Swedish botanist, Anders Sparmann at Cape Town on the way out to New Zealand. Although there is a genus Forsteria and puataua is Clematis forsteri, no New Zealand plant seems to bear Sparmann's name. On Cook's last trip he had William Anderson as ship's surgeon who had accompanied Cook on his second trip. He was to die of consumption in the closing months of 1778. A few months before Cook was killed in Hawaii. Although he is reputed to have discovered karaka, tawa and kawakawa there seem to be no plants which commemorates him. Those in the genera : Celmisia, Hebe and Hymenophyllum seem to be named after J.B.Armstrong, an early New Zealand botanist.

Captain George Vancouver is better known as an explorer of the Pacific North West even though he did visit the southern Pacific Ocean. As botanist on his ship Discovery he had Archibald Menzies who like his captain is more usually associated with botanical exploration of western parts of the United States. One of the New Zealand plants which bears his name is the silver beech, Nothofagus menziesii. Captain James Ross the arctic explorer also explored the fringes of Antarctica. On his ship HMS Erebus he had as surgeon naturalist Joseph Hooker who was to succeed his father as Director of Kew Gardens. From his visit Hooker was to publish in 1852 'Flora Novae-Zealandiae' and in 1864 'Handbook of the New Zealand Flora' which is dedicated to Sir George Grey who was to become Prime Minister [after whom Senecio greyi, Cook Strait Groundsel is named]. There are two Maori onions which commemorate the ship's master and botanist, Bulbi-

nella hookeri and B. rossii.

Ships from other countries with captain naturalists and botanists were visiting New Zealand.



Dumont D'Urville who was to make at least three visits had in 1843 been impressed with the harbour at Akaroa, at a time when the French were considering colonising this new land. He has named for him a mountain buttercup, Ranunculus urvillei. An early visitor to New Zealand had been Lois Claude de Saules de Freycinet who was to become an admiral and was to be founder of the Paris Geographical Society. For him was created the genus Freycinetia and in keikei the specific epithet in F. banksii commemorates an English explorer. In 1840 the vessel Aubre was sent out to Akaroa with doctor M.E.Raoul as surgeon. He was probably the first botanist to explore the Southern Alps and see mountain plants growing there. He has given his name to the genus Raoulia which includes both vegetable sheep and scabweeds. A plant which he discovered on Banks Peninsula which was common around Akaroa came to be called Hebe raoulii; another species of this genus also from Banks Peninsula H. lavaudeana is named for the captain of a ship which brought him to New Zealand.

There were early explorers with an interest in botany who recorded as well as collected plants of this new land. Allan Cunningham had been working at Kew when he was chosen by Sir Joseph Banks to go into the Southern Hemisphere to bring back plants for the Botanic Gardens. His first trip was to Brazil and his second to Australia from where he proceeded to New Zealand. Allan Cunningham was to name Cyathodes fraseri for Charles Fraser who was superintendent of the Sydney Botanic gardens. When he died, Allan Cunningham's brother Richard was appointed to the position and he too visited New Zealand where he is credited with the discovery of napoka, Hebe speciosa. Viola cunninghamii is named for one of the brothers - but which?

John Carne Bidwill was an early settler and spent much of his life exploring the North Island although he did come to the South Island and was botanising in the mountains south of Nelson; a plant which bears his name and which occurs in both islands is the mountain cedar Libocedrus bidwillii. It was in 1834 when William Colensoi went out to New Zealand as a missionary. An interest of his leisure time was botany which strengthened when he met Charles Darwin. He was to accompany Joseph Hooker on trips into the bush when he came to New Zealand in 1841 and who created the genus Colensoa to commemorate his friend. The only species in the genus was C. physaloides, a prostrate plant with bluish-purple flowers which has since been reclassified in the genus Lobelia. Of the numerous plants which bear his name, the most impressive must be a cushion plant of wet highland moors, Phyllacne colonsoi. Dr Ernst Dieffenbach was appointed naturalist doctor to the newly founded New Zealand Company. His botanical explorations were far spread, for in addition to both North and South Islands he was the first botanist to visit the Chatham Islands but Aciphylla dieffenbachii a dwarf spaniard, is from Stewart Island. An early settler, W.T.L. Travers arrived in Nelson in 1848 and four years later was elected to Parliament. He made a study of plants of Nelson, Marlborough and Canterbury and he was in correspondence with J. Hooker who named a genus of one species Traversia for him. Baron von Mueller, government botanist for the state of Victoria, dedicated to him his book 'Vegetation of the Chatham Islands' published in 1864. It was not W.T.L. Travers though who had visited the Chatham Islands to collect plants but his son Henry sponsored by his father. Probably the best known plant to commemorate either father or son would have been Hebe traversii but used as a hedging plant but this now must be called H. brachysyphon; but there is a Chatham Island shrub, Olearia traversii.

Medical doctors seem to have been always attracted to natural history, botany and gardening. A number travelled out as ships' surgeons and spent time botanizing and collecting plants. Andrew Sinclair had sailed as ship's surgeon on a number of voyages of exploration which had included New Zealand. It was whilst he was in Sydney that he met Captain Fitzroy who was to leave for New Zealand to take up the post of governor. As a Colonial Secretary Sinclair devoted his spare time to botany and collecting plants for Joseph Hooker who was to name for him Jovenalla sinclairii, the Maori calceolaria.

David Lyall had been assistant surgeon on HMS Terror which had accompanied Captain Ross in HMS Erebus. He was to make a number of visits to New Zealand and amongst the areas which he explored were Stewart Island, Auckland Islands and Campbell Islands. One of New Zealand's most beautiful flowers, the Mount Cook lily, Ranunculus lyallii bears his name. David Monro trained as a doctor and sailed as a ship's surgeon probably as a means of reaching New Zealand. He was to join Mr. F. Tuckett who was appointed a surveyor for Otago, which allowed Monro to visit much of the South Island where he was able to observe and pioneer collecting in the Southern Alps; he was to become a Member of Parliament, eventually speaker of the House of Representatives and in 1866 was knighted by Queen Victoria. Of the many mountain plants which bear his name one of the most beautiful is a mountain daisy, Celmisia monroi.

Surveyor/geologists have better opportunities than most for explora-

tion in a new country. When they have also an interest in plants it is inevitable that many new ones are going to be found. Two such surveyors were Julius von Haast for Canterbury and James Hector for Otago; appointed to their positions in 1861 and both knighted in 1886. Haast is commemorated in a genus of vegetable sheep, Haastia and Hector has Hectorella also a genus of cushion plants. A number of genera have species commemorating both surveyors : Hebe, Senecio and Olearia. The genus Raoulia in addition to commemorating both also has a species named for Haast's assistant W. Young, R. youngii, and there is R. parkii named after Professor J. Park who was an early geologist. John Buchanan who was an assistant to Hector has a spectacular mountain buttercup named for him, Ranunculus buchananii and J.T. Thomson also an Otago surveyor is remembered by another cushion plant Pygmaea thomsonii.

As might be expected many professional botanists are commemorated in plant names. The debt which science owes to amateurs should never be forgotten for their energy, dedication and search has brought to light many new plants for the professionals to classify. It is partially as a result of amateurs assisting their trained counterparts that makes the New Zealand flora one of the best documented in the world. Botanists from outside New Zealand who over the years have had plants named for them include: Professor Isaac Bailey-Balfour, one time Regius Keeper of the Botanic Gardens, Edinburgh, has Nertera balfouriana; Sir Wiliam Turner Thiselton-Dyer, another Director of Kew Gardens has Euphrasia dyeri. Professor C. Skottsberg from Sweden - Astelia skottsbergii; A.H.R. Grisebach of Germany - Gentiana grisebachii and Count Henri de Cassini - also a French botanist - has the genus Cassinia. The best known of professional New Zealand botanists include: T. Kirk, R.M. Laing, L. Cookayne, T.F.Cheeseman, H.H. Allan and Professor Arnold Wall.

