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NEWSLETTER OF THE NEW ZEALAND PLANT CONSERVATION NETWORK

Please send news items or events to events@nzpcn.org.nz
Postal address: P.O. Box 16-102, Wellington, New Zealand

E-NEWSLETTER: NO 35. OCTOBER 2006 Deadline for next issue: Tuesday 14 November 2006

Message from the President

I look forward very much to seeing as many of you as possible in Auckland at the combined Cheeseman Symposium and the New Zealand Plant Conservation Network Conference. Why wouldn't you want to be there? I have just been looking at the detailed Programme that has been kindly supplied by the Conference Committee. The contents of the Symposium is varied and diverse with something for everyone. Whatever your interest in New Zealand native plants there will be something there for you. Over and above the formal proceedings (including the Network AGM) there is the very valuable opportunity for networking.

Conferences are a time where serendipity abounds. Conferences are there to renew old links and are also opportunities to forge new links. Make sure that you have registered. Registrations close on 31 October.

Talking about deadlines (there seem to be too many these days)—note the nominations for Network Awards. The nominations close on the 6th November. This is an opportunity to put forward nominations and to recognise the valuable work done by so many people. As well as recognising individual achievements, the Awards is a way of inspiring others to contribute equally well to plant conservation. Think about it—what individual, what school, what local authority, what plant nursery and what community group has made a big difference. The Award's Committee needs your nominations. The process is very easy and forms are available on the Network Web site.

Also up for nomination are Important Plant Areas. This is an integral part of the Global Strategy for Plant Conservation and we in New Zealand need to be very proactive with regard to the identification of Important Plant Areas. Once again—look at the Network web site and have you say. Together we can make a lot or progress.

This month's Newsletter has a very interesting article on an endemic New Zealand genus, *Leucogenes*. Written by Arnold and Ruth Dench, this article pays tribute to Leonard Cockayne's comments and goes on to explore in some detail the four species. There are also some very useful tips about cultivation. I wonder if any of these *Leucogenes* species will ever become one of the top ten most favourite New Zealand native plants. Meanwhile, I am pleased to say that this is a very welcome contribution to the Newsletter and I look forward to seeing many more of this kind.

By the time you read this, I shall be in Europe teaching into the Master of International Nature Conservation (a joint programme between Lincoln University and Goettingen University, Germany). I shall also be in England to renew my links with a nature reserve that I established on an ancient woodland site and revisit some of my favourite (English) lowland plant conservation sites—the heaths of Dorset and the contrasting chalk downs of Sussex. Back just in time to see you all in Auckland!

Ian Spellerberg, Lincoln University

Plant of the Month

Brachyglottis kirkii var. *kirkii*. Photo: Peter de Lange.

Plant of the month for October is Kohurangi or Kirk's daisy (*Brachyglottis kirkii* var. *kirkii*). This epiphytic shrub grows to 1.5 m tall and is endemic to the North Island where it is locally scattered throughout. It is found as an epiphyte of lowland to lower montane forest, but is sometimes terrestrial. It flowers from August to October. It is currently listed as Serious Decline and is threatened as a result of its intolerance of browse and the fact that it is targeted by possums, goats and deer. The Network fact sheet may be found at the following link: http://www.nzpcn.org.nz/nz_threatenedplants/detail.asp?PlantID=123

Network conference – Registrations close 31 October!!

This years Network conference is fast approaching so please make sure you are registered as soon as possible as registrations close 31 October.

This conference is to be held jointly with the New Zealand Botanical Society, the Auckland Botanical Society, the Auckland Institute and Museum and Landcare Research. Please register now if you intend to come—see website for the registration form (under Conservation info>Events).

This huge gathering of over 150 New Zealand and overseas botanists is happening in Auckland from 20 to 22 November 2006. A joint celebration of the centennial of New Zealand's first resident botanist to write a flora—Thomas Cheeseman and his 1906 indigenous New Zealand vascular plant flora will be happening. Come and participate in a special event unlikely to happen again for, well, another 100 years!

