



Number 40  
March 2001

# RARE BITS

THE NEWSLETTER ABOUT THREATENED SPECIES WORK

*This newsletter is produced primarily as a vehicle for information exchange between departmental staff involved in threatened species recovery and ecological restoration programmes. In recognition of wider interest, however, "Rare Bits" is also provided to non-departmental groups on request. The newsletter's informal style may occasionally lead to misunderstandings for some of those readers. Views expressed by the authors are not necessarily those of the Department of Conservation.*

CONSERVANCY NEWS	
Northland	1
Bay of Plenty	2
Wanganui	3
Wellington	4
Nelson/Marlborough	6
West Coast	8
Otago	9
Southland	10
OTHER BITS	
Island roundup	11
Ecological	
Management Journal	12

## CONSERVANCY NEWS

### NORTHLAND

*from Karen Riddell and Richard Parrish*

#### **New reserve protects new tree species**

Seventy people including Tangata whenua, local residents, and DoC staff participated in a blessing ceremony of a newly protected property within the Waima Range. South Hokianga kaumatua, John Klaricich, blessed the land which was acquired through the Nature Heritage Fund. The area is a valuable addition to the contiguous Waima Forest Conservation Area. The area contains a tree new to science that appears to be a close relative of makamaka *Ackama rosifolia*. It occurs in one of Northland's wettest and coldest environments, at around 650 m above sea level. A survey of a portion of the site has so far revealed 285 individual plants, which greatly exceeds earlier estimations of the population.

#### **Brown teal**

The annual brown teal trend counts in January and February were 104 and 92 respectively, a significant drop from 174 and 162 in 2000. A handful of birds are 'hanging in' at the southern Bay of Islands. Around Teal Bay and Mimiwhangata, the birds are just holding their own, while the population around Whananaki has taken another serious drop to just 6 birds.

#### **Placostylus snails**

A visit to Motuopao Island off Cape Maria van Diemen on 8 February found 22+ live snails, including 17+ juveniles. This is very encouraging and shows that the nominate subspecies *P. ambagiosus ambagiosus* is making a comeback after falling to dangerously low levels prior to 1989 in the presence of kiore. Then, just 4 live snails were found during many hours searching. Progress was slow after the kiore were removed in 1989/90, but the population now appears to be on a growth spurt. In 1996, 10 snails were put together to allow mating. Maybe that had the desired effect.

#### **Lizards and chickens**

The transfer of 30 McGregor's and Mokohinau skinks to Whatupuke Island in the Hen and Chickens Islands was completed in December when 14 McGregor's and 8 Mokohinau skinks were captured on Sail Rock and Middle Stack respectively and released onto Whatupuke. This completes phase two of the planned releases onto the islands. The third phase (releases onto Coppermine Island) is on hold until we determine the fate of those released onto Lady Alice (Morotere) and Whatupuke Islands.



**Department of Conservation**  
*Te Papa Atawhai*

## CONSERVANCY NEWS BAY OF PLENTY

*from Paul Cashmore*

### **Coastal cresses**

In mid November the conservancy hosted the annual meeting of the Coastal Cress Recovery Group. The first day was spent looking at the local *Rorippa divaricata* sites. The Lake Okataina site was visited and gave the attendees a rare chance to familiarise themselves with this species in its natural habitat. Being spring, plenty of young seedlings were present. In the afternoon the Blue Lake was visited to look at the *Rorippa* plantings there. There was also a quick look at the mistletoe across the road. The second day was spent in the conservancy office dealing with the business end of the meeting.

Since then, a new population of *Lepidium oleraceum* has been discovered on Karewa Island. About 6 plants have been known for many years on the island, but the discovery of this new population, of approximately 30 plants, substantially improves the long-term survival chances of the species on the island. As well as the new discovery, further *Lepidium oleraceum* seeds from the original population have been sown on the island in an attempt to increase the population.

### **Mistletoes**

January and February have been extremely active months for mistletoe work in the conservancy. In the Rotorua Lakes Area DoC contract botanist John Hobbs has been systematically revisiting the many landowners around the Rotorua lakes that have had *Ileostylus* or *Tupeia* recorded on their properties. He is determining if those populations are still present and viable. For many of these landowners this revisit followed previous visits by DoC over the last 5 years.