So little seems to have been written about the amateurs: Donald Petrie, a school teacher has Coprosma petriei; W.B. Brockie a well known grower of alpine plants and a one time curator of the Otari Plant Museum is commemorated by the most beautiful of bluebells, confined to Castle Hill Basin, Wahlenbergia brockiei; John Enys was joint owner with his brother of the Castle Hill Station and although it was he who discovered Ranunculus paucifolius whose preservation was to make conservation history, it is another species by which he is remembered, R. enysii. Here are only three, there are countless others - who for instance was Captain Rough who gave his name to two choice scree plants, Stellaria and Lobelia roughii; J. Speden and P. Goyen who are commemorated in Aciphylla spedenii and Raoulia goyeni?; Even in reference books Cassinia vauvilliersii is recorded as named after Vauvilliers but with no further details.

It is surprising how few plants have been named for women. I have been able to find only three: Mrs M. Baxter with Gingidium enysii var baxteri and Ruth Mason and Margaret Bulfin both botanists at DSIR with Colobanthus masoni and Epilobium margaritae. To complete this story where better to end than with two people associated with CAGS [now the New Zealand Alpine Garden Society] Lance MacCaskill with Hebe raoulii var maccaskillii.

There is scope for much more research about collectors of New Zealand plants. Perhaps some readers of this journal will continue where I

have left off to provide another article or a series for Bunty Roi.

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A Gardeners Dictionary of Plant Names; Cassel, London, devised by W.T.Stearn, published by Cassel - 1971.
The Botanical Explorers of New Zealand by Rewa Glenn published by A.H. & A.W. Reed - 1950.
New Zealand Alpine Plants by A.F. Mark & N.M. Adams published by A.H. & A.W. Reed - 1973.
Flora of New Zealand by H.H. Allan publsihed by R.E. Owen - 1961.

ANSWERS TO RECENT QUESTIONS

Q. I have grown Clianthus formosus [Sturt's Desert Pea] from seed, in a sandy compost. How do I keep it long enough to flower? Is it a perennial?

A. The present botanical name is Swainsonia formosa, the species was transferred about 3 years ago. It is a prostrate annual or perennial herb which requires deep well drained sandy or gritty soil, which can be acid to slightly alkaline.

The usual British practice is to graft seedlings onto a rootstock which is resistant to our cool damp conditions. The common species used is Colutea arborescens, but Clianthus puniceus is preferable. Different techniques are required and with Clianthus a 3-4 day old Swainsonia seedling is grafted onto a 2 week old Clianthus seedling. Fertilizer will help growth - remember that it is P&K that are needed - but the prime needs are sun and warmth.

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Q. My Grevillea plants have put on a lot of growth but haven't shown any signs of flowering. I understand that they don't like fertilizer, so how do you stimulate them to flower?

A. You do not say whether the Grevilleas are in pots or in the garden. Since you live where the soil is chalky I assume that they are in pots. It is common for cutting raised Grevilleas to be received in flower, then to miss a year, while they establish themselves. Be patient, but do tip prune your plants so that they make compact, bushy growth.

It isn't quite true to say that Grevilleas do not like fertilizer. In common with many other Proteaceae some of them cannot stand what to us is a 'normal' level of phosphate. This disaffection is specific and for example, Grevillea rosmarinifolia [and hybrids with it as one parent] are scarcely affected. Grevillea robusta is unaffected. Pot grown plants will benefit from a slow release fertilizer or liquid feeds. Plants in the garden do not require fertilizer.

*****

Q. I've had two Banksia plants that have died quite quickly, their leaves turning dry. They were in a sandy, well drained, slightly acid compost. Do they prefer wet or dry?

A. Banksias need an acid, very well drained compost. You should try to avoid fluctuating moisture levels, and keep them almost dry over winter.

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Q. What conditions do Kangaroo Paws like? I have lost two plants in the last year, probably by overwatering. I have now re-potted my remaining plants in very well drained compost; almost entirely sand and grit though with a little peat. How are these plants made to flower?

A. Anigozanthos need a very well drained compost and plenty of light. They should be re-potted every year and kept growing vigorously. The foliage of A. preissii dies down before next year's foliage appears.

Anigozanthos are attacked by by a fungus which causes ink coloured marks on the leaves, and kills them. A. manglesii is the most, susceptible and A. flavidus the least susceptible. All you can do is to keep the plants growing strongly and spray with a fungicide as soon as trouble is seen. A. manglesii should be thrown away after flowering.

LEUCOPHYTA BROWNII

by Brian Halliwell and Jeff Irons

This species has been in the APS seed list for a number of years, initially under its old name of Calocephalus brownii [Cass.] F.Muell. Although well known as a cool greenhouse and summer bedding plant, it is scarcely ever requested.

Native to coastal parts of southern Australia, including Tasmania this small shrub makes a tangled mass of silvery white stems. They stand out in the sunshine. It is a matter of personal opinion whether the small yellow flower heads, which appear in August, are a detraction or a bonus. We like to think that on a large mass they add to the appearance, but that on a small clump they should be removed unless seed is wanted.

Although found on sand dunes the species, known as Cushion Bush, will stand alkaline soils. They must be well drained, for over-watering in a wet soil will result in death. That apart this is an easy and showy species. In the cool greenhouse it makes an ideal pot plant. Two or three years ago Ann Swithenbank eulogized over the merits of Olearia lepidophylla as a foliage plant for the winter conservatory. When compared with L. brownii it is a poor thing.

The APS seed was collected on Cape Otway in Victoria. Once established plants grown from it might be hardy in seaside gardens in southern and western Britain. They certainly warrant a trial in more southern places.

As a bedding plant it is best to start with cuttings, which can be taken in late summer. Not all clones are easy to root though. Rooted cuttings must not be potted on when light levels are low, in December and January. Pot grown plants need a light trimming to shape before they start into growth.

The name Leucophyta means white plant. We shall never know why it was decided to transfer L. brownii into Calocephalus, a genus with the name beautiful heads. Today's taxonomists have decided that the original name is the correct one, and have made Leucophyta brownii a monotypic genus.

GERMINATION OF EPACRID SEEDS

Nigel Marshall reports that wild seeds of Dracophyllum colensoi and traversii germinated in quantity in February 1994, two years after sowing. A Richea took over a year to germinate.

Epacrid seedlings have very fine roots and often cannot be handled for more than a year after germination. Even then it may be necessary to move them in small clumps, not singly. Richeas are particularly liable to root damage when being transplanted. Trochocarpa can be moved easily after a year.

Some Ericaceae exhibit similar traits. The South African Erica oatesii nearly always dies when transplanted at one year old. If left for three years before transplanting it can be moved safely.

OBITUARY

We are sorry to announce the death of Thomas Ross. Known to members as a contributor to the Newsletter, he was also the donor of most of the Acacia and Eucalyptus seeds in our seedbank. Since some of the seeds are very long lived, we shall all remember him with gratitude for many years to come.

AUSTRALIAN PLANTS IN CORSICA

by M. Courtois

The island of Corsica with an area of 8720 square km [3366 sq miles] is situated in the Mediterranean Sea. It is a mountainous island [the altitude of its highest point, Monte Cinto, is 2706m/8880ft] and it has a population of 250,000.

Summer weather is hot and dry [for 3 months or more there is no rain at all except for a few storms in the mountains; the consequence being lots of fires]. Winter is mild and not too wet. On the coast there is no, or very little, frost but it becomes more significant the higher the land. At an altitude of 800m [2625ft], there is winter snow.

On the coast, and in the surrounding plains grows an abundance of exotic flora chiefly coming from South Africa and also, of course, from Australia and New Zealand.

Eucalyptus globulus must be the first Australian species which has been planted in Corsica. I recently read that it was introduced to dry, marshy areas here in 1860. This explains why you can find in the island small forests of Eucalyptus as well as isolated specimens whose diameter and height can be very impressive [but which are never as

high as Australian ones, of course!]

Eucalyptus camaldulensis is also well spread in the country. In private gardens we can find E. gunnii as well as some species with white, red or pink flowers.

Eight species of Acacia can easily be found here, especially A. dealbata, A. floribunda, A. elongata and a thorny variety with big yellow pompons sold under the name of A. eburnea of which I have never found a trace in the catalogues and books I have received from Australia. I presume it is an African species. Some of them such as A. dealbata have naturalised themselves here and there. [Ed : A. eburnea is not Australian, and is not given in the latest RHS Dictionary].

Paraserianthes [formerly Albizia] lophantha commonly grows in parks and gardens.