The Cheeseman Conference is now in the final stages of preparation. The conference, celebrating the 1906 publication of Thomas Cheeseman's full Indigenous Vascular Flora treatment will see a gathering of over 150 New Zealand, Australian and other international botanists. There will be Key Note addresses on the work and life of Thomas Cheeseman (Mr Ewen Cameron), New Zealand floras and bioinformatics (Dr Aaron Wilton), New Zealand flora systematics (Dr Rob Smissen), Pollination and reproductive biology (Dr Linda Newstrom), Science, conservation and conservation management (invited addresses by Dr Judy West, head of CSIRO, and Dr Andrew Young), plant morphology, cytology and function (Dr Brian Murray) and plant phylogeny (Dr Leon Perrie).
A further 29 oral papers and 22 poster papers will be offered on these themes—some samplers include the first comprehensive account of New Zealand orchid cytology, an account of the work of William Lauder Lindsay, a review of the Grammitidaceae, and have we truly lost our bird-flower mutualisims?

The NZPCN will be running various workshops and tutorials, and plant displays and artwork will be featured at the conference centre. As part of the ceremonies the NZPCN awards will be presented, along with the New Zealand Botanical Society Allan Mere, and the long awaited final book of Audrey Eagle will be launched. A very special announcement about future threatened plant listings will be made jointly by the New Zealand Department of Conservation and New Zealand Plant Conservation Network.

After conference field trips to see the unusual flora of the young volcanic Rangitoto Island and to investigate threatened plant management will be undertaken. Don't miss all the fun and the knowledge sharing. Follow the links on the NZPCN website (under Conservation info>Events) and register now for this once in a life time conference.

Notice of New Zealand Plant Conservation Network AGM 2006

The Annual General meeting of the New Zealand Plant Conservation Network will be held at Auckland University (School of Engineering and Conference Centre, off Symonds Street), Auckland from 1.05 p.m. to 2 p.m. on Monday, 20 November 2006. Members can bring issues before a General Meeting by written advice to the Secretary.

Network awards for 2006

The deadline for Network award nominations is 6 November 2006 so please send in your nominations as soon as possible for the plant conservation awards 2006. The award categories are:

- Individual
- School
- Local authority
- Plant nursery
- Community Group

The nomination form is available from the Conservation info/Awards area of the website and at the end of this newsletter. The awards will be made at the Network conference, the Cheeseman Symposium, in Auckland on Tuesday 21 November.

Help us find New Zealand favourite plants – have you voted yet?

Votes are mounting in the 2006 Vote for your favourite Plant competition. Over 80 species have now been voted for. Please log on and use all of your 5 votes and encourage your friends and family and colleagues to vote. The results will be announced on Monday 20 November at the Conference dinner at the Cheeseman Symposium in Auckland. Go to www.nzpcn.org.nz for more information.

Leucogenes – an endemic New Zealand genus

By Arnold and Ruth Dench

Of all those magnificent plans that grace our mountain regions (approx. 950 spp.), the New Zealand edelweiss, *Leucogenes* spp. perhaps would take the award of 'most beautiful'. Leonard Cockayne described it thus: 'a fine sounding name for a noble plant' and further '…though concluding this list (the flora and vegetation of the high mountains), might with more propriety stand at the very top'.

Four species are recognised. *Leucogenes leontipodium*, 'North Island edelweiss', occurs in low–high alpine regions from Mt Hikurangi – Raukumara Range – central and southern North Island mountains to a few sites in North West Nelson. *Leucogenes grandiceps*, 'South Island edelweiss',abundant in low–high alpine regions, South Island and Stewart Island. *Leucogenes neglecta*, occurs on the divide between the Wairau and Awatere Valleys in Marlborough. *Leucogenes tarahaoa*, found only on Mt Tarahoa (Mt Peel) in South Canterbury.

All New Zealand species bear a superficial resemblance to the famous Northern Hemisphere 'Swiss edelweiss', *Leontopodium alpinum*. The leaves of this latter are deciduous and very different in shape and texture from our endemic species.

Leucogenes leontopodium, Tararua Forest Park. Photo: Jeremy Rolfe.

The intriguing geometric shape, the glistening sheen (sometimes almost copper, or silver) of the leaves and the 'flannel' or 'everlasting' flowers distinguish them from all other New Zealand alpine plants. Whereas the European plant is deciduous, all our *Leucogenes* species are perennial, and the 'flannel flowers' are in fact small closely congested flower heads surrounded by radiating floral bracts.

Leucogenes grandiceps. Photo: John Sawyer.

