



# TRILEPIDEA

Newsletter of the New Zealand Plant Conservation Network

No. 159

February 2017

Deadline for next issue:  
Wednesday 15 March 2017

## SUBMIT AN ARTICLE TO THE NEWSLETTER

Contributions are welcome to the newsletter at any time. The closing date for articles for each issue is approximately the 15th of each month.

Articles may be edited and used in the newsletter and/or on the website news page.

The Network will publish almost any article about plants and plant conservation with a particular focus on the plant life of New Zealand and Oceania.

Please send news items or event information to [events@nzpcn.org.nz](mailto:events@nzpcn.org.nz)

### Postal address:

P.O. Box 16102,  
Wellington 6242,  
NEW ZEALAND

## PLANT OF THE MONTH – *RANUNCULUS SCRITHALIS*



*Ranunculus scrithalis*. Photo: Sue Lake.

The plant of the month for February is *Ranunculus scrithalis*, one of many *Ranunculus* species endemic to New Zealand. The species is adapted to life in the extremes of the mid to high alpine zone. It is found only on a very specific type of habitat—consolidated fine clay rich scree with a thin coating of fine loose gravel over the top. It has a very restricted distribution, being found only

in the alpine areas of the Eyre Mountains in northern Southland. The plant grows as single rosettes, consisting of a few short brown-green fleshy leaves (<10 cm) with their bases buried in the ground, and is very well camouflaged within its scree habitat except when in flower. The yellow flowers are very large compared with the plant and are held just above the ground, within the leaves. The leaves have large sparse hairs over all surfaces and die off over winter leaving below ground level a fleshy live stem that re-sprouts in spring.

The species is similar in appearance to other fleshy leaved, scree-inhabiting *Ranunculus* species such as *R. haastii* and *R. pilifera*. *Ranunculus pilifera* is sympatric with *R. scrithalis*, but is easily distinguished by its much larger, less dissected and blue green rather than brown green leaves, that have hairs only on their lower surface, if at all.

The species is currently listed as At Risk–Naturally Uncommon because of its very confined distribution but relative abundance within the Eyre Mountains. It is very palatable and is prone to browse damage, especially of the flowers, by hares, chamois and deer. The species is probably declining as result. Plants are not easily cultivated because of its specific habitat requirements; plant parts should not be removed from the wild.

The genus *Ranunculus* is a very large and widespread, with at least 600 species scattered all over the world. The name *Ranunculus* is apparently Latin for “little frog”. This probably refers to many species being found near water, like frogs. You can view the NZPCN website factsheet for *Ranunculus scrithalis* at: [http://www.nzpcn.org.nz/flora\\_details.aspx?ID=661](http://www.nzpcn.org.nz/flora_details.aspx?ID=661)

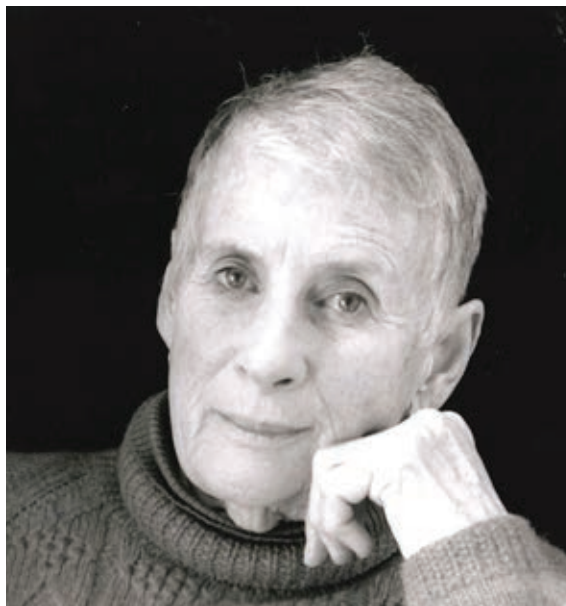
## Barbara Jean Mitcalfe née Fougère 25 November 1928 – 7 January 2017

Bachelor of Arts in French, 1951, Victoria University College; Wellington Teachers Training College, 1947–1948.

*Chris Horne; the Mitcalfe whanau; Dr Lara Shepherd, President, Wellington Botanical Society*

Barbara was born in New Brighton, Christchurch. With a well-reputed Chatham Island naturalist great-grandfather and farmer grandfather (both named James Johnny Fougère), it could be said that Barbara's love for New Zealand ecology, and her indefatigable work ethic, were in her blood.

