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NEWSLETTER OF THE NEW ZEALAND PLANT CONSERVATION NETWORK
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E-NEWSLETTER: NO 92. JULY 2011 Deadline for next issue: Monday 15 August 2011

Editorial

John Sawyer (Auckland Council)

Two weeks ago the Global Partnership for Plant Conservation met at the Missouri Botanic Gardens in the USA. The Network joined this partnership earlier in 2011 and I was nominated to attend as our representative. The aims of the meeting were to hear about worldwide implementation of the Global Strategy for Plant Conservation and to plan the next steps towards achieving its objectives. A more detailed report will be published in a subsequent newsletter.

There were three things I learned at this meeting. Firstly, New Zealand is doing a world class job of protecting native plants and implementing the Global Strategy. We may not be perfect but compared to the rest of the world our report card looks good. Our problems look small compared with megadiverse countries such as Colombia, where coca production is causing ongoing forest destruction. In New Zealand the combined programmes of the Plant Network, regional councils, the DOC, other NGOs, private land owners (especially covenantors), the thousands of community groups, and researchers in government CRIs and universities have achieved many good things.

Secondly, it became clear that the plant conservation community often works on the political margins. The global strategy (and our NZ plant conservation movement) is often seen by politicians as benign and of little interest or importance. Our challenge is surely to reverse that and bring plants, and the benefits they provide, into the heart of discussions about environmental management, economic recovery and biodiversity protection. Plants are often the sustainable solution to protect watersheds, conserve soils, prevent floods, sequester carbon, shelter humans and wildlife and support the world's biodiversity. Plants are also a culturally important part of our landscape, an aesthetic backdrop to our cities and a sustainable resource fulfilling many human needs.

Finally, I realised what a lot of work is still to be done. There is no technological reason for any plant species to go extinct yet this has not led to a reversal of fortune for our threatened plants with most species some way from being classified as "Secure". Native plants still have no legal protection on private land. Twenty percent of DOC's technical advisors are about to lose their jobs. A huge task remains of educating politicians, communities and landowners about the value of plants and the importance of their conservation. Would it really matter to them if a native species goes extinct when 30 crop plants produce 95% of calories in the human diet?

The Network needs you to support the national seed bank with more acquisitions especially of seed from threatened species populations. If a tsunami, like the one that devastated Japan earlier this year, hit various parts of New Zealand many species could go extinct overnight. You may also like to buy the latest plant training module on how to grow native plants.

It is now the UN Decade of Biodiversity. It is critical at this time that we double our conservation efforts, but not necessarily continue with the same old tactics. So what will you do to implement the Global Strategy for Plant Conservation by 2020? Email the Network Council where our priorities should be and also remember to share what you are doing via this newsletter (info@nzpcn.org.nz).

PLANT OF THE MONTH – *LEPTINELLA POTENTILLINA*

Leptinella potentillina. Photo: John Sawyer.

Plant of the month for July is *Leptinella potentillina*. This lush spreading button daisy has a curious distribution; endemic to the Chatham Islands and Auckland Island. It is a coastal plant, usually growing in damp seepages, coastal turfs and sandy hollows. A robust creeper with thick yellow green leaves, it grows quickly in the right conditions though will die back if there are prolonged dry periods. Pale lemon-yellow flowers appear in spring and summer. This is a very easily grown garden plant, and probably deserves wider cultivation. It is not threatened, but naturally uncommon being restricted to these islands. This plant is very common on the Chatham Islands, though much less so on the Auckland Islands, where it mainly known on Adams Island. The Network fact sheet for *Leptinella potentillina* can be found at: www.nzpcn.org.nz/flora_details.asp?ID=568

Conservation Department to Lose 102 Support Jobs

The Department of Conservation has told its 650 support staff that it will be looking to shed 102 jobs in the coming months.

Twenty percent of the Department's existing 350 science and technical roles will be lost. DOC says the move comes as part of on-going steps to re-organise the department's work to better direct resources to its conservation work in the field.

The jobs to be shed will come from its support functions in DOC's National Office in Wellington and its eleven regional conservancy offices.

DOC says it will be working with staff and their unions to identify exactly what positions will be affected over the next three months and the positions are expected to be dis-established towards the end of the year.

"1080 must not be banned" says Environment Commissioner

Parliamentary Commissioner for the Environment Dr Jan Wright has last month released a report investigating the use of 1080. The report is entitled "Evaluating the use of 1080: Predators, poisons and silent forests".

In the report Dr Wright recommends against a moratorium on 1080 citing the damage that would be done to native forests and animals if such a ban went ahead. "Possums, rats and stoats are chewing up our forests to the point that we are only a generation away from seeing regional extinctions of kiwis and other native species where no pest control is carried out. "There are other pest control methods that are more suitable than 1080 in certain circumstances but on much of our conservation land there is currently nothing else that will effectively kill possums, rats and stoats. "While there may be an alternative to 1080 one day, if we want to keep our forests for future generations we simply cannot afford to stop using 1080. Time is not a luxury we have. "So many of our native forests, birds, reptiles and insects are unlike those found anywhere else in the world and form a distinct part of our identity. It would be a travesty to allow these to disappear."