Some species of Grevillea are also well represented near Ajaccio [the place where I live]. There are specimens of Grevillea robusta which are more than 15m [49ft] high. We can also find G. rosmarinifolia and juniperina and very recently a hybrid known as G. 'Desert Flame'.

Callistemon are frequently found in parks and private gardens but curiously enough, they are only the red flowers species [C. citrinus, C. laevis...Ed : we think laevis is rugulosus].

In recent years Leptospermum species have been more widely grown, known in Corsica as the "Myrtle of Provence"; Provence being a region in the south east of France.

Melia azedarach is very abundant especially in parks. Also present are Pittosporum tobira, Myoporum laetum and M. heratum. Although they become trees they are often used for hedges. Pittosporum tobira nana is a useful rockery plant.

Various Phormiums decorate parks and gardens. They are often accompanied by Cordyline.

There are also lots of species of Hebe, as well as varieties of Indigofera, Pandorea jasminoides, Parahebe, Alyogyne huegelii and Cycas revoluta.

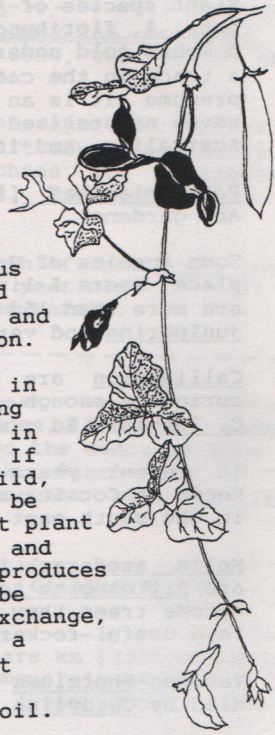
Of course, in comparison with the extreme richness of Australian flora, all this is not very much, but I am convinced that lots of species can easily adapt themselves to Corsica. That is why for 3 years, I have been sowing all kinds of seeds such as new varieties of Acacia, Eucalyptus, Callistemon, Melaleuca [which can't be found here]. 3 years old seedlings of Melaleuca nervosa, decussata, epicifolia, thymifolia and nodosa, Baeckea, Hakea, Kunzea etc are all thriving here [1-3m/3.3-10ft high].

In the future I will know the varieties which can survive here, and although it is a long and exacting task because I am alone, I hope I can persuade other Corsicans to experiment with these new species.

RUNNING POSTMAN

by Brian Halliwell

Kennedya prostrata which is a legume has several stems which are prostrate and can reach 60cm [2ft] in length. There are alternate trifoliate rather hairy leaves and from the axils flower stems arise which carry one or two scarlet, occasionally crimson or white flowers about 2cm [0.8"] in size. The bright scarlet of the usual form corresponds to the colour of uniforms worn by postmen in the early colonial postal service, hence the common name.



This is the hardiest of some 15 species of a genus endemic to Australia. K. prostrata is widespread in states of Tasmania, Victoria, New South Wales and Southern Australia, often as a weed of cultivation.

It can be grown on rock gardens, used as fillers in borders of perennials or shrubs, used in bedding or grown with annuals. It is perennial although in this country it is better treated as an annual. If plants establish, summers are warm and winters mild, seed is produced which, as with many legumes can be forceably ejected when ripe. Even if the parent plant is killed by winter cold, these seeds survive and will germinate. Self sown seed, though, often produces plants which are late flowering. If seed can be collected or you obtain some through the seed exchange, soak for 24 hours in cold water and sow each in a small pot in April under protection; plant out where they are to flower in late May. Choose a position in full sun in a rather dry and poor soil. In shade, where soil is rich and moist, growth becomes rampant and flowering can be sparse.

THE CHEF'S HAT CORREA

A Note and some Questions

by Tim Longville

Thanks to the generosity of John May, I"ve recently become the proud possessor of a plant of Correa baeuerlenii, 'commonly' called the chef's hat correa. [This is one of those cases where 'commonly' is almost the reverse of le mot juste. How many people, in this country at least, have either heard of the plant or its supposedly common name?]

A rarity of this sort makes a slightly worrying gift for the less than expert. You imagine the donor's innocent enquiry next year :'By the way, how did you get on with...?' - and your embarrassed confession of its death. So, naturally, I've been finding out as much about it as I can. This, so far, is what I've learnt.

The species has a limited distribution in the wild and is not often seen in cultivation, even in Australia. It occurs on or near to the south coast of New South Wales, in damp gullies and on the banks of streams. Its name honours its original discoverer and collector, William Baeuerlen, who found it in the Clyde River district in the early 1880s.

Apparently, mature specimens make small to medium shrubs to around 2m [6.6ft] in height and width. The leaves are quite small and narrow and a handsome glossy dark green. The greenish yellow flowers mostly occur in winter and it is their peculiar shape which gives the species its 'common' name. The cylindrical corolla, to 3cm [1.2"] long, is accompanied by a calyx with an expanded base, so that the pendent flowers look like upside-down chef's hats. In conversation, Steve Law, who has had experience of the species flowering in Australia, suggested that rows of the flowers looked more like lines of chewed green apple cores! Hardly a flattering description but it will give you some idea of the overall odd effect.

The preferred soil and situation in cultivation is said to be a well-mulched but well-drained soil in a moist and shady situation. Although the species withstands frost in Australia, it is unlikely to be hardy here : John May, for instance, hadn't risked the attempt to over-winter it outside, even on the Mull of Galloway.

Cuttings have the best chance of success if taken either in late summer or autumn or early in the new year [February, say] before new growth begins.

That's the information, from books and more expert friends, that I've acquired so far. My questions are three.

[1] Has any member more information about the species' hardiness in the UK than the guesstimates, however well informed, I'm currently working from?

[2] My plant is at the moment around half a metre [19"] tall and, I think, in its third year. Does anyone know at what size and age it is likely to flower?

[3] Most generally of all, has any other member attempted to grow the species in this country, inside or outside, and, if so, what has been their experience of it?

Any information or ideas which might help to avoid the embarrassing imaginary conversation with which I began - and which might help to bring a little closer the sight of those rows of well-chewed apple cores..- would be most welcome.

Tim can be contacted at 4 Fleming Place, Maryport, Cumbria, CA15 6ES.

POISONOUS PLANT

Brachyglottis repanda x greyi. This splendid tender foliage plant is POISONOUS, the scented flowers more so than the leaves.

GERMINATION OF ALPINE NEW ZEALAND BUTTERCUPS
by Brian Halliwell

Of perhaps 36 species of Ranunculus native to New Zealand, those from mountains are most desirable to gardeners. Most though are difficult of cultivation and are for the specialist grower. Anyone who rises to the challenge of trying to grow any of these will have to start with seed.

The first difficulty is to germinate the seed. It is not so much a difficulty as a lack of patience for gardeners tend to discard seed containers far too early. Seed of many rarely germinates in under two years.

Sow seed in containers on the surface of a gritty well drained lime-free soil based compost. Take a quantity of dry coarse sand or fine gravel and sieve out dust and fine particles. Lightly scatter some coarser material over the seed allowing most to be visible between the granules. When labelling ensure that the ink that is used does not disappear through being constantly wet or fade with prolonged exposure to sun. Plunge containers to their rims outside where they can be exposed to winter cold. Covering pots with netting will prevent birds from scratching in the pots. No seed container should be discarded under three years. There are reports of some Ranunculus species continuing to germinate a few at a time over a period of ten years.

Germination seems to speed up if packets of seed are put into water-proof containers in a domestic refrigerator for at least a month prior to sowing. If mature seed still green is available for sowing, germination time can be cut by as much as a half. This is only possible if your supplier can collect seed from the wild or the garden.

SNIPPET

Do you grow Raoulia tenuicaulis? We have been told that the plant grown in Britain under that name is the true R. australis. Allen's Flora of New Zealand includes a key to Raoulias. It states:

> R. australis : Inner phyllaries with bright yellow radiate tips, all or most of leaves not more than 2mm [0.08"] long.
> R. tenuicaulis : Phyllaries with dark or scarious tips, leaves laxly or not imbricate, spreading.

A phyllary is a bract on the flower head of a daisy - the bracts are below the straps of the ray florets on the flower.

Scarious means thin and dry, may or may not be translucent, and is not green.

When examined according to these criteria a yellow-green plant bought as R. tenuicaulis keyed out as R. australis. There is also a var alba.