A celebration of Barbara's remarkable life was held on 15 January 2017 at Tapu Te Ranga Marae, Island Bay, Wellington. This was fitting. Barbara had been asked in the late 1980s by kaumatua, Bruce Stewart, to assist with the Manawa Karioi Society's (MKS) revegetation project around Tapu Te Ranga. From 1989 to 1991, Barbara, and her partner Chris Horne, had helped to tend seedlings in the MKS nursery, cut narrow tracks across the gorse-covered hillsides, and plant seedlings in small clearings near the tracks. People attending Barbara's celebration could admire, through the windows of the whare kai, the results of years of work by MKS volunteers since then—mostly native vegetation, with little gorse remaining.



The eventual goal of Manawa Karioi and other kindred organisations is for a stretch of native bush, “holding hands”, all the way from Wellington's South Coast to the Tararua Range. Barbara's advocacy for the restoration of Wellington's indigenous ecosystems, using her botanical knowledge and her practical involvement, are evident right across this region, as well as in the city itself.

Barbara had an irrepressible love of the backcountry, for its native flora and fauna, its adventures and, later, for the companionship with her partner it brought. They met on a Wellington Botanical Society field trip in 1981, on the Red Hills, Marlborough.

At college and at university, Barbara was a keen tramper. Her five children and many grandchildren are also lovers of the outdoors and have been heard to comment that Barbara was hard to keep up with and that she will be a hard act to follow.

In the North Island, Barbara's botanical tramps included a traverse of Raukumara Range, from Waiorongomai Valley near Ruatoria, via Te Kahika and Motu valleys, to Toatoa. Other traverses included two in Te Urewera; a crossing of the Kaimanawa Mountains and Kaweka Range; two in Tongariro National Park; Mt Egmont National Park, from York Rd to Mangorei Rd; and three traverses in each of the Ruahine, Tararua and Rimutaka ranges.

In the South Island, her botanical tramps included Picton – Mt Robertson – Whites Bay; Nelson Lakes National Park (NLNP): Travers Valley – Arnst River – Six Mile Creek; Molesworth Station to NLNP: Lake Tennyson – Waiiau Valley – Lake Thompson – D'Urville River – Lake Rotoroa outlet; Kahurangi National Park: (1) Cobb Valley – Adelaide Tarn – Aorere Valley; (2) Murchison / Lake Matiri – Thousand Acre Plateau – Larrikins Creek–Mokihinui Valley – Seddonville; (3) Mt Arthur Range from Wangapeka Track to Moran Tarns; Mt White Station – Minchin Saddle – Turnbull Ck – Taramakau River– Harper Pass – Hurunui Valley – Windy Point. With former colleagues from WN Polytechnic – the ‘PolyPlodders’ group: (1) ascent of Mt Tapuae-o-enuku (2885 m); (2) Queen Charlotte Track; (3) Travers & Sabine Valleys – Lake Angelus – Robert Ridge.

For 34 years, together, Barbara and Chris enjoyed hundreds of Wellington Botanical Society field trips and meetings. They botanised numerous Wellington-region bush areas, sharing their interest in native

plants and indigenous ecosystems. After many tramps into the city's rugged south-west hinterland, Barbara and Chris presented in 1992 the paper *Some Indigenous Plant Communities on the Wellington Southwest Peninsula* to the Department of Conservation (DOC). They co-wrote many submissions on environmental topics to influence decision-makers and prepared over 200 lists of native and adventive plants. Many of the plant species lists compiled by Barbara and her partner were included in *Bibliography of plant checklists and vegetation survey data for Wellington Conservancy (excluding Chatham Islands)*, DOC, 2001.

Since 2011, they have written 65 articles on native plants for the Tararua Tramping Club's monthly newsletter, *The Tararua Trampler*. For the club's bush-craft courses, Barbara and Chris provided lectures and field sessions about native plants and on the Environmental Care Code.

Forever a dedicated student of the natural world, Barbara, despite lacking formal qualifications in botany, became known for her expertise as a field botanist specialising in native plant ecology. Barbara was President of the Wellington Botanical Society from August 1989 to April 1991, including the society's Jubilee year (1989). She was then Vice-President 1992 to 1994; Committee Member and Submissions Coordinator in the 1990s; and field trip co-leader at least twice a year for these last 20 years. Barbara instigated the Wellington Botanical Society Jubilee Award, which funds botanical research with grants of approximately \$2,500 p.a. to recipients from, amongst others, Victoria University's School of Biological Sciences.