The report was tabled in Parliament and recommends that:

1. Parliament does not support a moratorium on 1080.
2. The Minister for the Environment investigate ways to simplify and standardise the way 1080 and other poisons for pest mammal control are managed under the Resource Management Act and other relevant legislation.
3. The Minister of Conservation establishes the Game Animal Council as an advisory body that works collaboratively with the Department of Conservation, but ensures that responsibility for all pest control remains with the department.
4. The Minister of Justice introduces an amendment to the Ombudsmen Act 1975 to add the Animal Health Board to Part 2 of Schedule 1 of the Act, and thereby make the Animal Health Board also subject to the Official Information Act 1982.
5. The Minister of Conservation asks the Department of Conservation to prioritise the development of national policy and operational procedures on possum fur harvesting.
6. The Minister of Conservation improve information about pest control on the conservation estate by providing consistent and accessible information on the Department of Conservation website, including the purposes and results of different pest control operations.

Applications open for the David Given Research Scholarship

The David Given Threatened Plant Research Scholarship is now open for applications to fund research (maximum $5000) that assists the protection and recovery of New Zealand's threatened plant species and threatened plant communities. Threatened species and communities can be either nationally or regionally threatened. Plant species include vascular plants, ferns and cryptograms as well as fungi.

Applications addressing each of the subject areas on the following scholarship application form should be emailed (preferred delivery option) to info@nzpcn.co.nz, or posted to the New Zealand Plant Conservation Network, PO Box 16 102, Wellington and marked "David Given Scholarship". Applications close 30 September 2011. The entry form is included at the end of this newsletter.

Applicants must be New Zealand residents or citizens but the work could involve overseas researchers who collaborate with the principal researcher.

The NZPCN administers the David Given Threatened Plant Research Scholarship which is offered to applicants biennially. This award was named after the late David Given in recognition of his considerable influence on plant conservation in NZ and worldwide over his lifetime.

How to grow native plants – new training module published

How to grow native plants and manage a plant nursery is the latest plant training module to be published by the Network. This is the third module in the Network's marae-based plant training courses.

If you would like to purchase a copy please go to the Network's on-line shop. The price is $25 (Network members), $30 (non-members). This course booklet is 55 pages long and includes chapters on:

- Plant nursery management
- Cultivation of NZ indigenous plants
- Propagation from seeds and spores
- Special sowing techniques
- Propagation from cuttings

The first two booklets are also available for purchase from the network shop. The fourth booklet entitled "How to restore streamsides and wetlands" will be published later in 2011.

Mount Aspiring plan approved

Associate Professor Abby Smith, Otago Conservation Board (abby.smith@stonebow.otago.ac.nz)

Mt Aspiring National Park now has a new management plan. Covering over 355,500 hectares in Otago and South Westland, Mt Aspiring is New Zealand's third largest national park. The park straddles the Southern Alps between the Routeburn Track near Glenorchy and the Haast Pass Highway and is part of Te Wahipounamu - Southwest New Zealand World Heritage Area.

Board Chairperson Assoc. Prof. Abby Smith said that members of the Otago Conservation Board were "ecstatic" to hear that the new plan had been formally approved by the New Zealand Conservation Authority. "It's taken over 10 years and a lot of effort by a lot of different people for the Department of Conservation, the Board and the Authority to complete the review of the previous park management plan," she said.

"The new plan will help DOC to manage the park effectively over the next 10 years or so. It draws attention to the importance of protecting threatened wildlife like the rare Haast tokoeka (kiwi) on the Haast Range in South Westland and the native birds in the Dart and Routeburn Valleys. The plan also allows visitors to enjoy the park in many different ways. For example, there are places where people can go to experience a feeling of remoteness and 'natural quiet', and other places where helicopter landings will be permitted."

The Board sincerely thanks the many members of the public who have contributed to the review of the park management plan over the past few years via submissions, hearings and other ways. Copies of the new plan will be available for public viewing later this year.

For further information, please contact:

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New species of *Lepidium* on Snares Islands

Sue Lake, Department of Conservation (slake@doc.govt.nz)

The Snares Islands are not only just a few hundred hectares of granite and peat in the midst of the great southern oceans but they are home to several million seabirds, a handful of land-based birds and an indigenous vascular flora of a mere 20 species. One of these vascular species has now been identified as a species new to science!

A patch of *Lepidium* growing on a cliff top on Signpost Hill, Snares Island. Photo: Sue Lake.

This new species is a perennial herb in the genus *Lepidium*. It has long been thought to be closely related to the Cook's scurvy grass (*Lepidium oleraceum*) that grows on coastal mainland sites, but DOC botanist Peter de Lange has found many distinctive features, such as having only 2 stamens, that make this plant a completely different species. Peter, along with Peter Heenan and Gary Houliston of Landcare Research, is currently undertaking a taxonomic review of the genus. On seeing photographs of the flower parts he commented "seeing these images makes me laugh—how could anyone have thought these plants were the same as *Lepidium oleraceum*!"

In October 2010 two biodiversity monitoring staff from DOC's Te Anau Area Office completed a census of *Lepidium* over the two main Snares islands and established some monitoring to track population trends over time. The plants were found growing in scattered patches on dry peaty soils

around cliff tops and were often associated with feeding sites of brown skua. The team found a good mix of mature and juvenile plants in generally lush and healthy condition.

The census showed the total area of plants to be less than one hectare in size, confirming its current conservation status of Acutely Threatened/Nationally Critical with the qualifiers Range Restricted and Island Endemic. Peter suggests the qualifier Data Poor should also be added since trend data and the status of the plant outside of the Snares is as yet unknown.

The taxonomic revision of the genus *Lepidium* will include a new species name for the Snares plant, and is due for publication soon.

Mount Ida remains conservation land

Land at Mt Ida near Ranfurly in Central Otago will remain public conservation land following agreement between the Department of Conservation (DOC) and the Mt Ida Syndicate, a group of Maniototo farmers. This settlement comes after prolonged negotiations between the Crown and the Syndicate over the best use of the land.