THE STIRLING RANGE WESTERN AUSTRALIA

by Tony Entwistle

This is a range of hills and peaks up to 1000m [3300ft] and some 64 km [40 miles] in length running in a NW/SW direction east of Albany in Western Australia. It has many endemics and a visit there [guided by the local SGAP secretary] was undoubtedly the highlight of my visit to Australia in their spring. In places the floral displays almost rivalled Chelsea Flower Show!

Vegetation grows right to the summits except for the rocky bluffs and crags. Our first stop in the foothills just outside the National Park area revealed a huge variety of plants in a short distance of roadside. Beneath a background of yellow Daviesia, white smokebush [Conospermum] and Sterlingia were masses of orange 'cat's paw' [Anigozanthos humilis], numerous orchids, mostly Caladenia, Hemiandra pungens and yellow and white Pimeleas.

Calectasia cyanea abounded and further uphill the flora was a mass of yellow and pink Petrophile and Isopogon, with the occasional taller bright yellow Dryandra cuneata [much more impressive than the dowdy D. formosa]. In another area the dominant plant was the bright red Beaufortia heterophylla with Hakea cucullata, the taller white H. oleifolia and the beautiful endemic blue smokebush Conospermum dorrienii. Still higher up were mostly Myrtaceae, Leptospermum, Melaleuca, Calytrix and Chamaelaucium.

In one area of an acre or so, presumably the site of a previous bush fire, the sole plants were young Banksia coccinea, all some 60-90cm [2-3ft] high and flowering at their tips. The effect of this natural bedding scheme was remarkable.

Towards the north of the range were many 'blackgins' [Kingia australis] and yellow flowers of Eucalyptus preissiana, Verticordia chrysantha and a host of small wattles, Acacia drummondii especially. Beneath them I saw the sessile-flowered 'honeypot' Dryandra pteridifolia and white Sphenotomas.

Soon after leaving the range heading for Albany were masses of the scarlet Lechenaultia formosa along the roadside ; botanical observation was a little difficult at times because of the strings of kangaroos leaping across the road and over the car, though my guide remained unperturbed!

Splashes of brilliant blue were from Dampieras, which seemed to replace Lechenaultia biloba so common in the northern sandplains. I was fortunate in seeing one of the 'Mountain Bell' Darwinias which are endemic to different peaks on the Stirlings - the lovely red D. oxylepsis [Gillan Bell], which was shown me by an 86 year old Mr Gillan, son of the man who discovered it. There were a host of 'pea' flowers throughout the area, many fiercely prickly; my favourites were the Chorizemas with their startling combinations of orange, yellow and pink.

To the east of the Stirlings is another smaller range, the Barrens. Here I was able to see the extraordinary variegated Royal Hakea, H. victoriae, and the Qualup Bell, Pimelea physodes growing with the Bushy Yate, Eucalyptus lehmannii with its peculiar spiked fruits.

LEPTOSPERMUMS

by Jeff Irons

Leptospermums were among the earliest Antipodean plants grown in Britain. L. scoparium from New Zealand was introduced in 1772 and L. lanigerum from Tasmania was grown here in 1774. It was 1800 before Australian L. scoparium was grown in Britain.

The German father and son botanists Forster and Forster named the genus in 1776, but other botanists had difficulty in understanding its classification. In fact classification had to wait until 1979 when Briggs and Thompson explained the inflorescence. Today about 83 species are recognised, for more have been added since Thompson's 1979 revision. One of them, L. scoparium is found in both Australia and New Zealand, three are found in New Guinea and S.E. Asia, and all the others are endemic to Australia.

Most species have white flowers and there is a bewilderingly large number of cultivars of the red and pink flowered variants of L. scoparium from New Zealand. The doubles were bred in California by Lammerts. He selected Ruby Glow and Red Damask from 830 out of 1000 seedlings that were grown on to flowering. Three species have strongly fragrant foliage. The long flower sprays of several species make excellent cut flowers.

Cultivation

Leptospermums are found in a wide range of habitats from montane to tropical and inland as far as semi-arid areas. Most sites are moist, often for long periods, and the genus does not occur in dry places. L. laevigatum tolerates alkaline soil but in general soils should be acid or only slightly alkaline. In general a sunny site is preferred though many will grow well in dappled or partial shade. Most species that can be grown outside in Britain flower in early summer. Frost hardiness depends upon seed origin and growing conditions, and there is little information available in the literature. Bean considers that most of the species listed by him should be hardy to about -10°C [14°F], and lists L. scoparium as being hardy to -15°C [5°F]. At Kew L. rupestre has survived -17°C [1°F] without injury.

Seed should be surface sown on an open lime-free medium. I use my standard mix of equal parts of peat and seed grade Perlite, standing the seed pot on a bed of grit which is saturated with water. This ensures that the seed compost is always moist. The seed pots are in a sunny part of the greenhouse. Sowing the seed in May or June ensures reasonably high temperatures and germination occurs within 7-10 days. Seed sown earlier in the year can take months to come up. Seedlings are pricked out as soon as they can be handled, usually when about 1cm [0.4"] high. Excessively long roots are pinched off. Since I am interested only in hardy species all seedlings are planted out in the April after germination, for nature to take its toll. Flowering usually occurs in the third year.

Plants should be tip pruned from an early age, and pruned after flowering by cutting off the spent shoots. Some species are stated by Bean [without specifying which] to re-generate badly from old wood. My own limited experience has indicated that L. lanigerum and L.

grandifolium can be cut back hard without damage. In Australia many species are coppiced or used for clipped hedges. The long slender growths can be fed easily through the slot of a domestic shredder.

Botanical Details

Shrubs or small trees, often with attractive papery bark which develops with age on the larger branches. Leaves are usually dull green, but some species have attractive coloured or silvery young growth. Some species have red young stems and/or purplish new growth. Flowers are usually white and are often profuse. Some species have pink buds which open white; a few have coloured flowers, notably L. rotundifolium, macrocarpum and scoparium [some forms]. The fruits are woody capsules, sometimes with the flower capsules persisting on the fruit. Most of the species grown in Britain have fruits which remain on the plant for several years. L. obovatum is an exception, and has fruits which both mature quickly and open to shed their seed. In sub tropical areas the dark red flowered L. spectabile can be grown.

Species in the APS seedlist and given in the 1994-5 Plant Finder

L. arachnoides N.E. NSW and the Qld Granite Belt. A small shrub, usually to about 1m [3.3ft], rarely 2m [6.6ft]. Fairly hardy. Introduced to Britain in 1795.

L. argenteum From the Barrington Tops area of northern NSW, along streams and in swamps. First described in 1989 and now available in Britain. A shrub 1-7m [3.3-23ft] with silvery grey new growth. Flowers on the previous year's growth, blooms up to 1.2 cm [0.4"] across. Hardiness unknown but should be similar to that of L. arachnoides.

L. blakelyi From the Clarence area of NSW on shallow sandy soil. A small shrub, 0.6-1m [24-39"] which has pink or white flowers in spring on the previous year's growth. Deciduous fruits. Has survived two winters in NW England.

L. erubescens Inland W.A. in heath and woodland, sandy and gravelly soils. A shrub 1.5-3m [10ft] with white or pink flowers in winter and spring. Deciduous fruits.

L. grandiflorum From Tasmania on granite rocks at about 300m [990ft] on the warm E. Coast. A shrub to 5m [16ft] with large white blooms to 3cm [1.2"] across in early summer. Likes a warm, sunny site. Often confused with L. grandifolium and L. nitidum. The recent Lancaster introduction sold by Cox' is the true plant. The simplest way to check a bought plant is by the leaf tips. They are blunt, whereas the leaves of L. grandifolium are sharply pointed. The fruit has deciduous sepals, while those of L. grandifolium are persistent. There is a rare pink flowered form.

L. grandifolium NSW and Victoria on Tablelands and Highlands, along watercourses. A handsome shrub 1-7m [3.3-23ft] high with silky hairy young growth and 2cm [0.8"] white flowers in early summer. Purplish young growth.

L. juniperinum From southern Qld and northern NSW. A bushy shrub or small tree to 5m [16ft] which stands salt spray and which will grow

on sand dunes. Prickly leaves and fragrant white flowers in spring. Forms from the southern part of the distribution are hardy in the milder parts of Britain.