Barbara was also a member and driving force within numerous other conservation and environment groups. In 1989, Barbara, with Angela Sears, founded the Wellington Polytechnic Environment Group. Barbara was a foundation member of Karori Sanctuary / Zealandia and was awarded her 20-year Volunteer Badge in 2015. Her last work there was in November 2016, setting mouse-traps on Mouse-Line A. Barbara's work at the Sanctuary was diverse, including track cutting and pest control in the 1990s; the capture of weka and little-spotted kiwi on Kāpiti for release in the valley; recapture of escaped weka(!); northern rātā trials; and guiding botanical walks. To encourage botanical awareness rather than too narrow a zoological focus for Zealandia, Wellington Botanical Society funded a Botanical Trail there. True to form, Barbara's personal contribution was the compilation of plant descriptions, a glossary of plant names and some ecological notes for this trail. Barbara received an Outstanding Volunteer Award at the Sanctuary's inaugural awards ceremony in 2001.

Barbara and her partner received a 2001 Conservation Week Award "For inspirational commitment to the protection and restoration of the natural environment".

There were many particularly special areas for Barbara's focus—Otari-Wilton's Bush; Long Gully Bush Reserve; Te Mārua Bush; Mākara Foreshore Reserve to name a very few. For many years, Barbara led botanical walks for Otari-Wilton's Bush. During the Open Days when native plants were offered to the public for sale, Barbara was available in her Otari uniform, complete with Wellington Botanical Society T-shirt and name tag, to offer advice on which plants were most suitable.

Long Gully Bush is a 55-hectare block of regenerating native forest and adventive shrublands, protected in perpetuity by a QEII National Trust Open Space Covenant. Barbara was a foundation Trustee (c. 1998) of the Wellington Natural Heritage Trust, which owns and manages Long Gully Bush. The trust also manages approximately 50 hectares of contiguous private land, adjacent to and west of Karori Sanctuary. Barbara was co-compiler of the first plant list for Long Gully Bush and contributed to the management plan for the site.

Te Mārua Bush, Upper Hutt, is a regionally rare matai-tōtara-black maire terrace forest. After leading difficult negotiations to save this site from proposed State Highway 2 expansion in the 1980s, Barbara spearheaded Wellington Botanical Society's liaison with Greater Wellington Regional Council (GWRC) and Upper Hutt Forest & Bird (F&B) to foster the continued restoration of this forest. Since 1989, there have been two joint working bees annually and these were often led by Barbara.

Barbara advocated, on behalf of Wellington Botanical Society, for the cessation of quarrying on Wellington's south coast (*Evening Post*, 29.5.1991), and for the planting of northern rātā, rather than pōhutukawa in Wellington (*The Dominion Post*, 26.12.2016).

Barbara was an excellent author. Amongst other works, she compiled *NZ Native Plants Recommended for Restoration and/or Amenity Purposes in Wellington Regional Parks* (2002) for Wellington Regional Council and reports for DOC's Protected Natural Areas Programme. She appeared before the Environment Court, on behalf of Wellington Botanical Society, in the successful attempt to save Larsen Crescent Bush, Redwood, from clearance for subdivision. In 1999, Barbara provided botanical advice for the compilation of the *Wellington Regional Native Plant Guide*, of which 20,000 copies were sold. She was involved in the preparation of DOC's publication *Native plants for streamsides in Wellington Conservancy*, and wrote the leaflet *Six reasons why not to plant pōhutukawa in Wellington*. Barbara also provided various contributions to the Wellington Botanical Society Bulletin.<sup>1</sup>

After Barbara's retirement from Wellington Polytechnic, she was offered a range of botanical contracting work, often in partnership with Chris. Examples of her field work include:

**Department of Conservation 1994–1999:** helping to establish c. thirty-five 20 m × 20 m permanent plots in the Tararua Range and in coastal forest from Waikanae to Colonial Knob, Porirua; **1992:** listing plant species in aviaries at Pūkaha / Mount Bruce; **1996:** listing plant species in Crighton's / Richards' forests, Otaki Forks; c **1997:** monitoring predation of *Powelliphanta* snails in Makahika Reserve, Ohau Valley, near Levin; **1997/1998:** listing native and pest plant species in coastal vegetation in Turakirae Head Scientific Reserve & Parangarahu (Pencarrow) Lakes; **2000:** monitoring northern rātā, Waiohine Valley, Tararua Range; and **2004:** recording locations of the orchid, *Drymoanthus flavus*, and the iris, *Libertia edgariae*, in East Harbour Regional Park.