The Mt Ida block has been grazed for over a century under a pastoral occupational license, a type of fixed-term lease with no automatic right of renewal. Debate began in the 1960s over the effects of summer grazing and burning and vegetation transects were established by the Waitaki Catchment Commission to gauge the rate of vegetation recovery after stocking rates had been reduced. After carrying out a number of surveys in the 1990s DOC recommended that the land be given conservation status.

In 2008, the Commissioner of Crown Lands, David Gullen, designated the Mt Ida pastoral occupation licence land for vesting in the Department of Conservation (DOC) for conservation purposes. The Mt Ida Syndicate then sought a judicial review of the Commissioner's process.

In an out of court agreement, the parties agreed that the land will remain as public land. Full public access to the land is guaranteed and the land and infrastructure such as mustering huts will be managed by DOC.

Otago Conservator Marian van der Goes said the settlement brought certainty to the future status of the land and enabled DOC to effectively manage it. "The public can now be confident that their ability to access and enjoy this land is preserved for all time. The land adjoins Oteake Conservation Park which is becoming increasingly popular to a wide range of visitors including 4WD users, trampers and hunters," she said.

Under the agreement, the Mt Ida Syndicate will be able to graze the land for a 12-week period every year for the next ten years. The effects of the grazing will be monitored. Syndicate members will be able to occupy huts on the land for stock management purposes during the limited grazing period. Spokesman for the Mt Ida Syndicate, Alistair Scott, said, "This agreement allows the Mt Ida Syndicate families to continue their 110 years of association with this land. When we built the tracks and huts it allowed us to manage the land economically. These same tracks and huts have allowed the wider community to enjoy the natural values that we also wish to protect."

The Commissioner, David Gullen, said this agreement should not be viewed as creating a precedent for other pastoral occupation land, as each case "has to be dealt with on its merits, including an assessment of the legal risks and the particular circumstances of the case. In this case, the protection of conservation land was paramount".

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Kermadec Biodiscovery Expedition 2011 (Part 1)

Peter de Lange, Department of Conservation (pdelange@doc.govt.nz)

I have always been fascinated with remote islands. Ever since I can remember, I have always wanted to know what's out there and, as a child, I used to pour over maps of the Pacific looking at all the islands and wondering if I would ever go there. I especially wanted to visit the Kermadec Islands, though I can't really say why beyond that they are there and getting to them seemed more feasible than say visiting Ducie Island!

The Kermadec Islands are the northern-most expression of geopolitical New Zealand. The islands —all volcanic (basalt, basaltic andesite and dacitic) in origin—owe their origin to the subduction of the Pacific plate under the Indo-Australian one and are part of a long chain of mostly submarine volcanoes that reach from the Taupo Volcanic Zone of the Central North Island north to Tonga. Interestingly, people often refer to the Kermadecs as part of New Zealand when, at least in a geological sense, they have not ever been connected to the now mostly submerged Zealandia subcontinent (see Campbell & Hutching 2007 for a discussion on Zealandia). Biologically, however, the biota of the islands are influenced more by New Zealand proper than those islands in the immediate vicinity of the Kermadecs (most especially Norfolk Island), those of the wider south Pacific or, to some extent, eastern Australia.

Not long after joining the Department of Conservation, I put together a proposal with Bill Sykes to research the threatened plant flora of Raoul Island, although this internal bid was successful, for myriad reasons, the work never eventuated. Over the next 20 years, I seemed destined to be organizing to get other people to the islands and consoled myself with the fact that I had undertaken field work on many other islands both within New Zealand and the wider Pacific. The important thing, really, was the security of the plants not who went there, provided, of course, those who went there actually did something and wrote it up!

Then, in late 2008, I was told that I was required to visit the Kermadecs to collect (of all things) bryophytes. Bryophytes are a group of plants that I know very little about. Like many New Zealand botanists, I appreciated that they existed and that they were important but I resolved that, as others researched them, all I could do was support their work and collect specimens as and when I could. Also, to do them properly, I certainly didn't fancy the need to purchase microscopes, let alone find the space to store such equipment in my house. So, you can imagine my surprise when the Department of Conservation advised that my task was to document the bryophytes of the Kermadecs!

Fig. 1. View from Moumoukai the highest point on Raoul Island.

That field work happened in May 2009 and, for many reasons too complicated to explain, I ended up having only two and half days of a projected 10 on Raoul Island, which, at 2943 ha and 518 m is both the largest and highest of the 16 or so islands and islets that make up the Kermadec archipelago (Fig. 1). On Raoul, along with Auckland Conservancy, Department of Conservation botanist Dave Havell, I spent long hours (including field work by torch light) collecting what I could from a very small part of the northern end of Raoul. Despite the short time in the field, I came back from Raoul with 540 numbers and from these a swag of new bryophyte (Fig. 2) and lichen records as well as even a few vascular plant ones that were recognised. At the time, I never thought I'd be back so, beyond setting in motion the preparation of several papers about what was found in the 2009 visit, most of which are still progressing (though at least one (Renner & de Lange *in press*) will be out any day now), I returned to doing my more usual pressing botanical research.