This project, funded from the

Conservation Awareness Green Package funding, aims to inform landowners of the presence of mistletoe plants and to discuss options for management. While raising the awareness of mistletoes around the Rotorua Lakes communities the project also updates plant location records and assesses changes in population numbers since the properties were last visited. Many new sites have also been found including some new local host species. Generally, feedback from landowners has been very positive. As part of the above project, a full-colour mistletoe fact sheet has been prepared for the Bay of Plenty Conservancy. It explains the species present in the Bay of Plenty Conservancy, their distribution and threats. A copy has been given to all landowners visited during the project. A large part of Whirinaki Forest Park has been surveyed over January in order to gain a better understanding of the distribution and threats to *Peraxilla* spp. Monitoring of existing plants showed many are in poor condition with loss of foliage that doesn't appear to be possum-related. Although over a week was spent surveying large areas of the park only 7 new plants were found. Significantly, plants were found in the Te Hoe area, very close to one of the DoC huts. It appears that the plants are mainly *Peraxilla colensoi* hosting on silver beech. Few plants were flowering strongly when surveyed, therefore it was uncertain exactly how many plants were present, assuming that we had missed non-flowering plants. It appears that much more survey work is required to establish population numbers and trends. Over summer, members of the public and DoC recreation staff also reported a few more plants in response to publicity.

### **Orchids**

The annual survey of the red-bearded orchid (*Calochilus robertsonii*) at the

Rotorua racecourse took place in December. This year 3268 plants were recorded, making it the largest population in 8 years of monitoring and a substantial increase on the 1005 plants recorded in 1999. In addition, this year our monitoring method was “assessed” by Chris Ecroyd from Forest Research. He found another 227 plants immediately after our survey, which was within the margins of error estimated for the survey. This showed that population changes we had recorded over the years were in fact real population changes and not just a result of counting error. This data has been included in a paper on *Calochilus robertsonii* being submitted to an Australian orchid journal.

#### **Water milfoil**

In December, staff resurveyed the recently discovered *Myriophyllum robustum* population in one of the Mamaku plateau lakes. Plants were emergent with flower buds developing. The survey estimated that *M. robustum* covered approximately 80% of this small, predominantly ephemeral lake. The species appears to be thriving with no major threats identified. One other lake nearby was also surveyed, but no *M. robustum* plants were present.

#### **Dactylanthus**

The annual volunteer day was held on 11 February. This year another area of the Oropi Reserve was searched by 16 participants. Efforts were concentrated in the gully systems, but no further plants were found. Volunteers were shown the known population where flowering and monitoring has been underway during January and February.

## WANGANUI

*from Tim Holmes, Rosemary Miller and Graeme La Cock*

#### **Habitat use of small-scaled skink**

A survey in December tried to identify suitable study sites for research on the species. The survey found more than 90 small-scaled skinks and a handful of speckled skinks including new localities for both species.

#### **Striped skink**

Research into the behaviour, activity and thermal requirements of striped skinks has commenced. The investigation compares striped skinks with brown skinks, and there have been some interesting observations of skinks repeatedly climbing and jumping – both species though! This behaviour appears to be more common with striped skinks and more controlled. Striped skinks are also displaying nocturnal activity. We eagerly await the analysis of the data.

#### **Blue duck in Egmont National Park**

The planned transfer of further wild-hatched and captive-raised birds has been postponed owing to poor productivity of both wild and captive populations this season. Survivors from last year's release are still encountered, but the birds had transmitters removed because of weight loss problems so monitoring is much more labour intensive. We plan to refit modified transmitters on birds based on findings from the takahe energetics study (see *Rare Bits*, December 2000). Faecal evidence of blue duck has also been found in a river that has never been surveyed before.

#### **Brown mudfish**

Students have assisted Palmerston North Area staff search for mudfish in the Manawatu. Kirsty Francis from Massey

## CONSERVANCY NEWS

University discovered 5 populations of mudfish and prepared a recovery plan as part of her honours project. More student power has now been contracted to undertake a hunt for giants (giant kokopu).