**Greater Wellington Regional Council, 1998:** listing native plant species on cliff faces at Baring Head / Orua Pouanui; **2001:** listing native and adventive plant species in Queen Elizabeth (QE) Park; **2002-03:** first botanical survey of Wainuiomata and Upper Orongorongo catchments, 16 plant lists prepared; **2002:** fruit-fall plots, East Harbour Regional Park; **2003:** monitoring seedling plots in Pakuratahi Forest; **2003 & 2004:** listing native plant species in QE Park; **2003:** listing native plant species in wetlands, Akatarawa Forest; **2003:** listing native plant species on Mt Climie ridge; and **2004:** monitoring enclosure plots in QE Park.

**Hutt City Council, 1996:** Botanical surveys of private native forests being Significant Natural Resource Areas in HCC's Proposed District Plan; this resulted in *The Mitcalfe Report on the Ecological Significance of Seven, Selected, Privately-owned Sites in the Hutt City Area of Jurisdiction*. Barbara prepared evidence on behalf of the Minister of Conservation.

**Wellington City Council, 1990s:** leader and co-leader of "Feeling Great" recreation programme walks, including titiwai/glow-worm walks in Otari-Wilton's Bush and in Wellington Botanic Garden; **1999:** co-compiler of a report on the natural, historical and recreational values of Brian Kilmister's former farm on Wellington's Outer Green Belt; and for the upper Karori Stream tributary parallel to Mākara Rd; **2003:** co-collector of kōwhai seed from Long Gully Station coastal forest; **2003:** co-compiler of a report on the native and adventive vegetation of Tapu Te Ranga Island, Island Bay, Wellington.

**Mākara Foreshore Reserve, 1997:** co-compiler of *Botanical survey of Mākara Foreshore Reserve, Owhariu Bay, Mākara*; since **1998:** co-designer of the text and selector of images for the information display, co-writer of the text for a leaflet, co-reporter on problems with fencing and litter in the reserve, and co-weeder and co-planter in it (her last visit weeding was 20.12.2016).

**EnergyDirect Corporation Ltd, 1994:** co-compiler of a list of native plant species on the raised marine terrace portion of Baring Head / Orua Pouanui.

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<sup>1</sup> Barbara's co-authored articles for the Wellington Botanical Society Bulletin include Mākara Foreshore Reserve (Nos. 48, 49, 54); nikau in Wellington city (No. 54); plus on non-local indigenous vascular plants in Wellington (No. 53).

**Friends of Wellington Botanic Garden, 2003:** co-compiler of *A Botanical Survey of the Indigenous Forest Remnants in Wellington Botanic Garden, Glenmore Street, Wellington.*

**Fauna Recovery NZ – Sue Freitag & Barry Dent Charitable Trust, 2013:** co-compiler of plants lists on Pūangi Island, Marlborough Sounds.

**Winstone Aggregates, 2013,** Western Hutt hills, co-compiler of a report on a botanical survey.

Voluntary and unpaid botanical work continued throughout Barbara's life. In recent years, she revegetated road reserves, provided advice to revegetation projects and was involved in establishing and monitoring riparian planting trials on the banks of the Hutt River. Barbara advocated for the five native forest areas in Wellington Botanic Garden (WBG) to be given more publicity and interpretation and for work to prevent encroachments by neighbours, weeds and exotic plantings into these heritage forest areas. She discovered seedlings of black maire in WBG, near the sole remaining adult tree and arranged for Garden staff to grow these on in the nursery, for later planting in the Garden's native forest areas. Barbara was involved with the Wellington Plant Conservation Network (WPCN), the forerunner of the NZ Plant Conservation Network.



Barbara planting in Tawatawa Reserve, Wellington.

Barbara was a keen guardian of Nga Rengarenga<sup>2</sup>, her treasured QEII Open Space Covenant, protecting 0.06 ha of regenerating native forest in Boundary Rd, Kelburn. She was an environmentalist to the end. She specified in her will that her remains “... be enclosed in a cardboard container and cremated ...”. Barbara's wishes were granted. Without any embalming required, Chris and Barbara's whanau were able to be her personal undertakers and funeral directors, showing her respect for the environment to the end<sup>3</sup>.

Barbara was a passionate educator, and a dedicated advocate for the environment. Even as initiator of the first Māori pre-school in 1959<sup>4</sup>, a primary-school teacher in the 1970s, a teacher of communications and Māori pre-employment and women's re-training at Wellington Polytechnic, Barbara brought the environment, particularly the plant world, to the fore of her students' minds. Barbara was also an advocate for the use of and correct pronunciation of Te Reo. She included a column of Māori names in her plant lists, in addition to the botanical and common names.