Last year, in August, The Pew Foundation and Te Papa Tongarewa co-hosted the symposium "*DEEP – talks and thoughts celebrating diversity in New Zealand's untouched Kermadecs*" (Nelson & Golder 2011). At this conference, Dr Tom Trnski from the Marine Department of the Auckland War Memorial Museum floated a long standing idea of his and Clinton Duffy (Marine Unit, Research and Development, Department of Conservation) of a major marine expedition to the Kermadec Islands, New Zealand's largest, and probably least explored, marine reserve. Although I did not attend the conference, some kind soul nominated me to participate on what was then hoped to be an all expenses paid research expedition! When I was told about this in October 2010 and was asked whether I was interested in going, it didn't take me long to decide that "Yes" seemed appropriate even though I had no idea why I had been asked to go! Alas, by December 2010, the trip was no longer likely to be fully funded and keen participants were asked to find the necessary funds. After trying a number of avenues, I was pleased to be financially supported by the Department of Conservation. I say "pleased" because the expedition was not a Department of Conservation sponsored trip but since it was one from which the department stood to gain much information to enable better management of the islands, it was great to be funded by the department. I also should add that the department not only funded my participation but that of Warren Chinn, the invertebrate specialist with the Canterbury Conservancy, Department of Conservation. This was a real bonus because we have long recognised that perhaps the least well documented groups of the terrestrial islands' biota are the invertebrates.

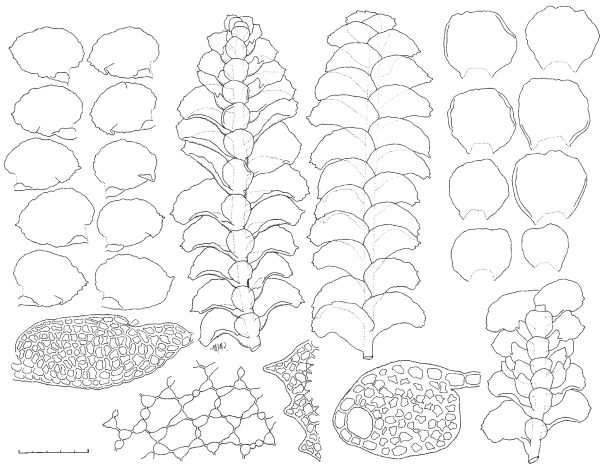

Fig. 2. *Thysananthus spathulistipus*—one of several tropical liverworts recently recognised for the New Zealand Botanical Region on Raoul Island, Kermadec Islands group. Illustration: Matt A. M. Renner.

Fig. 3. RV *Braveheart* moored at Sulphur Point, Tauranga.

Having secured the necessary funds, all we could do now was plan for what promised to be a unique opportunity to visit all of the key islands in the Kermadec group. The trip now dubbed "Kermadec Biodiscovery 2011" was using the RV *Braveheart* (Fig. 3). This ship, based at Tauranga, is run as a research vessel by Nigel Jolly. He and his crew have extensive experience of not only the Pacific Islands but also the Atlantic (South) and Indian Oceans as well as the Antarctic sea. The ship is kitted out with everything you'd ever need to land on islands, climb mountains and dive. Further, the crew are highly seasoned professionals and the ship is skippered by Nigel's son Matt. Needless to say, *Braveheart* is used extensively by the Department of Conservation to service its Raoul Island outpost, and both Nigel and Matt know all the islands extremely well.

By early April, Warren and I met with most of the rest of the expedition team (and each other for the first time) at an all day meeting at Auckland Museum where Tom Trnski detailed the expedition, Nigel Jolly the ship and crews' abilities, and each of us what we sought to do. The research team comprised a wide slice of Australian and New Zealand marine biologists as well as the two terrestrial scientists, Warren and I (Fig. 4).

By early May, Warren and I were sporting the necessary landing and collection permits and field gear and, by May 8, we started making our way to Tauranga, Warren from earthquake ravaged Christchurch and I from geologically quiescent Auckland. At the *Braveheart*, we stowed our gear, all set for our departure time (11.30 a.m.) and date (May 9).

Fig. 4. The expedition team and crew celebrating below L'Esperance Rock having completed the survey of the Kermadec Islands (26 May 2011). The team, from left to right of image. Bottom Row: Mr Carl Struthers (Te Papa, Wellington), Mr Richie Robinson (Expedition photographer, Auckland), Dr Malcolm Francis (standing) (NIWA, Wellington), Ms Alison Balance (standing) (Radio New Zealand, Wellington), Dr Tom Trnski (standing) (Expedition Leader, Auckland War Memorial Museum, Auckland), Dr Mandy Reid (standing) (cephalopod specialist, Australian National Museum, Sydney), Mr Clinton Duffy (Marine Scientist, Department of Conservation), Mr Warren Chinn (Invertebrate Scientist, Department of Conservation). Back Row: Mr Ged Wiren (Technician, Auckland War Memorial Museum, Auckland), Ashley Manghley (*RV Braveheart* Engineer), Dr Vincent Zintzen (Te Papa, Wellington), Dr Peter de Lange (Threatened Plant Scientist, Department of Conservation), Mr Charles Bedford (Contract Technician working for Te Papa team), Carl Rogers (RV *Braveheart* Crew), Gary Melville (standing at back with chequered shrit, (RV *Braveheart* Crew), Mr Stephen Urllich (standing to front of Gary Melville, contract technician, Auckland), Dr Stephen Keable (marine invertebrates, Australian National Museum, Sydney). Kneeling rear far right, Mr Broughton Lattey (RV *Braveheart* Crew and Medical Officer), Mr Matt Jollie ((RV *Braveheart* Skipper).

For the trip, Warren and I had very clear objectives, mine perhaps easier than Warren's because the vascular flora of the Kermadecs is, thanks to Bill Sykes' work, already very well documented. As such, I was gearing up for another go at the bryophytes. I also decided to collect lichens because they are not very well known, especially from the outer islands. Seaweeds were also a target of mine especially since Warren and I would be in the intertidal zone while the bulk of the party would be lucky to make landfall. Warren had far simpler objectives…effectively collect anything and everything.