'The species glory of these ranges' (wrote Leonard Cockayne) 'is the sheets of North Island edelweiss'. Masses of its glistening foliage grace rock outcrops and exposed windswept sites throughout the North Island ranges. It is more upright in its growth than the three South Island species. There are those who consider *L. grandiceps* (South Island edelweiss) as being the most beautiful of the four species. It is indeed a wonderful sight as it cascades in great drifts over masses of rock debris in extremely exposed sites.

The Marlborough endemic *L. neglecta* is confined to the mountains of the Wairau – Awatere divide. It is a more straggling form than its near relative, the truly North Island *L. leontipodium*, is easier to cultivate and flowers more readily in cultivation, but seems more short lived in garden conditions.

The last of the four species, *L. tarahoa*, is really rather a more dwarf form found growing naturally only on Mt Tarahoa in South Canterbury where its environmental status is 'serious decline'. In cultivation it flowers in late winter/early spring and appears to be relatively long lived.

In the wild where *Leucogenes* and *Raoulia* species grow closely together, hybridisation sometimes occurs, giving rise to many interesting plants known as 'Leucoraoulias'. Of these perhaps the best known is *Raoulia* ×'Loganii' (*Raoulia rubra* × *L. leontipodium*), first collected many years ago on Mt Hector, Tararua Range. There is another most beautiful form (*R. grandiflora* × *L. leontipodium*) occasionally found where the two parents grow side by side in the northern Tararua Range.

There are of course a much greater range of such hybrids found in the South Island mountains where *L. grandiceps* hybridises with the 'cushion' *Raoulia* species, the so-called 'vegetable sheep'.

Leucogenes tarahaoa, Big Mt Peel, Canterbury. Photo: John Smith-Dodsworth.

Expert growers of New Zealand alpine plants seem to agree that these 'Leucoraoulias' are easier to cultivate than either of the parents, but as with so many plants that constitute the New Zealand alpine flora, many myths abound concerning the cultivation of the sometimes 'difficult' and 'temperamental' edelweiss species.

Our experience over many years has been that alpine plants in general are wonderfully adapted to the very special environments in which they have evolved over very long periods of time, and even plants grown by extremely knowledgeable specialist nurseries still find adaptation to lowland cultivation extremely difficult. Growers can only hope that attention to certain basic principles and more than a little good luck will enable one to enjoy these wonderful plants for just a few seasons.

For *Leucogenes* and their hybrids a very gritty soil that **never** dries out is essential. A sunny **windy** situation in either a raised border, rock/alpine garden or, for the enthusiast, a properly prepared scree provides the best chances for success.

For a time it is possible to grow these plants in pots or containers using a good standard potting mix to which is added a quantity of peat or leaf mould plus some gravel or builders mix to ensure perfect drainage. The containers must **never** be allowed to become too dry.

All species and hybrids are intolerant of winter rain on their foliage and some protection must be devised or sudden death will result. As the plant grows older, mildew is an ever present danger against which there is very little protection and treatment.

Where possible any serious grower of our incomparable native flora should make the effort to incorporate the 'New Zealand edelweiss' and its wild hybrids into their gardens or collections. A number of New Zealand native plant nurseries sell well grown, healthy plants of most species and hybrids. **Never** remove plants from a wild location, this is condemning the plant to an almost certain death.

With attention to soil, water and the amount of sun and wind to which these plants are exposed (Note: Part shade is recommended for North Island growers) and an ounce of the afore-mentioned luck, the grower will be well rewarded by the beauty, in leaf, form and flower of these truly 'national treasures'.

References

1. Leonard Cockayne: New Zealand plants and their story. Fouth Edition. Edited by E. J. Godley. 1967
2. For a useful list of Leucoraoulias see Joe Cartman, 'Growing New Zealand alpine plants'. Reed Methuen 1985

Important Plant Areas – open for nomination

The Network is now calling for nominations of Important Plant Areas using the on-line nomination form on the Network website (www.nzpcn.org.nz) – see NZ Native Flora>NZ Important Plant Areas.