As a member of Wellington Botanical Society she will be remembered for her botanical enthusiasm and knowledge and her willingness to share this knowledge with others. Her energetic capacity to inspire enthusiasm in others was a gift. She was indeed a 'mighty tōtara', but as Wellington Botanical Society member Mick Parsons said, “To the plant conservationists and botanists among us, she will not be the mighty tōtara that fell; she was a great chunk of the forest, and especially the bits that few would notice. Those of us who focus on those little bits will always have her in our thoughts as we fossick about on our knees, adoring the plants she so loved. We won't be allowed to forget her.”

Rewi Elliot, President, NZPCN, and Acting Manager, Wellington Botanic Garden, wrote: “Barbara has

2 Donations have been received in Barbara's memory, towards the maintenance of her “Nga Rengarenga” covenant in Kelburn. Thank you. If you wish to make a donation, it can be made to M A Mitcalfe, at The Co-operative Bank: 02-1242-0866223-031.

3 The plywood-based, casket-shaped cardboard coffins are viewable here: <http://www.cardboardcasket.co/index.html>

4 The free book about this is available at: <http://www.teahuheritage.co.nz/store.htm>

been an inspirational person for me, her passion for plants and her expressiveness about her passion I have always admired". Sheelagh Leary, a long-standing member of Wellington Botanical Society, wrote: "She offered everyone challenges and support for nearly every aspect of our natural world, its importance to the future of the world in fact. I'm thinking about her humour, strength, for making us think ... so many wonderful things in a wonderful person." Barbara's neighbours, Sarah Stevenson and Phil Gurnsay wrote: "Barbara was an amazing and inspirational lady, her passion for the bush at the back of our properties was effervescent." Haami Piripi wrote: "Barbara was a wise and humble person who deserves accolades for the contribution she made to New Zealand society across a range of genre. She is the first Pākehā woman I met whom I put up there with my own whaea and kuia." Di Buchan wrote: "Barbara was a great woman—full of integrity and so selfless in the way she shared her knowledge with others to repair our damaged environment." James Fraser wrote: "Barbara is my gardening guru." James has felled a pōhutukawa in his garden and replaced it with a northern rātā.

## **New Zealand Indigenous Flora Seed Bank (NZIFSB)**

Jessica Schnell ([J.L.Schnell@massey.ac.nz](mailto:J.L.Schnell@massey.ac.nz)) and Craig McGill ([C.R.McGill@massey.ac.nz](mailto:C.R.McGill@massey.ac.nz)).

### **2017 Seed Collecting Programme**

The 2017 seed collecting programme is about to begin in earnest. In the coming months, a number of collecting expeditions will be undertaken. There will be expeditions led by the seed bank coordinator and we expect expeditions by trained collectors coordinated by the seed bank coordinator. In 2017, the seed bank will continue its focus on collecting seed of alpine species, the Myrtaceae and Fabaceae. Of course, collections of species outside these three target groups are welcome. To help us to collect effectively, could any New Zealand Plant Conservation Network members who have observed any alpine species, Myrtaceae, Fabaceae or other species seeding and have not already done so please enter the details into the Nature Watch / iNaturalist seedbank page: <http://naturewatch.org.nz/projects/nz-indigenous-flora-seed-bank>

Collecting expeditions are already planned for Auckland (Myrtaceae), Taranaki (alpine species and Myrtaceae), the Central Plateau (alpine species, Fabaceae and Myrtaceae), Manawatu (Fabaceae), Wellington (Fabaceae and Myrtaceae), Nelson and Marlborough (alpine species and Fabaceae), Canterbury (alpine species and Fabaceae) and Otago (alpine species and Fabaceae). These are the areas where there are a relatively large number of trained collectors. The seed bank coordinator will be in touch shortly with trained collectors in these areas with details of the expeditions. The seed bank is always pleased to receive collections from any location and invites trained collectors in all areas, including those mentioned above to contact the seed bank coordinator with your collecting plans for 2017.



Sampling rangiora (*Brachyglottis repanda*) seed at Otari Wilton's bush as part of the practical day in conjunction with the seed bank workshop in Wellington in December. Photo: H. Colmet-Cartraud.

For 2017, training workshops are planned for East Cape and Taranaki. These are two areas where training workshops have not yet been held. As usual, the training will include at least one day of seed collecting. As soon as further information becomes available for these and other workshops, we will advise you.

The year just ended was a record one for the seed bank with over 90 accessions collected. Of these, just over 40% of the collections made in 2016 were sent in by trained collectors. Let's aim for 2017 to have over 50% of the collections sent in by trained collectors and together make 2017 an even more successful year for the seed bank. We look forward to hearing about your collecting plans.