At 11.30 am on a cool clear Monday, we finally weighed anchor and set off. Initially, the majority of the expedition team wandered the decks and revelled in the late autumn sunshine but, not long past Mayor Island, as the ship's rocking motion increased, there was a gradual thinning on the decks as those less able to tolerate sea travel slowly slunk away. Even the initial excitement of a large pod of pilot whales, some common dolphins and then bottle-nosed dolphins could not help those prone to sea sickness. Eventually, at dusk, the North Island had already faded to a distant blur of mostly low cloud and now being cold on deck, we all headed for the *Braveheart* mess, some to the library, others for a meal and most to bed. It would be another full day before we sighted land – lonely L'Esperance Rock.

The next morning, the few unaffected by the surging seas were up bright and early for a hearty breakfast. The weather was squally and, aside from the occasional petrel, albatross and (oddly) flying sunfish (a startled one was seen to leap out of the water and sail by), little was seen until L'Esperance finally loomed on the horizon at about 12 p.m. (Fig. 5). This rock, the southern most of the Kermadec chain, is also the most isolated. It rises roughly 45 m out of the water and comprises several craggy pinnacles of jagged scoria and black basalt. It is also home to one endemic vascular plant, *Senecio lautus* subsp. *esperensis*, which I was especially keen to see. Sadly, the strong surges crashing into the rock made landing impractical; landing on L'Esperance would have to wait until the return trip when we all prayed the weather would be more

Fig. 5. L'Esperance Rock as seen from the RV *Braveheart* en route to Raoul Island (11 May 2011).

settled. On we went, steaming north-north east till about 5.00 pm when we saw in the murk another set of islands, Cheeseman and Curtis (Fig. 6). Curtis is an active volcano and, although we could not see into the crater, we sure could smell the sulphur. Sadly, by the time we passed through the passage between the islands it was nearly night and again high seas made landing impractical. It was agreed that we head on for Raoul Island.


Fig. 6. Curtis and Cheeseman as seen from the south at dusk (11 May 2011).

A third night of being thrown into the ceiling and walls of my bunk was hardly restful, so it was no surprise that I was up at 4.00 am when I noted the sudden change in engine sounds heralding our arrival at Raoul. Up on the bridge, I discovered that we were moored on the southern side of North Chanter, part of the Herald Islets that are nestled off the north-eastern coastline of Raoul (Fig. 7). As I watched the sunrise, I was amazed to hear, and then see, literally millions of screaming sea birds (Kermadec petrels, red-tailed tropic birds and masked boobies). Before long, other people came to join me, all as keen as I to get on with the day. However, North Chanter would have to wait because access is only from the northern side, and the same high seas that had dogged us all the way prevented any landings. Therefore, before long, the *Braveheart* turned and headed for the western side of the Meyer Islands where our mooring would be much better.


Fig. 7. Southern side of North Chanter, Herald Islets at sunrise (c. 5.30 a.m., 12 May 2011).

Acknowledgements

On my return from Kermadec Biodiscovery 2011 I found that many people wanted to know if I would provide a personal account of the survey. To do this justice, I found that it made more sense to break the expedition up into a series. So to that end, beyond acknowledging the skipper and crew of the RV *Braveheart* and the actual team (see Fig. 4), I will refrain from thanking people directly here. This will be done on the completion of this account.

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An opportunity to work on the Galapagos Islands

The Darwin Foundation is seeking an experience person to coordinate and lead the ecological restoration theme in its science directorate. This fulltime position involves the development of scientific projects focused on the following areas: 1) management of invasive species; 2) management of threatened species; and 3) ecosystem restoration.

For further information about this position, visit the Darwin Foundation website at: www.darwinfoundation.org.

Please send applications to the following email address by 15 August 2011: empleo@fcdarwin.org.ec

Gladstone Primary School Year 4 Environmental Project – an environmentally friendly carpark

Kane Henderson (*Kaine@gladstone.school.nz*)

Gladstone Primary School is based in Mt Albert, Auckland. It's one of the biggest Year 1–6 primary schools in New Zealand with more than 700 children on its roll. It is an official EnviroSchool and has won various awards for environmental projects over the years. The school's past involvement in environmental conservation includes the development of Nature and Edible Gardens, ongoing recycling and worm farms and this year (2011) every class is undertaking its own "Living and Giving" project. The aim is to make Gladstone a better, more sustainable, beautiful, environmentally aware place. To that end the Year 4 children of Rooms 37 and 39 decided to tackle something they felt very dear about—the dull, drab staff carpark outside their classroom windows.

Previously this area was given over to a rather lacklustre, poorly draining kikuyu (*Pennisetum clandestinum*) infested lawn, one large cedar (*Cedrus atlantica*), an ailing plane tree (*Platanus ×acerifolia*) and two silk trees (*Albizia julibrissin*). The children had noticed that the plane tree was dying and that a few fruit trees planted by previous school children were at death's door. They had also observed how cars tended to park all over the lawn. A few observant children had seen lizards (these were since identified as the indigenous skinks *Oligosoma ornata* and *O. aenea*) within a small native fernery known as the "Fern Moat Garden". During their survey of the carpark the children also discovered that the silk trees were the source of numerous seedlings and saplings that had established in the "Fern Moat Garden". Using the New Zealand Plant Conservation Network Website the children discovered that silk trees are now a weed species and they felt they should be removed.