### ***Short-jawed kokopu***

Where do they go? Two years' data from tagging a population of short-jawed kokopu is being analysed for site fidelity and growth rate. Over that time, a number of fish have not been recaptured, and we were intrigued to find out where they had disappeared to. However, a thorough search 100 m upstream and downstream from the study reach found only 2 tagged fish, so we are no wiser. Analysing growth data is tricky owing to the lack of age data (short-jaws not willing to give up their otoliths) but seems to suggest that once fish reach spawning length, the rate of further growth slows down incredibly.

### ***Olearia gardneri***

That's right, we've found some more! Another 2 plants were found in a patch of forest near Taihape. We also found *Coprosma wallii*, *C. obconica*, *C. virescens*, *C. rubra*, *C. linariifolia*, *Hoberia angustifolia*, *Plagianthus regius*, *Fuchsia perscandens* and *Rumex flexuosus*. *Korthalsella lindsayii* was found too, on 6 different host species.

We have had major progress with *Olearia gardneri* - a thousand seedlings require a home! Yes, we had a great strike rate from seed collected at the Railcorp land site. Thanks to Robyn (Percy's Reserve) and the Taihape horticultural group for this success.

### ***Brachyglottis turneri***

Colin Ogle (retired) and I (Graeme) tried in vain to get to the Sugar Loaf Islands again to check weeds and Cooks scurvy grass. It's obviously not meant to be. Anyway, we checked on the

*Brachyglottis turneri* at Mimi Reserve. Looking good.

### ***Biodiversity projects***

We visited the *Acaena rorida* site as part of a biodiversity project. It's looking pretty good, with plenty of plants around Makirikiri Tarn and down nearby streams. *Hieracium* could be a problem. The contract for the *Celmisia* "Mangaweka" work has also been finalised, so hopefully that will get going soon.

## WELLINGTON

### FLORA

*from Aalbert Rebergen, Tony Silbery, Garry Foster, Dick Gill and John Sawyer*

*Peraxilla colensoi* has been found on the western side of the Tararua Range for the first time. No other records exist of the species occurring west of the main Tararua divide. The plants were found by David Havell (ucol) who has been assisting the area with plant conservation work.

*Korthalsella salicornioides* was found at a number of new locations, including Green Tops (Oterei River, Eastern Wairarapa) on manuka, and several locations at Morrison's Bush, Greytown, on kanuka.

The single and only known Wairarapa *Pimelea tomentosa* could not be found during a site inspection in February and is believed to have died. Three seedlings from last year's seed collection are being grown at Otari.

Wairarapa Area Biodiversity staff and volunteers Trevor Thompson and Chris Hopkins found at least 16 new *Peraxilla tetrapetella* plants in the Eastern Tararua Ranges at Blue Range, Holdsworth Lookout, Gentle Annie, Waiohine Valley and Carrington Creek.

A new population of matagouri has been found as a 'farm weed' in the Eastern-Wairarapa. Aalbert Rebergen found small patches of this regionally threatened plant on a farm at Tora. An estimated 2800 plants in 32 clumps were found, which increased the known Wairarapa population tenfold. The farmer said the species does not appear to spread and only covers small parts of his farm (approx. 1.5 ha). Most plants are less than 1 m tall, the largest occurring in a pine forest. All plants were found in 100 ha close to the Tora coast.

## FAUNA

### ***Mana Island***

Mana Island staff are delighted to report that the Wellington drought has not deterred the brown teal released there in August from realising their fitness. The one previous known breeding attempt in September-October failed, and it was assumed that further attempts were unlikely before the water levels rose again in autumn. However, a brood of 4 ducklings, thought to be about a week old, have just been found, and another female is possibly incubating. Unfortunately, the dry conditions have resulted in the ducklings having an unsavoury upbringing - on the island's sewerage pond!

### ***Mt Bruce***

Five juvenile hihi were released on Tiritiri Matangi on 9 February. All have been seen using the feed stations and are doing well. A second release of 5 juveniles is planned for 14 March, and another further down the track for 3 adults which have started moulting earlier than expected. Unfortunately, the 8-day-old chick we attempted to hand rear died at 18 days. The chick was vigorous and begging, though not gaining as much weight as expected.