L. laevigatum From coastal parts of NSW, Vic, SA, and northern Tas. A shrub or tree 3-8m [10-26ft] which withstands salt spray and stabilizes dunes. Has white flowers in late winter and early spring. Tolerates alkaline soil. Grows well in Ireland. Most Leptospermums have 3, 4 or 5 compartments in their fruits, a few have more and one has only 2. Fruits of L. laevigatum have 6 to 11 locules [compartments] in their fruits, and any Leptospermum species found growing outdoors in Britain, which has more that 7 locules can be taken to be L. laevigatum.

L. lanigerum From NSW, Vic, Tas, SA. A shrub or small tree to 8m [26ft]. Very variable and although the leaves are usually hairy and grey-green, green forms do exist. A plant sold in Britain as L. hypericifolia was confirmed as green L. lanigerum. Some forms have a pendulous habit, and may be less than 1m [3.3ft] high after 10 years. This is one of the hardiest species, and is certainly hardier than L. scoparium. Selections are sold under promotional names. 'Silver Sheen' is one with very silvery young leaves. It has been sold as L. cunninghamii, though that name is probably a synonym of L. myrtifolium. It is still being sold as L. "Cunninghamii". "Wellington" is a seedling from Mount Wellington in Tasmania. L. lanigerum "Citratum" originated in New Zealand and is said to be scentless in both flower and leaf.

L. liversidgei From southern Qld to northern NSW in coastal swampy heath. It is an erect shrub 1-2m [3.3-6.6ft] high with leaves which have a strong lemon scent. White or rarely pink flowers are borne in summer. In British cultivation it has been confused with L. petersonii. Distinction is preferably by the fruit, which will rarely be seen on garden centre plants. Liversidgei has leaves 5-7mm [0.2-0.3"] long and only 1-2mm [upto 0.1"] wide; those of petersonii are larger, 2-4cm [0.8-1.5"] long and 4-5mm [0.15-0.2"] wide.

L. macrocarpum NSW Rocky sandy sites in the Blue Mountains, on north west slopes at the base of cliffs, in full sun or part shade. A low shrub which can reach 2m [6.6ft] but which is usually up to 1m [3.3ft] high by 2m [6.6ft] across. Notable for its large fruits, which can be 2cm [0.8"] across. Flowers may be greenish white to dark red in colour, and appear in late summer and autumn. In cultivation the red forms are preferred. Usually grown as a conservatory plant in Britain, this species deserves wider trial outdoors. It will need excellent drainage and ample summer water.

L. minutifolium From the northern tablelands of NSW and the Granite Belt of Qld, in swamps and on stream banks. A shrub to 2.5m [8ft] with densely packed dark green leaves to 3-4mm [0.1-0.15"] long. White flowers in spring are a bonus to this species which, in Britain, is grown as an indoor plant. Though grown in Mediterranean areas, it needs summer watering.

L. minutifolium x scoparium These are presumed hybrids which were grown from seed collected after the putative parents had been grown side by side.

L. morrisonii NSW in elevated parts of the Central Tablelands. A rounded shrub usually about 1-1.5m [3.3-5ft] high, which can reach 4m [13ft] in favoured sites. The foliage is very aromatic and large white flowers appear in summer. Described first in 1989, this species should be reasonably hardy in well drained soil in southern and western Britain. It could be tried elsewhere too.

L. myrtifolium From the Southern Tablelands of NSW and adjacent parts of Vic. A 1-3m [3.3-10ft] high shrub from poorly drained swamp margins. White flowers in late summer. Useful for extending for flowering shrub season into a time when there is little other than hydrangeas. Hardy in southern and western Britain. Worth trying elsewhere.

L. nitidum Tasmania in cold wet heaths, often on granite, but also on dolerite derived soils. A 2-4m [6.6-13ft] shrub with elliptical shiny leaves and white flowers in late summer. One of the hardiest Leptospermums and worthy of wider trial. It has been sold as L. grandiflorum, but is easily distinguished by its leaves.

L. obovatum From the Central and southern tablelands of NSW. A 2-8m [6.6-26ft] high shrub with long arching branches and profuse white flowers in early summer. Stands dry soil. The clone in general cultivation suffers slight injury in temperatures below -12°C [10°F].

L. petersonii From northern NSW and southern Qld, on and near coasts. A shrub of 3-7m [10-23ft] with white flowers in summer. Sometimes confused with L. liversidgei which also has scented flowers. Not hardy in Britain.

L. polyanthum NSW on escarpments and stream banks at medium elevations 300-400m [990-1300ft]. A shrub or small tree with slender pendulous stems covered with small white flowers in late spring and early summer. This species, described first in 1989 is unlikely to be hardy in Britain but should be tried in warmer parts. It will make an excellent indoor plant.

L. polygalifolium From N. Qld to just north of Sydney. This is a very variable species with 6 subspecies and a named selection. I have not seen the plant sold in Britain, but the Plant Finder refers L. flavescens to L. polygalifolium. I conclude that what is being offered is probably subspecies polygalifolium. It is unlikely to be hardy.

L. riparium From Tasmania, along the banks of a few rivers in the south. A tall narrow shrub or small tree, to 5m [16ft] or more by 1.3m [4.2ft]. Dark green leaves, and white flowers in summer. Will grow in shade, but only flowers well in sun. Stands wet and waterlogged soil. Uninjured by frosts of -12°C [10°F]. Two provenances have been grown in NW England.

L. rotundifolium From the Central and Southern tablelands of NSW. A very variable shrub or small tree, 0.5-3m [1.6-10ft] with white, lavender or pink flowers in early summer. This is a very ornamental species, hardy in southern and western Britain. The APS has seed from the selection 'Lavender Queen'.

L. rupestre Tasmania, above 1000m [3300ft]. A shrub 0.3-2m [1-6.6ft] high. Seedlings should be rogued for a prostrate habit. This, the hardiest Leptospermum was uninjured by -17°C [1°F] at Kew. In my garden it has suffered tip damage at -14°C [7°F]. White flowers are borne in June. Established plants will provide weed-proof ground cover, and can cover large areas. My own specimen was 4m [13ft] across before it was restrained. It is long lived - at least 70 years.

L. scoparium From Tasmania and New Zealand. A tree to 6m [20ft] high. Grown most commonly in one of the large number of selections from the pink/red flowered New Zealand forms. None are reliably hardy, but all make good specimens for the cool greenhouse. The Tasmanian L. scoparium var. eximium has been absorbed into the species. It differs only in the leaf shape, and is considered to be more difficult in cultivation.

SMOKE, NOT FIRE, IS THE ANSWER

In the newspaper 'The West Australian' in February this year, there was an article on a new method to germinate many of WA's rare plants. Kings Park scientists rigged up apparatus to prove that smoke, and not fire, caused the germination of many species of Australian plants. They were following up work by a young South African research technician who first suugested that smoke rather than heat might trigger germination. So far, the smoke technique has been used to germinate over 100 species of plants which had previously been difficult to propagate.

HOW YOU CAN CARRY OUT THE SMOKE TREATMENT

If carried out enthusiastically it could upset your neighbours. Before breakfast or after tea are probably the best times to do it!

1. Add green leaves, dead leaves and damp twigs to a fire to make lots of smoke.
2. Put some absorbent paper on a toasting fork.
3. Hold the paper in the smoke until it is honey coloured.
4. Wet the paper after placing in a Petri dish, put the seeds on it, cover the dish, place in a subdued light or in the dark for at least a month. If in the dark give 10 minutes light a day.

SNIPPET

Jeff Irons tells me that his Leucopogon colensoi had some berries on it this year. Since he neglected to cover the plant they were taken [by birds?] before he could harvest the seeds. They might have given an interesting bi-generic hybrid.

Ed : L. colensoi is self-incompatible. To get fruits you must have two genetically different plants [ie seedlings not plants from cuttings]. Jeff has only one plant. He does grow other Epacrids and Ericaceae, so presumes that one of them had fertilized the Leucopogon.

MEMBERS' REPORTS

Firstly, we have a report from **Thomas Naylor** of Leeds.