As a result of this survey it was felt the area could do with a major tidy up, beautification and general landscaping. To fit in with the environmental theme the children were keen to plant native species that were threatened in the wild, were low maintenance and which would eventually confine cars to their rightful place—the asphalt carpark. As a result, in April it was decided that the children would replant the whole carpark area with the objectives of enhancing the native character of the place. This will also provide suitable "safe" habitat and food sources for birds and reptiles and assist with passively confining cars to their rightful allotted parking space.

Pupils at Gladstone Primary School plant native species in the school grounds.

Class teachers Kaine Henderson (Room 39) and Matt Yanko (Room 37) approached the children's parents to see if they could help and collectively the parents and children began the task of removing the silk trees (a two day process). Native plants were donated by Oratia Native Plant Nursery owner Geoff Davidson and soil by Rob Fenwick, founder of Living Earth and patron of the New Zealand Plant Conservation Network. The Department of Conservation provided Peter de Lange's time and expertise to assist the children with their survey, their interpretation of the Mt Albert landscape and environment and finally their plant selection and planting regime.

On a nice sunny Friday afternoon (1 July), all 60 children armed with spades, pitchforks, pick axes and rakes got down and *very* dirty. They weeded the area and then planted a total of 40 trees, shrubs and scrambling plants. The children worked in teams to help dig holes, free the plants from their bags and plant them properly.

The plants used were shrubby tororaro (*Muehlenbeckia astonii*), coastal maire (*Nestegis apetala*), whau (*Entelea arborescens*), houhere (*Hoheria populnea*), koru (*Colensoa physaloides*), jovellana (*Jovellana sinclairii*), Kermadec nettle tree (*Pouzolzia australis*), panekeneke (*Lobelia angulata*) and *Leptostigma setulosa*.

The children chose shrubby tororaro as the ideal species to form a natural hedge to help confine the cars, and also because the fruit is an important food source and shelter for native lizards and the foliage food for copper butterflies which are in decline around Auckland. In their decision they were also influenced by their research which showed that shrubby tororaro was being used in traffic islands in Wellington, not only to preserve genotypes but also to control the movement of speeding out of control cars! They also preferred this plant because it was listed as "Threatened". Other native choices were influenced by their rate of growth and suitability to Auckland's climate.

In the "Fern Moat Garden" the children wanted natural ground covers to help cover the ground between the kawakawa (*Macropiper excelsum* subsp. *excelsum*), nikau (*Rhopalostylis sapida*), kowhai (*Sophora microphylla*) and wheki (*Dicksonia squarrosa*) trees already growing there. They chose panakenake and *Leptostigma* because they were fast growing and once established they could tolerate trampling. The children also liked the white flowers and pink berries of panakenake. In this area they also planted koru and jovellana – mainly for their flowers but also because both are on the national "Threatened" or "At Risk" listings. Two coastal maire now grace the place the silk trees had occupied. Although at this stage it is not sure how they will tolerate the winter water logging that is a feature of the soil in this area, they were selected because once established they are very tough trees that will be ideal, safe climbing haunts for future generations of children.

Despite the name Kermadec tree nettle, this small tree has no stings. The children were keen to use it because not only is it fast growing but also a link to the Kermadec Islands – an archipelago some of the children had been learning about via the blog site set up by the Auckland Museum for the Kermadec Biodiscovery 2011 Expedition.

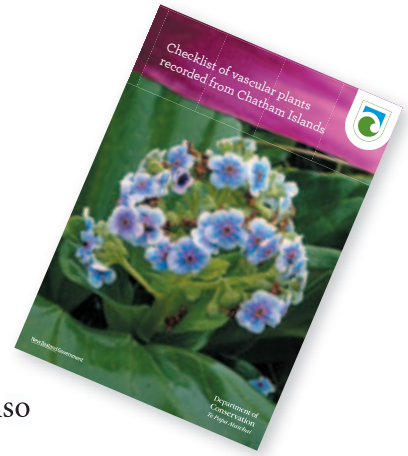
Newly planted trees around the car park.

Although the plants have only just gone in, the children are enjoying the positive response they have received for their project from school mates, teachers and parents.

Teacher in charge of the Year 4 garden redevelopment, Kaine Henderson, is very excited about the project's conclusion. "I have taught at the school for 18 months and wanted to do something like this for children to look back on in years to come. The Year 4 area is popular for children to use for learning throughout the day, as well as playing and climbing trees before and after school. It was an added bonus that I was able to get Peter de Lange's expertise to help us define our planting choices."

The children in Rooms 37 and 39 will remain closely involved with the planting for the next two years and probably long after they leave Gladstone School. It's been a really positive experience and one they could not have done without the kind donations of plants from Oratia Native Plant Nursery, soil from Living Earth, and teachers' and parents' time to assist with tree felling and removal and setting up the planting.

New Chatham Islands vascular plant checklist



Jeremy Rolfe, Department of Conservation (jrrolfe@actrix.co.nz)

The Department of Conservation has recently published an updated checklist of the vascular flora of the Chatham Islands. Co-authored by Peter de Lange (DOC Science & Research), Peter Heenan (Landcare Research) and Jeremy Rolfe (DOC Wellington Hawke's Bay Conservancy), the checklist updates, revises and expands on the previous checklist published in 1999. That checklist dealt exclusively with the indigenous flora of the Chathams, whereas the new checklist also includes records of naturalised exotic plants.

The checklist records 902 taxa and informally recognised entities that have been confirmed by voucher records. It provides a brief history of botanical exploration on the Chatham Islands and discusses the origins and distinctive features of the indigenous Chathams flora, which has two endemic genera and 41 endemic taxa, including three hybrid combinations. The authors note that the naturalised flora has more than doubled in the last 50 years. The potential weediness of many of the naturalised taxa and the implications for biosecurity on the Chathams are discussed.