Early post mortem results indicate peritonitis and possible toxoplasmosis. Fourteen shore plover chicks were produced this year. One pair produced 3 clutches and other pairs producing nothing. The majority of these juveniles will be released in April.

Four Campbell Island teal ducklings resulted (2 males and 2 females) from the 2 pairs allowed to breed.

The kokako pair have so far laid 2 clutches of infertile eggs and look as though they're trying again. They have a great pair bond - lots of mutual preening and feeding but haven't measured up in the fertility stakes!

The 7 wee tuatara are now 2 months old and are continuing to gain weight each week. They have started climbing the ferns in their enclosure now.

The Mt Bruce wild kaka have produced 9 chicks - the best season yet. Three females still have chicks in their artificial nest sites. At one nest 3 chicks are fledging, but are taking their time about it! All 3 are female. We must have the only kaka population that contain more females than males! Three males (2 from Rainbow Springs and one from Auckland Zoo) will be joining the population soon. They will be housed in quarantine and trained to use the feed stations prior to their release.

The captive pair has produced 3 chicks, which are destined for release too, but meanwhile they are happily destroying the aviary before they leave.

### ***Chatham Islands***

A recent transfer of 15 juvenile shore plover from South East Island to Mangere Island seems to have gone well. Ten individuals are regularly present on Mangere 1 month post-release. The birds were held in a temporary aviary for 2 weeks before being released. One bird died, probably from starvation, while in the aviary. The remains of another

## CONSERVANCY NEWS

released bird were found on adjacent Pitt Island in association with cat sign – suggesting scavenging at least and possibly predation. The fate of the 3 other birds is unknown. No released birds have returned to South East Island. Chatham Island petrels are having a good year. So far 77 chicks have hatched from the 110 known eggs. Only 4 have died. Two were killed by visiting broad-billed prions. The neoprene flaps being trialed to cover the petrel burrow entrances and exclude prions are working well.

Research into Forbes' parakeet genetics and ecology is progressing well. Over 200 birds have now been caught. In addition, a research project, headed by Dan Tompkins of Stirling University, is investigating immune system response to phytohaemagglutinin (a non-toxic substance that 'challenges' the immune system) in relation to inbreeding and hybrid vigour of Forbes' and red-crowned parakeets.

It was only an average year for Chatham Island oystercatchers with 19 chicks fledging from managed areas and 4 from unmanaged areas. The settled weather over the Chathams during the breeding season meant that no nests were lost to storms, however, several chicks died during or soon after hatching, which may be a reflection of the very dry conditions. Predation by cats and weka, and stock trampling were the main causes of failure. Some good video footage was obtained, especially of 1 bird valiantly defending its nest against a small mob of very inquisitive sheep.

### ***Wairarapa***

Large numbers of dwarf galaxias were found in a small Western Aorangi Range stream. The stream itself was concerning because of a large 4-m high concrete weir (built in 1970) that prevents fish passage. Maybe the lack of predatory fish species

has benefited the tiny non-migratory dwarf galaxias in its only known Aorangi site.

Fish surveys in the Aorangi Ranges have almost been completed with another 2 weeks' work during the summer. Short-jawed kokopu was found to be rather common in three streams, including Waitetune Stream, where it was found just above sea-level! Giant kokopu were found in two of the Western Aorangi streams.

## NELSON/MARLBOROUGH

*from Cathy Jones*

### ***Shorebirds***

There are two wetlands in NZ designated within the East Asian Australasian Shorebird Site Network – Miranda and Farewell Spit. The network recently funded a workshop in Melbourne attended by Bruce Postill and Peter Gaze. Discussions about this migratory flyway and birds that use it, highlighted New Zealand's importance for species like red knot, bar-tailed godwit and ruddy turnstone. Northern Hemisphere habitat loss within the flyway emphasises the importance of monitoring numbers of birds reaching our shores.

### ***Other terrestrial vertebrates***

An attempt to compare the abundance of nesting falcon in Marlborough with that recorded by Nick Fox 25 years ago has concerning results – 1 pair compared to 3-5 pairs in other years – but the small sample size and huge study area (300 km<sup>2</sup>) caution against hasty conclusions. The conservancy has since set up an email network with others working on falcon, and perhaps a newsletter may eventuate. Contact Peter Gaze.