## **New Zealand Plant Conservation Network strategy 2016–2020**

The Network strategy 2016–2020 was published in *Trilepidea* 158. Comments are invited from all Network members and may be made to [info@nzpcn.org.nz](mailto:info@nzpcn.org.nz). The comments will be collated and considered at the next Council meeting in late March or early April.

### **Land tenure reviews**

The tenure review process was initiated by the Government in the mid 1990s, as a means of addressing environmental degradation of the rangelands, as well as saving on its costs of administering the 303 rangeland leases (which exceeded its income from the rentals). Initiated by a lessee farmer, the tenure review process involves a renegotiation of the lease to separate the more productive, usually highly modified, lower altitude areas from the more vulnerable, usually less modified, higher elevation lands. These latter areas usually had significant inherent (landscape, indigenous biodiversity, soil and water conservation, recreational, etc.) values. These lands would revert to full Crown (i.e., Government) control and management (by the Department of Conservation), and the more productive lands could be made free-hold. In addition to tenure review, the Government has also purchased the lease-hold interests of five high country rangeland properties, amounting to 125,792 ha, to be managed for their conservation values.

The situation as at September 2002 was analysed and this indicated that some 12.3 per cent of the original country-wide indigenous grassland baseline (1840) area was formally protected but only 9.1 per cent of the rangeland portion (Mark and McLennan, 2005; see Table 1). Within the rangelands, the four major grassland types varied considerably (the fifth type, sward grassland, not a rangeland type, had been minor, ~2 per cent overall), both in the proportion still remaining and also in the degree of protection. For the low-alpine tall snow tussock grassland, some 96 per cent of the baseline area remained, inevitably modified to varying degrees through 150 years of pastoralism, and 27 per cent of this remaining area was formally protected in 2002. By contrast, only 42 per cent of the montane-subalpine short tussock grassland (see picture above) remained, inevitably modified, but only 3 per cent of this remaining area was formally protected at this time. Of the other two grassland types, the montane-subalpine tall snow tussock type (see photos above), with 12 per cent of the baseline area protected, had fared better than the tall red/copper tussock type, which occupies more gentle slopes, often able to be cultivated (8 per cent). The same pattern prevailed for the country as a whole (Mark & McLennan, 2005; see Table 1).

The situation was updated to December, 2007 for presentation at the Tussock Grasslands Hohhot workshop (Mark et al., 2009), by which time the formally protected area of indigenous grasslands had increased from 12.3 to 15.4 per cent of the original baseline area of 82,436 km<sup>2</sup>. This increase was essentially the result of continuing tenure review of the South Island rangelands. Here, protection involved mostly the higher altitude types: low-alpine tall snow tussock grassland increased by 13 per cent to 40 per cent; the montane-subalpine tall snow tussock grassland by 9 per cent to 21 per cent of the baseline value; and the montane-subalpine tall red/copper tussock grassland by 7 per cent to 15 per cent; but the lowest elevation, short tussock grassland increased by only 2 per cent to 5 per cent. This latter grassland type continues to be poorly represented and is currently undergoing rapid land use transformation.

The tenure review process is still on-going and, as at April, 2012, reviews have been completed on 83 of the 303 properties, five have been purchased by the Government, 42 were in various stages of the formal process, while applications had been made for another 68, and 105 were not in the review process. Of the 83 completed reviews, totalling 441,188 hectares, 51 per cent of the land has been taken out under free-hold agreement while the remaining 49 per cent, including the five government-purchased properties, has reverted to full government ownership and control, and are managed by the Department of Conservation. This is close to the 50 per cent value indicated by the Government when the special legislation, the Crown Pastoral Land Act, 1998, was being debated in the mid 1990s.

Rangeland areas that have now been formally protected are designated as conservation areas while, beginning in 2000, the larger areas, exceeding 20,000 ha, have been designated conservation parks, of which there are currently 10, amounting to 581,032 hectares. These extend from northern to southern South Island and all contain a range of upland ecosystems, representative of much of their ecological region, while some, such as Ahuriri and Hakatere Conservation Parks, have important altitudinal corridors and sequences of ecosystems, and are more adequately representative of their ecological region. Some additional conservation parks have been identified in conservation strategy documents for the four eastern South Island conservancy regions, which hopefully will be implemented with the completion of future tenure reviews. Thus, over the last 50 years, the indigenous grasslands of the South Island rain-shadow region have greatly increased their proportion of New Zealand's total conservation lands, which now cover some 34 per cent of the country's area.