A PDF of the checklist can be downloaded from the DOC website, www.doc.govt.nz/publications/conservation/native-plants/, or printed copies may be purchased for $15.00 from the DOC Wellington Visitor Centre, 18 Manners St, Wellington, e-mail wellingtonvc@doc.govt.nz and the Chatham Islands Area office, Te One, Chatham Island.

Otago and Southland Conservation Management Strategy reviews

Both the Otago and Southland Conservancies are currently reviewing their conservation management strategies and are seeking community views on the future management of conservation land in these areas.

Ideas put forward by the public will be considered for inclusion in DOC's Conservation Management Strategies for Otago and Southland. A Conservation management Strategy (CMS) is a 10-year plan about how DOC will manage public conservation land and waters and the priorities for conservation of natural and historical resources generally.

For further information on the CMS or to have your say, contact your DOC office.

To contribute to the Otago CMS:

otagocms@doc.govt.nz

www.doc.govt.nz/otagocms

To contribute to the Southland CMS:

southlandcms@doc.govt.nz

www.doc.govt.nz/southlandcms

Call for abstracts for the National Wetlands Symposium 2012

The theme for the 2012 National Wetland Symposium is "Wetlands – Are We Getting It Right?". Please submit oral or poster abstracts by 1 September to via this website: www.wetlandtrust.org.nz/symposia.html. The Symposium will be held from 21-23 March in Invercargill.

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):

Conservation Biology Conference 2011

Change of venue and dates: as a result of the 22 February earthquake that damaged much of Christchurch, including the Convention Centre, the ICCB conference 2011 has had to be shifted to Auckland with a consequential change of dates. The conference will now be held 5–9 December 2011 at the Sky City Auckland Convention Centre.	**Information:** Please visit our website for the most current information on the meeting (www.conbio.org/2011). We will update it regularly over the next few weeks to bring you the latest information on the venue, accommodations, conference trips, social events, and more.

60th New Zealand Ecological Society Conference

"Ecology in the Heartland: celebrating 60 years of the New Zealand Ecological Society". This year, the Conference is being held in Rotorua on 28 August – 1 September. There will be three to four concurrent sessions for most of the conference, including ten symposia. Professor Corey Bradshaw will be presenting as a plenary speaker. **Registrations** are now open, and Earlybird Rates close on 22 July.	**Further information:** about field trips, the student day, and the conference dinner at which the 60th year of Society will be celebrated, please visit the conference website: www.nzecologyconference2011.com

26th John Child Bryophyte and Lichen Workshop

Workshop: Thursday 1 December– Tuesday 6 December, 2011. **Venue:** Matawai; 70km north of Gisborne on State Highway 2. Open to all who are interested in bryophytes and/or lichens. Various levels of accommodation available. A second circular will be sent out in August to those who have expressed interest and confirmation of attendance and a deposit will be called for in that circular.	**Contact:** Anne Redpath, email: wairataforestfarm@farmside.co.nz or Leon Perrie, email: leonp@tepapa.govt.nz

Auckland Botanical Society

Meeting: Talk by Bruce Burns on the "Ecology of forest fragments in New Zealand's rural landscapes".	**Contact:** Maureen Young, email: youngmaureen@xtra.co.nz
Field trip: 20 August visit Titirangi bush reserves.	**Contact:** Maureen Young, email: youngmaureen@xtra.co.nz

Kaipatiki Project

Field trip: 6 August 9.30 a.m. Community Planting Day. Come and help us plant new native trees in beautiful Eskdale Reserve. Bring your family, school, church groups welcome. Free BBQ for all planters—bring a spade if you have one. **Venue:** Eskdale Reserve, Glenfield Road, Glenfield, North Shore, Auckland.	**Contact:** Lisa Ridahalgh, ph: 09 482 1172 or email coordinator@kaipatiki.org.nz www.kaipatiki.org.nz

Meeting: 10 August 10.30 a.m. –12.00 p.m. **Healthy Child, Healthy Planet, a**n eco-parenting session and playgroup in one. This month's topic is "Local Food Systems & Your Kids". Learn about Ooooby (*Out Of Our Own Backyards*), the social enterprise building local, accessible food systems in Auckland, from its founder, Pete Russell. This even is free but booking is essential. **Venue:** Kaipatiki Project Environment Centre, 17 Lauderdale Road, Birkdale, North Shore, Auckland.	**Contact:** Lisa Ridahalgh ph: 09 482 1172 or email admin@kaipatiki.org.nz

Auckland Council Northern Regional Parks

Public planting days: 24 July at Scandrett Regional Park; 8 August at Tawharanui Park. Start time: 10.00 a.m. Come and take part in the on-going ecological restoration of bush, wetland and sand dune areas in the parks. In exchange for your help, we will provide a barbeque lunch and hot drinks, hundreds of grateful trees and our thanks. We guarantee that you will leave us muddied but satisfied with a job well done! Please bring with you: good enclosed shoes or boots; a pair of gloves, if you have some; a spade, if you have one, cold drinks; your family and friends; your boundless energy.	**Contact:** Naomi Harrison, email: naomi.harrison@aucklandcouncil.govt.nz

Rotorua Botanical Society

Field trip: 7 August visit Oscar Reeve & Ohiwa Scenic Reserve, Ohiwa. Bring Gumboots! **Venue:** The carpark Rotorua at 8.00 am or corner of Ruatuna Rd and SH2 at Ohiwa at 9.30 am.	**Leader:** Paul Cashmore 07 348 4421 (hm), 07 349 7432 (wk) pcashmore@doc.govt.nz

Waikato Botanic Society

Meeting: Monday 8th August at 5:30 p.m. "What is going wrong with our lakes and what can we do about it?" Venue: Environment Centre, Level One, 25 Ward St, Hamilton. A meal follows at a local restaurant for those who would like to stay and carry on the discussion.	**Contact:** Cynthia Roberts, email: croberts@doc.govt.nz, ph: 07 8581034 (day) or 07 849 4935 (evening).
Meeting: 12 September. Talk by Dr Carol West "Understanding vegetation changes in a dynamic landscape—Raoul Island and the Kermadecs". **Venue:** Environment Centre, Level One, 25 Ward St, Hamilton.	**Contact:** Cynthia Roberts, email: croberts@doc.govt.nz, ph: 07 8581034 (day) or 07 849 4935 (evening).