The apparent loss of the Mt Stokes mohua has been devastating. Numbers increased spectacularly with stoat control

over the past 10 years, but an unprecedented irruption of ship rats during the winter of 1999 spelt their doom. We need to learn from this experience. A full account is planned for the next issue of *Ecological Management*. Three Mt Stokes mohua continue to survive on Nukuwaiata. They showed all the signs of having bred, but no nest was found and the birds remained elusive after breeding finished. Dry weather has meant water shortages on the islands. Maud staff are manually filling troughs for takahe. Two takahe chicks are doing very well. Water is being boated to Motuara and Long Islands to keep the kiwi, saddlebacks and parakeets going. Twenty yellow-crowned parakeet have been transferred from the Outer Chetwode (Te Kakaho) to Long Island in Queen Charlotte Sound, which has been free of kiore for 4 years. Visits in the near future will determine whether they have remained there.

#### **Threatened plants**

Surveys in the Cobb Valley have rediscovered *Ranunculus ternatifolius*, *Luzula* "Cobb", and possibly *Pterostylis micromega*, with new records of pitpat, *Alepis*, *Peraxilla tetrapetala*, two good populations of *Coprosma obconica* and regional rarities such as *Senecio rufiglandulosus*. Distributions of local endemics, *Gentiana* "Cobb" and *Pimelea* aff. *sericeovillosa*, were mapped. A visit to the Matiri Plateau yielded only around 40 individuals of the indeterminate species *Melicytus* "Matiri", many heavily browsed, confirming that this species is threatened. Moonwort monitoring on Arthur Range continues to teach us about this unusual fern's ecology. Isozyme analysis indicates that our moonwort is distinct from the Northern Hemisphere one. Monitoring of 5 *Scutellaria novae-zelandiae* sites has unfortunately recorded a loss from the type locality.

*Celmisia macmahonii* has been collected from the Sounds and is now being propagated for population enhancement. In South Marlborough *Nassella* tussock workers made the exciting discovery of a second population of *Carmichaelia muritai* at Te Parinui o Whiti. Forty to 50 plants of all age classes were found. Also found by our PNA team were new populations of *Carmichaelia vexillata*, *Euphorbia glauca* and *Urtica linearifolia*. Staff have re-monitored pitpat and *Carex inopinata* and reconfirmed pitpat at Turkey's Nest. Insurance plantings of limestone wheatgrass have flowered and seeded this year.

On a more sober note the Wither Hills Fire on Boxing Day burnt all 300 recently planted *Muehlenbeckia astonii*, but the plants are tenacious. Despite being in the ground for only a few months, some are showing signs of regrowth when watered by a couple of concerned individuals!

#### **Freshwater**

In Molesworth, Tarnedale bullies were found in all tarns known to it. Samples were collected for Richard Allibone to complete taxonomic work on the species.

Year three of the short-jawed kokopu survey in north-west Nelson is again producing new populations, some in large rivers nearly 20 m wide. The future of the species looks robust. About 40 new populations have been discovered in the conservancy during the 3-year survey, with more likely as this summer's work progresses. Populations of giant kokopu have also been discovered. Excellent co-operation of local landowners has helped facilitate the survey.

The *Gambusia* (mosquitofish) pestfish survey undertaken in the Motueka/

## CONSERVANCY NEWS

Nelson area is nearing completion. Our team has covered 180 dams and sections of 41 waterways to date. A total of 17 ponds have been located which contain *Gambusia*. The feasibility of eradication is being considered.

### ***Invertebrates***

In the Sounds, 86 flax weevil (*Anagotus fairburni*) and 92 Cook Strait giant weta (*Deinacrida rugosa*) have been moved from Maud Island to Titi Island, free of Norway rats since the mid 70s. Only 40 started the original population on Maud in 1977, and now they occur over 200 ha of the island.

In South Marlborough, recent surveys have found large numbers of speargrass weevil *Lyperobius buttoni*. Unfortunately, similar surveys have not been so successful in locating *Lyperobius carinatus*.