The process is ongoing with the most recent one being the Twin Peaks Preliminary Proposal, the submissions on which closed on 13 February. If you are interested in keeping an eye on tenure review proposals then regularly go to: <http://www.linz.govt.nz/about-linz/what-were-doing/consultation>  
(*Editor's note: This article was taken with permission from Mark (2012).*)

### References

- Mark AF. 2012: Recent progress with the conservation and protection of temperate indigenous grasslands in New Zealand. *Parks (The international journal of protected areas and conservation)* 18(1): 37-48.
- Mark AF, McLennan B. 2005: The conservation status of New Zealand's indigenous grasslands. *New Zealand Journal of Botany* 43: 245-270.
- Mark, AF, Michel P, Dickinson KJM, McLennan B. 2009: The conservation (protected area) status of New Zealand's indigenous grasslands: an update. *New Zealand Journal of Botany* 47: 53-60.

### Christchurch Port Hills fire

In *Trilepidea* 157, we reported that Di Carter, a Ranger for Christchurch City Council, had been given an Excellence Award for the restoration work on the Port Hills that she has encouraged and supervised. The sad news is that the fires over the week 13-17 February have destroyed some of her efforts. A patch of trees planted in the Kennedy's Bush area by the Bishopdale Tramping Club, under Di's supervision, have all been burnt as has one part of Thompsons Bush. On the positive side and perhaps indicative of Di's enthusiasm for restoration, she informed the tramping club in an email that "We will replant, and I'm ordering extra plants for your Kennedys site". She has already had many offers of help and will no doubt use them to good purpose as soon as access to the burnt out sites is permitted. (Canterbury people see also in Events, the talk by Nick Ledgard who co-authored an opinion piece in on restoration after a fire *The Press* of 24 February.)

### Coastal Restoration Trust of New Zealand, National Conference, 2017: Diverse coastal environments in a time of change

Christchurch Beaches and coastline are to feature in National Coastal Restoration Conference 22-26 March, 2017. The Coastal Restoration Trust of New Zealand (previously Dunes Trust) is pleased to announce that its 2017 annual national conference will be held at New Brighton beach, Christchurch.

The conference theme "Diverse coastal environments in a time of change" will show-case the wide variety of coastal landscapes in and around Christchurch/North Canterbury and discuss local and national issues and challenges faced in coastal restoration and management. The three days will include field-trips around the Christchurch urban beaches and the North Canterbury coast. For more information and registration please go to:

<http://www.coastalrestorationtrust.org.nz/news-and-events/annual-conference/christchurch-2017/>

The Coastal Restoration Trust (<http://www.coastalrestorationtrust.org.nz/>) is a nationwide organisation that brings together the knowledge and experience of communities, iwi, management authorities, industry and science agencies to save our coastal sand dunes and to support and encourage the



development of cost effective practical methods for coastal communities and management authorities to restore natural dune form and function.

As a non-profit organisation, the Coastal Restoration Trust aims to keep registration fees for its conference at a level that allows community groups, students, agency staff and other organisations to participate. This ensures a mix of ideas, skills and perspectives and enables all participants to build their knowledge and understanding about coastal restoration.

## 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](mailto:events@nzpcn.org.nz)):

### Auckland Botanical Society

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**Meeting:** Wednesday 1 March at 7.30 p.m. for the AGM followed by a talk by the Lucy Cranwell Grant recipient, Stevie Noe, titled 'Nectar yield in manuka' (TBC). **Venue:** Unitec Room 115-2017.

**Contact:** Maureen Young,  
email: [youngmaureen@xtra.co.nz](mailto:youngmaureen@xtra.co.nz).

**Field trip:** Saturday 18 March to Awhitu.

**Leader:** Tricia Aspin.  
**Contact:** Maureen Young,  
email: [youngmaureen@xtra.co.nz](mailto:youngmaureen@xtra.co.nz).

**Field trip:** Sunday 26 to Friday 31 March for the autumn camp at Taylor Memorial Lodge, Pokaka, Tongariro National Park.

**Leader:** Mike Wilcox  
email: [mike.wilcox@xtra.co.nz](mailto:mike.wilcox@xtra.co.nz).  
**Contact:** Maureen Young,  
email: [youngmaureen@xtra.co.nz](mailto:youngmaureen@xtra.co.nz).

### Waikato Botanical Society

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**Field trip:** Saturday 18 March to Mt Tarawera combined with the Rotorua Botanical Society

**See below for details.**

### Rotorua Botanical Society

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**Field trip:** Sunday 5 March to Ottawa Forest Sanctuary Kauri, Te Puke. **Meet:** the car park Rotorua at 8.00 a.m. or at 1254 No. 3 Rd, Te Puke, at 9.00 a.m. **Grade:** medium-hard.