Wanganui Museum Botanical Group

Meeting: 2 August 7.30 p.m. Annual General Meeting and short talks by members. Venue: Davis Lecture Theatre.	**Contact:** Robyn Ogle ph: 06 347 8547 robcol.ogle@xtra.co.nz
Field trip: 3 September visit Clive and Nicki Higgies farm arboretum; wear stout footwear for scrambling around hill slopes. Venue: Meet at 1 pm at 'Paloma', Denlair Rd, Fordell.	**Contact:** Clive Higgie 06 342 7857 clive.nicki@xtra.co.nz

Wellington Botanical Society

Field trip: 6 August visit Paekakariki Escarpment Forest to botanise and walk the new track. Good footwear is essential as the track is steep. **Venue:** Meet at the Paekakariki Café, Beach Rd, Paekakariki at 9.05 a.m.	**Leader:** Ken Fraser ph: 04 905 3714.
Meeting: 7.30 p.m. 15 August Annual General Meeting and AP Druce Memorial Talk by Dr Carol West "Learning from Tony at Taita and beyond". **Venue:** room MYLT101, Murphy Building, Victoria University, Kelburn Parade.	**Contact:** Julia Wright ph: 021 118 8841 rockwren19@gmail.com

Nelson Botanical Society

Field trip: 21 August trip to Tony Whitaker's QE11 Covenant **Venue:** Meet at 9am in Selwyn St between the gum tree and the Church steps.	**Contact:** Bryce Vincenzi, ph: 03 528 4549
Meeting: 22 August 7.30 p.m. Philip Simpson will talk on *Podocarpus*. **Venue:** Jaycee Rooms, Founders' Park, Nelson.	

Canterbury Botanical Society

Meeting: 5 August riparian planting of native plants Chris Phillips. **Venue:** St Ninian's Church Hall	**Contact:** Gillian Giller, ph: 03 313 5315.
Field trip: August 13 visit the Botanic Garden Herbarium.	**Contact:** Dean Pendrigh (027 2100815).

Botanical Society of Otago

Field trip: 6 August visit the diverse shrubland community at Akatore Creek. Venue: Meet at the Botany Department Carpark, corner of Great Kind Street and Union Street (West) at 9.00 a.m.	**Contact:** Robyn Bridges ph: 03 479 8372.
Meeting: 10 August 5.30 p.m. talk by Alex Fergus entitled "More Than Megaherbs: 200 years of vegetation change on subantarctic Campbell Island". **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. Please be prompt as we have to hold the door open.	**Contact:** David Lyttle, ph: 03 454 5470.

David Given Threatened Plant Scholarship

To fund research into the biosystematics and conservation management, protection and recovery of New Zealand's threatened plant and fungi species[1] and their communities.

Objective

The scholarship will be granted for research that assists the protection and recovery of New Zealand's threatened plant species and communities.

Eligibility and conditions

Applicants must be New Zealand residents or citizens but the work could involve overseas researchers who collaborate with the principal researcher.

Threatened species and communities can be either nationally or regionally threatened.

Plant species include vascular plants, ferns, cryptograms. Fungi are also covered by this scholarship.

Application

Please address the following areas in any written application for the scholarship.

***Issue*:** Outline the issue to be investigated and why it is important to study this.

***Research methods*:** Outline the approach you intend to take.

***Impact*:** How will your research contribute to the better conservation of the threatened species or community?

***Uptake*:** How will your research be used by your or other organisations?

Researchers: Outline the skills the researchers involved in the project have to ensure it can be successfully completed? Include current CVs of applicants.

***Funding*:** Do you have other funding that is contributing to this project?

***Budget*: O**utline the main items in your budget including equipment, laboratory and field expenses, and personnel.

***Risks*:** Are there any factors that you consider could limit the success of your proposal? How will you mitigate these?

***Referees*:** List 2 referees who can be consulted for their opinion on the proposed research

Scholarship rules

1. One scholarship shall be awarded every 2 years and provide up to $5000 towards the cost of the research project
2. The scholarship is to be awarded by a selection committee, which shall comprise
   a. The President of the NZ Plant Conservation Network (NZPCN)
   b. One other member of the NZPCN Council
   c. An independent person appointed by the NZPCN Council
3. The selection committee may refrain from making an award if, in their opinion, there is no applicant of sufficient merit
4. There are no application forms for this scholarship. Written applications addressing each of the above subject areas should be sent to the New Zealand Plant Conservation Network, Box 16 102, Wellington (info@nzpcn.co.nz) and marked "David Given Scholarship".
5. Referee forms (see below) should be sent to the two nominated referees for completion and posting or email to the Network.
6. **Applications close 30 September 2011.**

1. "Species" is used here collectively to encompass all named ranks (species, subspecies, variety and forma) and also includes those entities believed to be threatened and as yet without formal rank.