## WEST COAST

*from Paul van Klink, Chris Rickard*

### ***Haast tokoeka***

Breeding success of Haast tokoeka has been studied for several years by the monitoring of 13 nests. Three chicks have been observed over this time but subsequently were never seen again (usual story). The last nest for this season at 1200 m altitude had a video camera operating via UHF link to Okuru 17 km away. A stoat has been observed on video on one occasion at the nest. When the chick was seen leaving the nest, staff prepared themselves to catch it the following night and attach a transmitter. Biodiversity Strategy funds will allow predator control to be undertaken over 16,000 ha next breeding season. The contract for establishing the predator control lines has been let and control will be in operation by 30 June 2001.

### ***Rowi in-situ management***

It has been a busy few months for the rowi team. The focus has been on the expansion of the rowi protection programme as outlined in *Rare Bits* 39. The team includes new appointments, and we welcome Sid Marsh, Irene Petrove and Susan Anderson to our permanent team. Our numbers have also been boosted with the employment of the summer biodiversity staff Simon Stevenson, Verity Harrison and Karen Mayhew. With this amount of staff it is pretty amazing just how much work can be achieved in a short time.

The extra work planned for the year, as part of the kiwi zone funding, is well under way. Approximately 8 of the required 20 new pairs of kiwi have been caught, and 16 rodent index lines installed. Rimu seedfall is being monitored, and the track system for the stoat control project is under construction. The stoat control project will be fully operational by the first week in June in readiness for the upcoming breeding season. It is hoped that the extra kiwi being caught at the moment will boost the number of chicks monitored each year to 30 plus.

The breeding season is now over. It has been a bumper season for rowi with a total of 38 eggs detected and 21 chicks successfully transferred to Motuara Island. Fourteen Operation Nest Egg (ONE) juveniles returned from Motuara during October and December. One of these died within a week or so of transfer from unknown causes, however, the remaining 13 are alive and thriving in the wild.

The biggest single event of recent times on the rowi programme is probably the first breeding attempt by an ONE bird in Okarito. Inka, a 4-year-old male, has paired with a wild female and successfully produced a chick. This is a



great milestone for the project and all bodes well with 30 other younger ONE birds in the forest already and 20 or so more to follow.

## OTAGO

*from John Barkla & Bruce McKinlay*

### ***Pisa Flats protection***

At long last, the dry outwash gravel terraces of Pisa Flats have been protected as a Conservation Area. It has one of the highest concentrations of endemic and rare species per area in New Zealand. There are unnamed species of *Leptinella*, *Craspedia* and *Galium* (to mention just a few) and a saline area with a range of salt-tolerant herbs and important invertebrate values. Its special features were celebrated in a recent public open day, one of three such days organised by Central Otago Area Rural Advocate David McKay.

### ***Upper Taieri Wetland***

Further survey of the reserves and covenants along the Taieri River scroll plain has exposed more threatened plants. In the upper part of the wetland, Conservancy and Central Otago Area staff discovered new populations of the sedge *Carex tenuiculmis* and grass *Deschampsia cespitosa*.

### ***Hebe cupressoides***

Neill Simpson has begun a contract to establish monitoring at selected sites throughout the range of *Hebe cupressoides* and to review and report on monitoring already underway. Having tagged plants will enable us to assess population and health trends with more precision. New sites continue to be found, the latest being Dunstan Creek in Central Otago.

### ***Threatened small-leaved Olearia***

Geoff Walls is busy on contract assessing many of our threatened *Olearia* sites in

order to help the recovery group determine priority sites for management. Most attention is on *Olearia hectorii* and *O. fimbriata* in the Wanaka Area and *Olearia hectorii*, *O. fimbriata* and *O. fragrantissima* in Coastal Otago Area.

### ***Pittosporum patulum***

Wanaka Area staff re-monitored three sites in the Dingleburn in January. All sites have been impacted by possums. About 25% of plants at the largest site show browsing ranging from minor to heavy. There was no evidence that plants had flowered this year.