"There were 86 air frosts over a period of 27 weeks commencing mid-October; 14 in November, 13 in December, 13 in January, and 22 in February. There were also 13 days on which snow fell; the earliest was the 21st November and the heaviest fall was on the 23rd February with additional snow on the 25th which then turned to rain. A minimum of approximately -7°C [20°F] occurred three times, once in November and twice in February and there were eight other nights with minima of -4°C [25°F] or lower. On the 24th of November the temperature did not rise above -2°C [28°F] and everything, even the tallest trees, were covered in hoarfrost all day long. For three consecutive days in February the daily maximum was very close to 0°C [32°F].

Strong winds and gales did a lot of damage. Adult foliage on Eucalyptus globulus was browned at the edges and juvenile leaves were very severely burned. There were only twelve E. globulus flowers in July 1994 because most of the flowerbud-bearing branchlets had been torn off over winter. I lost the upper part of E. viminalis in November, which was largely my fault. I failed to loosen a terylene rope which was securing the tree but also constricting the stem. New shoots have appeared near the base but it looked more attractive single-stemmed. A large E. gunnii was relatively undamaged and of younger eucalypts only one E. pulverulenta was killed; another plant of the same age and species survived. Those which did survive were : -coccifera, cordata, dalrympleana, glaucescens, moorei nana, paliformis [some browning of leaves], pauciflora ssp, niphophila, perriniana and rubida.

Among other plants which survived unprotected was Correa reflexa [pink flowered], which produced flowers in May and started to flower again in October. Acacia mucronata, as expected, was undamaged. I am reliably informed that the cream-coloured flowers of this plant are quite unspectacular, though my specimen is some way off the flowering stage.

Cassinia fulvida, Hakea saligna, Telopea truncata and Melaleuca squarrosa also survived. The last named plant was so severely damaged that it is now only about two-thirds the size that it was last Autumn. All three Sollya heterophylla were dead by Spring and Kunzea parvifolia also died in late Winter.

I covered some of my outdoor plants with polypropylene fleece, partly in the hope that I might get flowers in 1994 - Acacia pravissima, A. verticillata, Callistemon citrinus, linearis and violaceus plus Leptospermum scoparium. A. verticillata and C. violaceus died; the latter a surprise since it had survived the previous winter unprotected. Only Leptospermum flowered. C. citrinus is now over eight years old and has never flowered.

All of my Banksias out of doors, in pots containing a compost of peat and grit plus a little hoof and horn, died over winter apart from B. oblongifolia :- B. ericifolia, integrifolia, marginata and paludosa. I planted out ten oblongifolia in Spring 1993 and eight are still alive, though the tallest is only 17cm [7"] high. They have survived

the last two winters outdoors unprotected [92/93 in pots, 93/94 in the ground].

My Ozothamnus rosmarinifolius seems to suffer rather than benefit from being planted against a south-facing wall as all but one of the upright stems were broken down by snow sliding off the roof. This 2.5m [8ft] high shrub has brick-red buds which open to reveal white flowers.

From the 1994 seedlist, the Acacia ssed germinated well after heat treatment. A. oxycedrus has contiued to grow well but seedlings of ulicifolia var brownei reached a height of 20-30mm [approx 1"], remained static for about a month, and then began to die. Ten weeks after germination all seedlings of ulicifolia var brownei were dead.

Eucalyptus seed was placed in the refrigerator on receipt and taken out again after ten days. Two weeks later the germination rates were : radiata 12, vernicosa 1. Vernicosa was returned to the refrigerator for a further six weeks. Since taking the seed out, only one more has germinated. Both the vernicosa seedlings seem to lack vigour.

Hot water treatment provided plenty of seedlings of Aotus ericoides and all of the non-eucalypt Myrtaceae, Melaleuca and Callistemon, germinated rapidly and appear to be doing well.

Fourteen weeks after sowing I had seven Isopogon seedlings but none of the Petrophile has so far germinated, eighteen weeks after sowing."

*****

Jennifer McGrady, who lives in North East England, brings us the second report.

"I had seed of Acacia baileyana purpurea from the APS seed list this year, and am sending my results, though I'm not at all proud of them :-

seeds sown	48
seedlings raised	18
strongly purple foliage	6.

All the seeds were soaked until they swelled so I should have persuaded more to germinate. I'm not sure where I went wrong, but I am very pleased with all the seedlings. I grew two or three some years ago from RHS seed, but these were only tinged with purple - and I don't remember the ones I saw in Australia last year being particularly purple either.

I was at Threave Gardens, near Castle Douglas, in September, and was very interested to see Eucalyptus gunnii, perriniana and urnigera glauca fruiting. I picked up some pods of perriniana, and they appear to have seed in - so perhaps I shall have Scottish strain eucalypts next year!"

*****

David Bainbridge, of Cleveland, has written to say that in 1993 he had great success with Ptilotus exaltotus seed from the APS. The seedlings grew very rapidly and flowered all summer.

JEFF IRONS' PLANT REPORT

Winter damage 1993-94.

Athrotaxis cupressoides	severe branch damage
Athrotaxis laxifolia	some branch damage
Banksia marginata	tips damaged
Carmichaelia grandiflora	killed
Carmichaelia virgata	small branches damaged
Dodonea viscosa purpurea	killed
Lomatia polymorpha	killed
Olearia argophylla	tip damage

Losses summer 1994

Persoonia gunnii pot grown

This loss occurred just after the end of the July warm spell. After our last warm summer I lost an 8 year old pot grown Agastachys odorata, and believe that what happens is that fluctuating moisture levels in the compost damage the plant roots, and allow bacterial attack. All my cool climate Proteaceae in the garden [including P. gunnii came through the warm dry weather without harm. The only one to be watered was Lomatia myricoides. I have found that it does not flower in dry summers, watering is essential if I want to see the flowers in August.

SNIPPET

The plant available from nurseries as Leptospermum scoparium "Nicholl-sii" was re-classified as L. scoparium var nichollii in the last revision of Leptospermum. We have had correspondence with Chris Brickell over this, and he favours "Nichollsii". It probably does not matter anyway, for it seems likely that the plant we have is "Nicholl-sii Improved". The difference is that the flowers of "Nichollsii" are a sombre Chrysanthemum Crimson, while those of "Nichollsii Improved" are a brilliant glowing crimson.

ROOTED CUTTINGS FOR SALE

from Jeff Irons

50% of proceeds goes to APS funds. Prices include postage.

Grevillea lanigera, prostrate form. £3 each. 2.75" square pots. Cuttings taken from seedlings of this form. Almost certainly not hardy in Britain.

Grevillea lanigera. £3 each. As above, but this seedling was not prostrate.

Prostanthera walteri. £3 each. 3.5" square pots. Sought after species with greyish flowers. Hardy in mild parts.

WRITE TO JEFF IRONS [address inside back cover] AFTER NOVEMBER 20TH.

MORE ROOTED CUTTINGS FOR SALE

from Dennis Rowlinson

50% of proceeds goes to the APS fund. All prices include postage.

Dennis has a few excess plants of the following :
Billardiera longiflora [quite shrubby] ready Spring 95 £2.50
Hebe glaucophylla 'Variegata' [from flowered clone] £2.00
Hebe 'Hagley Park' [pink flowers] ready Spring 95 £2.50
Kunzea ambigua [not quite hardy in North] £3.00
Also a few seedlings of **Coprosma atropurpurea** [SHS 94] £2.50

Contact : Dennis Rowlinson, 4 Highfield Road, Hazel Grove, Stockport, SK7 6NS. Tel. 061 483 4877

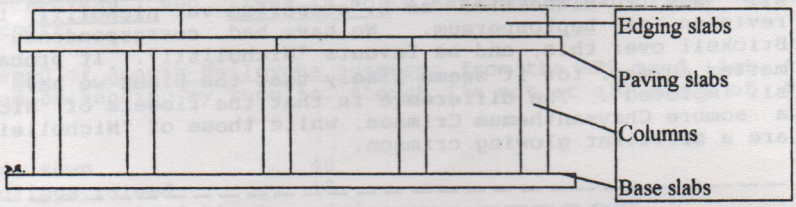
CONSTRUCTING AN ALPINE TABLE

by Dennis Rowlinson

"I mentioned in Issue 12 that I use an Alpine Table to plunge and cover my alpines, plus some of the hardier Australasian plants over the winter. I find this table very useful and avoids most of the Damping Off previously experienced.