**Leader:** Paul Cashmore  
ph: 07 349 7432 (wk),  
027 650 7264,  
email: [pcashmore@doc.govt.nz](mailto:pcashmore@doc.govt.nz).

**Field trip:** Saturday 18 March to Mt Tarawera combined with Forest and Bird and the Waikato Botanical Society (Sunday 19 March reserve day if Saturday is wet). **Meet:** DOC Rotorua Office, 99 Sala St, Rotorua, (go in Scion (Forest Research) north entrance and turn left before the locked gates) at 8.30 a.m. or DOC Ashpit Road campground, Lake Rerewhakaaitu at 9.15 a.m. **Grade:** medium-hard and in particular confident walking on steep mobile scoria slopes and along high and sharp ridges. **Registration:** minimum age 14 years; a maximum of 30 people on trip on a first come basis so must register with Paul Cashmore by Monday 13 March at latest. **Cost:** free. **Bring:** minimum 2 litres water, lunch and snacks, wet weather and warm gear, sun hat, sunblock, boots or sturdy shoes, gaiters and/or leggings an advantage for loose scoria, gloves for pulling out pines.

**Leader:** Paul Cashmore,  
ph: 07 349 7432 (wk) or  
027 650 7264  
email: [pcashmore@doc.govt.nz](mailto:pcashmore@doc.govt.nz).

## Whanganui Museum Botanical Group

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**Meeting:** Tuesday 7 March at 7.30 p.m. for a talk by Diane Harries on the recent Bryology Workshop, Coromandel, December 2016.

**Venue:** Museum's Davis Lecture Theatre.

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## Wellington Botanical Society

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**Field trip:** Saturday 4 March 'Seaweeds for beginners'. **Meet:** at 10.00 a.m. near the toilet block, Te Raekaihau Point (between Island Bay and Lyall Bay). **Bring:** sturdy shoes.

**Leader:** Leon Perrie,  
ph: 027 419 1378.

**Meeting:** Monday 20 March at 7.30 for a talk by Frances Forsyth titled 'Biodiversity plan at Victoria University'.

**Venue:** Victoria University Lecture Theatre M101, ground floor Murphy Building, west side of Kelburn Parade; enter building off Kelburn Parade about 20 m below pedestrian overbridge.

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**Field trip:** Saturday 1 April to Kaukau and Te Wharangi ridge to the south. **Meet:** at 9.30 a.m. at 109 Rifle Range Rd (if you would like a lift from Johnsonville Station, please contact the leaders).

**Co-leaders:** Eleanor Burton,  
email [troggs@paradise.net.nz](mailto:troggs@paradise.net.nz),  
ph: 021 058 8324, or Jane Humble,  
email [jhumble16@gmail.com](mailto:jhumble16@gmail.com).

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## Nelson Botanical Society

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**Field trip:** Sunday 19 March to Moa Park. **Meet:** at the Church steps at 8.00 a.m. Please register with the leader in case of cancellation.

**Leader:** Beryce Vincenzi  
ph: 03 545 1985.

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## Canterbury Botanical Society

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**Meeting:** Monday 6 March at 7.30 p.m. for a talk by Nick Ledgard titled 'Assisting post-fire regeneration of native plants through seeding'. **Venue:** Upper Riccarton Library community meeting room, 71 Main South Road.

**Contact:** Alice Shanks,  
ph: 03 337 1256,  
email: [alice@caverock.net.nz](mailto:alice@caverock.net.nz).

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**Field trip:** Saturday 11 March to Coopers lagoon wetland to search for the lady's tresses orchid.

**Contact:** Alice Shanks,  
ph: 03 337 1256,  
email: [alice@caverock.net.nz](mailto:alice@caverock.net.nz).

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## Otago Botanical Society

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**Meeting:** Wednesday 8 March at 5.20 p.m. for a talk by Dr Barbara J. Anderson, Ecologist and Research Scientist, Landcare Research, titled 'Breaking down decomposition: Using teabags to investigate decomposition rates along aspect and elevation gradients'. **Venue:** 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.

**Contact:** Robyn Bridges,  
ph: 03 472 7330.

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**Field trip:** Saturday 11 March to Mount Watkin/Hikaroroa (foul weather back up date Sunday 12 March). **Meet:** Botany Department car park at 8.30 a.m.

**Contact:** Robyn Bridges,  
ph: 03 472 7330,  
email: [robyn.j.bridges@gmail.com](mailto:robyn.j.bridges@gmail.com).

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