Important Plant Areas (**IPAs**) are the best sites for wild plants and fungi. The purpose of an **IPA** programme is to identify a network of sites within each biogeographic zone that are critical for the long-term viability of naturally occurring wild plant populations. The identification of IPAs in New Zealand and throughout Oceania is valuable so that conservation efforts for wild plant species and their habitats may be appropriately targeted to these sites. Target 5 of the Global Strategy for Plant Conservation is that "protection of 50% of the world's most important areas for plant diversity assured by 2010". So that New Zealand can achieve this target the Network is working to identify IPAs and criteria for identification of these areas have now been developed. The Network is now calling for nomination of sites using the form provided. These sites will be examined by an expert panel every few months and if supported will become part of the Networks IPA database. Gradually the Network will build up a database of the most important areas in New Zealand for plants which will aid our conservation programme.

Regional Council Threatened Plant lists on-line

A new tool has just been added to the Network website that enables the download of lists (in the form of Excel spreadsheets) of all threatened plants that occur within each region of New Zealand. This can be found under Threatened species>Threatened Vascular Plants>Threatened plants lists.

Click on the second options which states: "For threatened plant lists by territorial authority and regional council boundaries – click here". This will give you the option of lists by Local authority or Regional Council for North and South Island. We have yet to complete the database for local authority so **use only the regional council search option**. This will provide you with a map of New Zealand. Role your cursor over the council area that you are interested in and click to obtain the threatened plant list for that region. Please contact us if you find any mistakes in the lists.

New Release

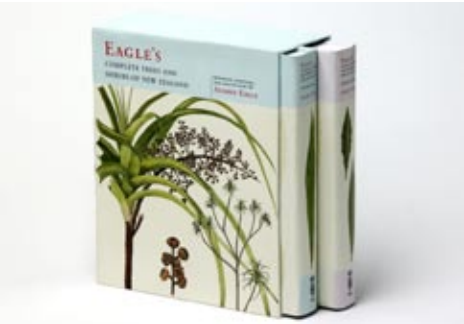
From Te Papa Press

Eagle's Complete Trees and Shrubs of New Zealand

By Audrey Eagle

Publication date: **November 2006**

NZ RRP (incl. GST): $200.00



Every known native New Zealand tree and shrub – in colour and life size

This beautiful two-volume set brings together Audrey Eagle's botanical artworks from her best-selling 1975 and 1983 publications. It includes **over 170 new paintings,** bringing the total number of plants to more than 800—all in colour and life-size. Flowers, fruits, and other features are shown in superb detail.

Accompanying the illustrations are comprehensive notes, written in consultation with expert botanists, They provide up-to-date information on each plant's habitat, distribution, identification, nomenclature, and more. This is an outstanding contribution to botany in New Zealand—and an essential addition to any library.

About the author

Audrey Eagle has been painting New Zealand native plants since1952. The author of *Eagle's Trees and Shrubs of New Zealand in Colour* (1975) and a number of other books, Eagle is an active member of botanical and conservation societies such as the Royal Forest and Bird Protection Society, the Nature Conservation Council and the Loder Cup Committee. *Eagle's Complete Trees and Shrubs of NZ* represents her life's work and the achievement of her goal: to illustrate representatives of all genera of native trees and shrubs.

Extent: **Two hardbacked volumes of 500 pages each, in a slipcase. Containing 500 full-colour plates.** ISBN: **0909010080.**
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Te Papa Press: Tel 04 381 7470, Fax 04 381 7280, Email TePapaPress@tepapa.govt.nz

Upcoming events

If you have important events or news that you would like publicised via this newsletter please email the Network (events@nzpcn.org.nz):

Auckland Botanical Society – Labour Weekend Camp: Otamatea, North Kaipara

21–23 October: We will stay in shearers' quarters at Oneriri Station on the Oneriri Peninsula, one of the many headlands dividing the arms of the Kaipara Harbour. Contact: jenny@wildlands.co.nz

Wellington Botanical Society Field trip – Dench garden weeding, Saturday

28 October: Co-leaders: Arnold and Ruth Dench, 37 Lyndfield Lane, Newlands, ph 477 4490. Meet from 9.30 a.m. Bring food; hot drinks provided. Bring gloves, kneeler and weeder.

Botanical Society of Otago – Eagle's Complete Trees and Shrubs of New Zealand Book Launch

Monday, 30 October: Start time: 6.00 p.m. Eagle's Complete Trees and Shrubs of New Zealand will be launched by Professor Alan Mark in Dunedin to coincide with an exhibition of Audrey Eagle's artwork at the Otago Museum. Audrey warmly invites all BSO members to join her in celebrating the publication of her decades of dedicated botanical drawing. Contact Allison Knight, phone: (03) 479 7577.