The first drawing shows the basic design and shows one of the possible layouts of the table. I used 3ft x 2ft paving slabs, 3ft x 6" round topped edging slabs and 44mm x 22mm x 10mm medium density blocks to give a 3ft x 8ft table, 28" high.

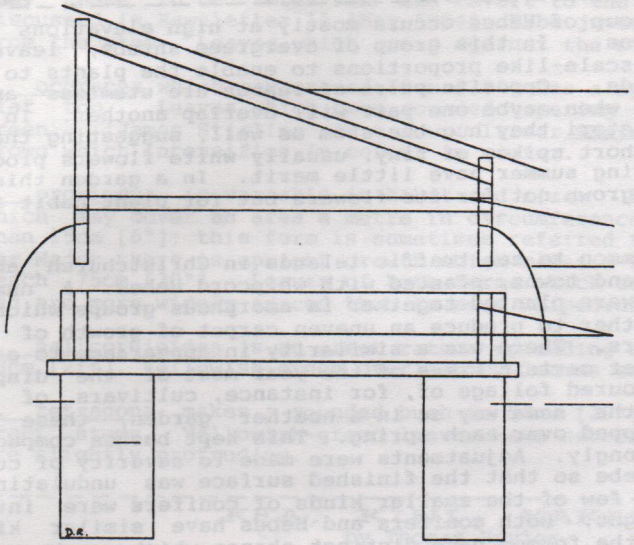
Drawing One View from front



First I laid paving on the ground area to give a level base, then built the columns with the blocks to the height required, so that the junctions of the paving slabs on top of them coincide with their centreline. These were then cemented into position. After laying the paving slabs on the columns I fitted the edging slabs, at least 0.5" from the edge, and set them in a sand and cement mix to avoid movement. Any gaps between the paving slabs were left to provide drainage. To hold the legs of the covers in position I fitted 8 small lengths of plastic tubing vertically, with the cement mix, to the table.

In the second drawing you can see the design of the 2 covers I used to cover the area of my table. On a table this size, I found two covers easier to handle than one. They were made of 1.75" x 0.75" wood, sloping 20" to 12" and standing 4" above the edging slabs at the front. No sides, backs or fronts were fitted to allow for a good circulation of air.

Drawing Two View from side



The frames were screwed together for ease and clear corrugated plastic roofing material fitted to the tops with fasteners. Wires were then fastened at the bottom of the legs, with loops formed at the end to allow wires to be slipped over hardened steel nails hammered into the columns. This stops the frames flying away in the winter storms. All the wood was soaked in preservative after cutting and then coated again with preservative after being screwed together.

Finally the table was filled with a sand and grit mix to a depth of 75mm [3"] and of course with a few plants.

I have used this table for three years and I've had time to appreciate it's value and ease of use and think, if I had more room, it would be better to make it longer with more covers, but definitely not wider, as you need to stretch to reach the back when putting on the covers. I have found the storage space under it very useful as a dry area for composts and pots."

Ed : many paving slabs and timber planks are still measured in inches; newer decorative blocks are in mm; hence the mix of measurements.

NEW SPECIES OF CALLISTEMON

The newly discovered Callistemon forresterae may turn out to be hardy in Britain. Thought by the collector to be a purple flowered form of C. subulatus, it has purple flowers, pink young growth, ascending branches and a single trunk. The habitat is S.E. Victoria, in places where the soil can be wet in winter.

WHIPCORD HEBES

by Brian Halliwell

The Whipcord group of Hebes occurs mostly at high elevations on New Zealand mountains. In this group of evergreen shrubs, leaves have been reduced to scale-like proportions to enable the plants to survive dessicating winds. Opposite pairs of leaves are stemless and grow close together when maybe one pair will overlap another. In a few species eg H. hectori they hug the stem as well, suggesting that stems are leafless. Short spikes of tiny, usually white flowers produced in leaf axils during summer have little merit. In a garden this is a group of plants grown not for its flowers but for plant habit and leaf colour.

It was once common to see traffic islands in Christchurch and some other South Island towns, planted with whipcord Hebes. A number of different kinds were planted together in amorphous groups which would grow into each other to produce an uneven carpet of growth of several shades and colours. There was a similarity in appearance to a heather garden where, at certain times of the year most of the display is provided by coloured foliage of, for instance, cultivars of Calluna vulgaris. In the same way as in a heather garden, these traffic islands were clipped over each spring. This kept bushes compact, tidy and growing strongly. Adjustments were made to severity of cut with each kind of Hebe so that the finished surface was undulating. In larger islands a few of the smaller kinds of conifers were introduced to provide height. Both conifers and Hebes have similar kinds of foliage whilst the former have distinct shapes which can be retained without pruning.

This kind of planting can be extended to English gardens. Beds can be made of any size or shape. Dig over the soil and incorporate as much organic matter as is available; tread to firm and rake to produce an even surface. Plant at 30-45cm [12-18"] apart in groups which may be as small as three. For the first year or two hand weeding may be necessary but once individual bushes have grown into each other, an impenetrable ground cover will have been produced. Prune annually in April. Use garden shears and remove most of the growth produced during the previous growing season.

H. armstrongii, many bushes grown under this name are H. ochracea [see Newsletter No.9, Nov 1992, p20]. There are thin erect shoots to 70cm [approx 27"] which are slightly spreading making a bush with a rounded habit. Yellowish-green leaves which have pointed tips are slightly protruding; leaf colour often deepens in winter.

H. cupressoides is the strongest growing of the whipcord group, which can with great age reach 2m [6.6ft]. There are upright thin stems which make a rounded somewhat spreading open bush with green, sometimes greyish leaves. The bluish blooms make this the best whipcord for flowers. On hot summer days the foliage is aromatic. The strongest growing of the whipcords, perhaps because it comes from lower elevations; it can be used to give height to centres of beds. 'Boughton Dome' is a smaller compact form of this species being tighter, more compact, dome-shaped with dark green growth. It is slower growing but may reach 60cm [2ft].

H. hectori has an upright habit to 45cm [18"] with yellowish-brown round-tipped leaves which overlap each other and hug the stem.

H. lycopodioides makes a bush to 45cm [18"] with 4 angled stems having pointed slightly protruding light green leaves. The cultivar 'Peter Pan' is simply a juvenile form. Once plants develop mature leaves they cease to be 'Peter Pan' and revert to the plain species. As discussed in Newsletter 12 [May 1994], Hebe juvenile leaves face away from the stem. Leaves which press against the stem are adult ones.

H. ochracea which may exceed 50cm [20"] has a spreading habit with a flat top. Leaves which have rounded tapering points are brownish green. 'James Stirling' is a low cultivar where foliage is a golden brown which intensifies in colour in winter.

H. propinqua is variable in habit and size. Low spreading bushes which may cover an area a metre in circumference often rise no more than 15cm [6"]; this form is sometimes referred to as Minor. In cultivar Major there is upright growth which makes a rounded bush which can reach 75cm [30"]. Leaves of both forms which can have rounded tips and are more widely spaced than in most whipcords are a light green.

H. salicornioides is an erect rather spreading shrub which can reach 60cm [2ft]. Yellowish-green overlapping leaves are almost flat topped.

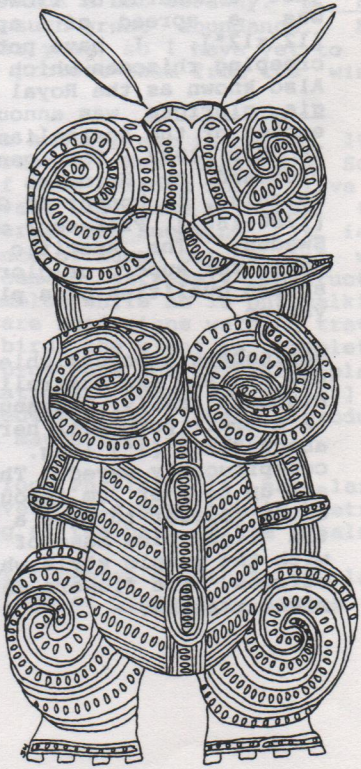
H. tetragona makes a rounded bush to 50cm [20"] with rather stout erect stems. Yellowish-green leaves have narrow pointed tips which are slightly protruding.