### ***Mobua***

Trap lines for stoats in the Makarora Valley continue to catch stoats. Recently numbers are dropping off, and the rate of rat captures is increasing slightly. This work is a joint operation with the Upper Clutha Branch of Forest and Bird, which has developed a sponsorship package. For \$50 individuals can purchase a tunnel and trap for inclusion in the line. Stoat numbers in the Dart remain high, but rat numbers are decreasing.

### ***Lake Wakatipu Islands***

Dawn Palmer recently renewed traps on the islands in Lake Wakatipu. A subsequent check showed that 5 stoats had been caught.

### ***Bats***

Wakatipu Area staff have completed the fieldwork side of a bat distribution survey in the lower Dart Valley and also remonitored transects along forest edges and road lines in the Glenorchy area.

### ***Grasshoppers***

Mike Tubbs has recently been visited by Peter Johns and Simon Morris who were following up *Sigaus* records around Alexandra. The key site for *Sigaus childi* is around a power pylon on the Clutha River flood plain. This was inundated during the November 1999 floods, but

## CONSERVANCY NEWS

*Sigaus* grasshoppers are still present though in less numbers since the flood.

### **Blue penguins**

As most of you will have seen in the media there was a recent dramatic event in Oamaru with 2 dogs killing large numbers of blue penguins. As a result of prompt action by the Council, the dogs were apprehended and the owner traced. The owner has recently admitted liability in court and been sentenced to 75 hours community service and fined \$300. This event shows that even with the best sign-posting available irresponsible dog-owners and their dogs are still a threat to ground-nesting birds.

### **Tenure review**

So far this summer two properties have been inspected one near Wanaka and the other at Danseys Pass. Both areas had a range of interesting values both floral and faunal. Our high-country tenure team awaits our reports with baited breath.

## SOUTHLAND

*from Brian Rance*

### **Southern Islands Area**

Campbell Island teal: So far 5 nests, 13 eggs, 8 hatched (2 still incubated), 4 ducklings surviving - near fledging. It has been a very drawn-out breeding season this year.

### **Muribiku Area**

The critically endangered, small, soft sedge *Carex inopinata* has been discovered on the south-eastern slopes of the Blue Mountains, near Tapanui. The site was in shrubland on the edge of a stand of mixed hardwood forest in a gully. This site is the third currently known site for this plant, so is considered a very important discovery.

*Powelliphanta* snail monitoring: Monitoring plots of long-term population

trend have been established at the first of a few sites (Mt Bee). It is intended that other sites will be established and monitored, in a revolving programme. Also mark and recapture work is possible at this site because of the association with *Astelia nervosa*.

Lizard surveys: Hana Edward and Tony Jewel have been following up lizard records in Murihiku Area. Of greatest note was the resurvey of the Takitimu gecko site, 6 individuals were recorded (3 caught and 3 spotlighted). Three of these were new animals. Unfortunately no additional sites were located.

Whitebait spawning survey: A whitebait spawning survey was undertaken by area staff with the assistance of Pete Ravenscroft (Coastal Otago Area) and iwi. One spawning site was found near Fortrose.

Te Anau Area: A survey for rare plants has occurred in the upper Mararoa Valley. Five threatened species were recorded (*Deschampsia caespitosa*, *Carex tenuiculmis*, *Ranunculus ternatifolius*, *Isolepis basilaris* and *Carex capillaris*). This improves our knowledge of the distribution of these species.

Technical Support: The national biodiversity-funded *Olearia* project is underway. We await the results of this project designed to survey and assess priority sites for 5 threatened *Olearia* species. This information will allow sites to be prioritised for management.

## OTHER BITS

### ISLAND ROUNDUP

*from Ian McFadden*

#### ***Hauturu (Little Barrier Island)***

This project is still in the consultation and planning phases.

#### ***Tuhua (Mayor Island)***

In August last year, 2 applications of Talon 20 P were aerial broadcast to eradicate Norway and Pacific rats. It was anticipated that cats would die from secondary poisoning after eating dead or dying rats full of bait. A sample of cats were radio-tagged prior to the drop. Some indication of home range was determined from those cats, but the severe topography of Tuhua made telemetry difficult. Of greater benefit was the ability to recover dead cats post drop, and 5 dead cats were found during the weeks following the drop. Autopsy by a veterinary pathologist determined 3 had all the clinical signs of anticoagulant poisoning. The other two showed none of those signs but did have a type of emphysema. We will have to wait for the liver assay results to confirm cause of death.