Auckland Botanical Society – Evening Meeting

1 November 2006. Unitech School of Natural Sciences. Darren Crayn: "Ericaceae".

Wellington Botanical Society Field trip – Pakuratahi Forks, Kaitoke Regional Park

Saturday, 4 November: Introduction to Mosses. Learn to distinguish mosses from liverworts, and to recognise some of the common moss genera and species that can be identified in the field with a x10 hand lens. Essential equipment: ×10 hand lens (usually available at The Met Shop, Swan Lane). Useful equipment: vertical-tilting head torch, pencil/ball pen (notes will be provided), pocket knife. Recommended preparatory browsing: NZ Plant Conservation Network website "What is a Moss?" (www.nzpcn.org.nz/mosses/index.asp) and related links. Meet 9.00 a.m.at the Pakuratahi Forks carpark. Trip leader: Peter Beveridge 237 8777; deputy leader: Rodney Lewington 475 3145.

Auckland Botanical Society – Field Trip to Rotoroa Island

4 November 2006. This trip on the "Hauturu" will be led by Ewen Cameron

Botanical Society of Otago – Trip to Lammerlaw Range with Prof. Alan Mark

Saturday 11 November, 2006. Start time: 8:30 a.m. Black Rock Scientific Reserve, DCC water catchment area to look at the snow tussock burning study of Landcare/AgResearch/DoC/Forest Research plus the controversial 30-ha reservoir currently under construction for TrustPower's Deep Stream Hydroelectric Augmentation project, TrustPower's Mahinerangi Windfarm proposal and Deep Stream Scenic Reserve/Te Papanui Conservation Park. The road gives access to the edge of Te Papanui Conservation Park (where we can see the intake for Dunedin's water supply) plus the area of the controversial TrustPower's 30 ha water reservoir for its Deep Stream Hydroelectric project. Vehicles powerful enough for a steep gravel road will be helpful. Fallback date if weather bad: Sunday 13 November. Contact Alan Mark, phone: (03) 479 7573.

Botanical Society of Otago – New Zealand Biodiversity Recording Network

Wednesday 15 November, 2006. Start time: 5.20 p.m. A talk by Dr Colin Meurk, Landcare Research. Colin will bring us up-to-date with this exciting new web-based system to record and process natural history observations (birds, plants, butterflies, mushrooms, reptiles, frogs and mammals). This is a way of providing secure storage for data outside of institutional plot-based databases which can then be used to create distribution maps, graphs and species lists. At the Zoology Benham Building, 346 Great King Street, behind the Zoology car park by the Captain Cook Hotel. Use the main entrance of the Benham Building to get in and go to the Benham Seminar Room, Rm. 215, 2nd floor. Please be prompt as we have to hold the door open. Contact Mike Thorsen, phone: (03) 453 6800.

Wellington Botanical Society Field trip – Te Marua Bush workbee

Saturday 18 November: BotSoc has been committed since 1989 to do weed control and re-vegetation work in this important matai-totaramaire remnant in Kaitoke Regional Park. A grant from Greater Wellington Regional Council enables us to hire a contractor to help with weed control, but our biennial workbees must continue so that we keep ahead of re-invasion by weeds, particularly around the plantings. So please come to help with this important work and also help with more plantings. Bring: gloves, kneeler, weed bag, and your favourite weeding tools e.g. trowel, hand fork, loppers, pruning saw, pinch bar. Meet: Upper Hutt Station carpark at 9 a.m., or Te Marua Bush at 9.30 a.m. (250 m north of Te Marua Store and 50m off SH2 along the road to Te Marua Lakes, Kaitoke Regional Park). Catch 8.05 a.m. train on Hutt line from Wellington Station, and tell leaders you wish to be met. Maps: R26 Paraparaumu and Upper Hutt street map. Co-leaders: Glennis Sheppard 526 7450, Sue Millar 526 7440.

Auckland Botanical Society – Lucy Cranwell Lecture

20 November 2006. This year's Lucy Cranwell Lecture will be held as part of the Cheeseman Symposium. Ewen Cameron will be speaking on the life and times of Thomas Cheeseman.