KEA, KIWI, KAKAPO

by Thomas Naylor

The Maori tongue's beyond my range.
It seems so foreign, rather strange!
My stock of words was twelve or less
Until I joined the A.P.S.
And one of those, I used to think,
Applied just to an orange drink.
Three of the words that I did know
Were kaka, kea, kakapo.
I thought that these three sounded fine
And yes, of course, they're psittacine.
It's also true I couldn't fail
To name two ratites and a rail.
That's takahe and kiwi, moa.
Also I knew Aotearoa.
But as for words in the plant line
Only manuka, kauri pine.
So many things I'd yet to learn
Like ponga seems to mean tree-fern.
Now there's kowhai, pohutakawa,
And also kawakawa, tawa,
Yes. All in all there's quite a lot.
I could go on. Er...Maybe not.
I've still to find ongaonga seeds.
Perhaps I'm safer with my weeds.

Thanks Thomas, for this wonderful poem. Similar contributions are welcome from other members.



MY GARDEN

by Sue Hyams

It is 20 months since we moved house and started work on our new garden. Our previous garden resembled a rainforest/jungle as the boundary was a mass planting of trees and hedging shrubs to conceal the neighbours and provide ourselves with some privacy. Living where we do now, we do not have to grow such screens. In fact it would be sacrilege to do so, cutting out the very view which persuaded us to purchase the property. The garden design is completely different.

One of the first projects I made was a scree bed. The original owners had paved an area and left a bed about 1.5m x 0.9m [5ft x 3ft]. The house is made from stone blocks, and for some reason, excess blocks were still stacked by the oil tank. I used some of these to edge the bed, standing them on the paving and raising the bed. Since they are heavy and not likely to be easily accidently moved, they didn't need cementing together. The raised bed, about 25cm [10"] above soil level was then partly filled with garden soil, which is very sandy, to which grit was added. On top of this are 75cm [3"] of pea gravel. I added a few large pieces of sandstone, in keeping with the local rock, to add interest. And then the planting began. Not all the plants are Australasian; its a collection of some of my favourites plants, but for this article I'll concentrate on those relevant to the APS.

Wahlenbergia gloriosa, bought as a small plant in a 76mm [3"] pot 12 months ago, has settled in really well. Last year there was just a handful of flowers. This year there was a spread of approximately 30x30cm [12"x12"]. I have potted up many of the creeping rhizomes which it readily produces. Also known as the Royal Bluebell, Wahlenbergia gloriosa was announced as the floral emblem of the Australian Capital Territory on 26 May 1982. The genus Wahlenbergia was proposed by Heinrich Schrader, a German botanist, in honour of Georg Göran Wahlenberg [1780-1851], Professor of Botany at Uppsala, Sweden. The specific epithet gloriosa is Latin for superb or glorious, a reference to superb qualities of a plant worthy of cultivation.



Wahlenbergia occurs chiefly in South America, New Zealand and Australia. It belongs to the bluebell family, Campanulaceae. W. gloriosa is a small perennial herb with oblong leaves about 2.5cm [1"] long. The leaf margins are conspicuously waved. The violet blue flowers are up to 2 or 3cm [about 1"] in diameter and often appear to have a paler centre due to the light blue base of the petals combined with the purple style which ends in two white stigmas. The flowers may be erect or nodding and are carried on long slender stems.

Propagation is possible from seeds, cuttings or root divisions. Well drained soils are necessary. Seed has been supplied to the APS seedlist this summer.

Celmisia ramulosa, one of the New Zealand mountain daisies, was planted in summer 1993 as a very small plant bought at a horticultural show. In appearance, it can be described as trailing to erect, with stiff branches covered with overlapping leaves approximately 1cm [0.4"] long. From the main stem, six branches have formed, each of which has also produced six to eight branches. The young leaves and stems are covered in tiny hairs giving a downy appearance. I had no trouble overwintering it, despite it being a wet winter. I didn't bother covering it with a piece of glass to stop the winter rains. In April 1994, I was rewarded with 25 daisy flowers, 2-2.5cm [approx 1"] in diameter. It is suggested that this plant neeeds a cool site to grow well. I'm not sure that I agree. My scree receives sun from early morning through to late evening particularly in the summer when the sun is at its hottest. The roots are probably cool well down in the gravelly compost but the head is in the sun. Since I have a collection of summer flowering containers nearby, it is always being subjected to a light shower in summer.

Raoulia hookeri and R. australis are two New Zealand scabweeds which hug the ground forming thin mats of silvery foliage. R. australis has tiny silvery hairy leaves which grow at a height of about 7mm [0.25"]. In July, pale yellow daisylike flowers were produced in abundance. In R. hookeri the leaves are larger and the height of the plant is slightly taller at 1.5cm [0.6"]. In my opinion, this is a tidier plant than australis which can at times look a bit scrawny. R. hookeri also flowered in July, but not in such great abundance. Both Raoulias were only planted out in May this year, so I have yet to see how they will overwinter. I may need to protect them from the winter wet with a piece of glass.

Parahebe decora 'Kea', bought again as a small plant in April 1994. Named after the mischievous alpine parrot of New Zealand's South Island mountains. Unlike the habitat of most parrots which live in the sunny tropics, the kea's home is a vast wasteland of scrub, tussock and bare shingle screes between forest and snowline. It is a real extrovert particularly in the presence of human beings, and will follow hikers for miles on end. They can be extremely destructive reducing a mountain camper's tent to shambles while he is out walking. In some parts of the South Island there are road signs warning travellers of the kea's presence. Unlike the bird, the plant is completely controllable and good natured. It is a prostrate and spreading plant, with rounded shiny leaves, with two crenations, about 4mm [0.16"] in length x 3mm [0.12"] in width. The speedwell-like flowers, produced on slender racemes, are white/mauve with mauve veining marks.

Another Parahebe is P. catarractae 'Porlock Purple'. It has larger leaves than 'Kea' and the flower is a lovely pale purple with beetroot purple veining and a beetroot purple ring at the base of the petals.

These are just some of the plants. I will report on others in later issues, including how this year's seedlings of Craspedia incana and lanata have fared the winter.

GREVILLEAS - MAKING SENSE OF THE CATALOGUES

by Jeff Irons

The Grevillea names given in the 1994-5 Plant Finder are more confusing than those of most other plants. These notes may help members to understand them.

Grevillea juniperina CHan, the nursery offering this, said that it is the form sold elsewhere as "Sulphurea". This, an upright yellow flowered clone, is the common one in Britain. In Australia the common yellow flowered clone is a prostrate one, and the upright form is red flowered.

Grevillea "Rubra". This is the common red flowered upright form in Australia.

Grevillea juniperina forma "Sulphurea". In cold parts of Britain this, like all other forms of this species needs wall protection. It flowers from August to June, with a peak in May, and a lesser peak in September.

Grevillea prostrata 'Aurea'. This is confusing. Grevillea prostrata is a rare species which has scented cream and pink flowers. It seems most likely that the name is effectively tautological, being a combination of Prostrate and Aurea. These are trade synonyms in Australia for the prostrate yellow clone.

Grevillea rosmarinifolia 'Jenkinsii'. The name should be "Jenkensii". It is probably a hybrid between G. rosmarinifolia and G. lanigera. It makes a large shrub, which has the flowers massed at the branch ends.

Grevillea thyrsoides. The plant sold under this name is obviously not what it is claimed to be. I await verification of the name, which will come after a flowering specimen has been sent to Australia.

Grevillea tolminensis. This name and its variant tolmiensis are unknown in Australia. A small sample was sent for identification and was thought to be possibly a G. preissii hybrid. Confirmation awaits a larger specimen.

THANK YOU

Many thanks to all of those members who sent in contributions for this issue; they really are appreciated. Also many thanks for donations to our seedbank, especially to Dennis Rowlinson and Nick Andrews. If you have any seed, however small the amount, even if you think it is from a more common species, please forward it to Jeff Irons.

CAN YOU HELP US?

The APS is interested to know what kinds of articles you would like to find in your newsletters. If there is any information which you require, write and let us know. We can put together an article for a future issue. Do you want articles on gardening techiques, more plant profiles, articles about botanists, garden design, etc?

Drop a note in with your subscription fee. We really want to know.

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