Rat tracking tunnels were in place before the drop, and since the drop there has been no evidence of rats. This is a very good sign. As a follow up Scott Theobald has visited twice. In October the entire island was searched by the cat dog. Only old cat droppings were found. In January both his cat dog and a rat dog went to the island, when sign of neither was detected. Following that visit cat trapping was carried out from 1 to 19 February. One hundred and twenty seven Victor 1.5 soft catch traps were set at about 250-m intervals along the main walking tracks and across the tholoid. They were baited with fish or barracuda on alternative days. No animals were caught, there was no trap interference, or any suggestion that cats remain.

A further trip with the dogs is intended for November. Meantime the tracking tunnels will be maintained. Looks good.

#### ***Campbell Island***

By anyone's standards this is a big one. Planning is ticking along very nicely. If all goes according to plan bait will be loaded onto the boat at Timaru in late June. After 3 days of absolute misery (I am not a good sailor) the island will loom out of the grey clag and shortly after we will begin to fly (Hannibal Hayes in his B2 Squirrel) the bait ashore and into storage. Upon the arrival of three Jet Rangers we will all sit about waiting for fine weather. Shouldn't take too long.

We need the equivalent of about 5 fine days. We expect to get only parts of some days, so are prepared to wait as long as the end of September. Sounds a bit vague, but winter is often more settled down there, plus it is a bit colder then so bait lasts longer before turning mouldy. The plan is to fly the bait on at 3 kg/ha with a 50% overlap resulting in a nominal application rate of 5 kg/ha. Bait trials carried out 2 years ago on Campbell, and about 7 years ago on Kapiti, with an application rate of 5 kg/ha suggested this will be ample to eradicate Norway rats. The cliffs and shoreline will receive two doses. The contingency for overlap at the interface between the area treated one day and commencement the next fine day is an overlap of several swath widths. The longer we have to wait for the next fine day the greater the overlap. We require about 80 tonne of bait to cover the whole island once, but will take 120 tonnes.

It has been confirmed that cats have died out, which simplifies the project, despite the result from Tuhua.

#### ***Raoul Island***

Rat eradication is in its preliminary planning state. The encouraging result

## OTHER BITS

from Tuhua provides that little bit more confidence in our methodology. Raoul has the same suite of pests as Tuhua so we plan to use exactly the same application rate and follow through for the cats. However, there will be some considerable logistical issues because Raoul is twice the size (at a little over 3000 ha). Campbell Island should provide the solution to most of those problems.

After all of the above projects we are re-evaluating some of the close inshore islands, particularly in Fiordland, and main Auckland Island, which has pigs, mice and cats. We already have an operational plan for the pigs. The cats might take a bit longer.

## ECOLOGICAL MANAGEMENT JOURNAL

The next edition of *Ecological Management* will be published early next financial year. Copy deadline for contributions is 29 June 2001. Queries and contributions (two copies) should be addressed to:

The Editor  
Ecological Management  
Biodiversity Recovery Unit  
Department of Conservation  
PO Box 10-420, Wellington

*Rare Bits* is issued four times a year by the Biodiversity Recovery Unit (BRU), Department of Conservation, Wellington.

Copy deadline for the next issue is **18 May 2001**.

Articles about threatened species management issues are welcome from anyone. Send them to the Editor, *Rare Bits*, BRU, Department of Conservation, PO Box 10-420, Wellington, in Word, on a floppy disk, or as an Email attachment (internet mail: [smoconnor@doc.govt.nz](mailto:smoconnor@doc.govt.nz)).

Please follow these word limits: Conservancy News 800 words, Restoration Resumé 500 words, Island Roundup 1000 words, Other Bits 900 words, Feature Article 800 words.

Articles should be clean (ie, free of any formatting) and any graphs or figures should be saved as TIF files.

DoC staff can access *Rare Bits* through the S&R publications icon on the Intranet. *Rare Bits* can also be accessed through the department's website - [www.doc.govt.nz](http://www.doc.govt.nz) on the Internet.