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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.

FEATURE ARTICLE

From Tim Shaw, Blue Duck Recovery Group Leader

Whio (blue duck) – the 10 ³/₄ hour

In October 2002 the World Conservation Union upgraded the conservation status of whio from Vulnerable to Endangered, while the Department of Conservation ranks whio as Nationally Endangered. The Blue Duck Recovery Group predicts that if the present rate of decline in whio populations is not addressed, the species will be functionally extinct from much of its present range within the next 10 years. We therefore find ourselves in almost the 11th hour for yet another unique taonga.

These statements on the worsening situation for whio are based on many strands of information that have come together to collectively ring the alarm bells. Through the 1990's several populations were monitored, with the vast majority showing systematic decline, while the best that any of them did was to hold their own. Anecdotal and survey evidence through the same period indicates that whio are missing from vast tracts of country in which they were once relatively common. On

top of this, a closer look at remaining whio populations shows they are invariably in poor health, highly fragmented and mainly comprised of lonely adult males.

So what is behind this decline? Research in Fiordland over the last three years identified stoats preying on nesting females, chicks and eggs, as the greatest threat to the species. Other projects are also now being established to test if this is the case throughout a range of habitats. At the same time, research is being undertaken to establish how to best protect whio on the nest so they can breed safely and their populations recover.

Meanwhile, projects aimed at controlling predators to protect whio are already underway in several sites. These include the Clinton, Arthur, Cleddau and Murchison catchments in Fiordland; the Oparara and Flora catchments of Kahurangi; the Tewaiiti in Te Urewera; the Takapotahi in the Motu catchment; in the Egmont national park and on the Manganui a-Te-Ao.

Assuming we have got it right regarding the effects of stoats, and that we can develop and maintain the means to manage predators and whio populations to boost their recovery, then 80-100 pairs could eventually be protected at these

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sites. This is a good start, but not enough given the Recovery Group's prediction that the bulk of unmanaged populations will be lost in the short to medium term. It is clear that more still needs to be done at additional sites to secure this species from extinction.

A workshop hosted by the Blue Duck Recovery Group last year determined that a minimum of 30 pairs need to be protected in each of eight broad geographical regions for that to happen. These include the Northern Ruahine area, northern Ruapehu, northern Te Urewera, Motu Catchment, Kahurangi, central Westland, south Westland and Fiordland. This gives a total of 240 secure pairs in a representative geographic range as a bottom line for the species. The Recovery Group also strongly supports any initiatives to protect whio outside of these 240 pairs.

In terms of what should be done at each site to protect whio, we are in the all-to-familiar situation of not knowing the answer, but unfortunately not having the luxury of time to wait before starting work. We do however have a good steer on what the problem is, and should aim to learn as we go by employing and testing maximum stoat control regimes and monitoring the response of whio.

The protection of whio habitat is needed for the long term survival of this species, and Conservancies and Areas are asked to consider what could be done locally. For instance, it might be possible to extend habitats in areas already populated by whio, or create new habitats where they once existed but could be reintroduced. Perhaps an enthusiastic community group could be encouraged to start up a whio protection project? Sponsorship or funding from community trusts or similar charitable organisations could be sought to support or establish projects.

We need to accomplish what we can within existing resources and current work, while at the same time looking for new opportunities for achieving whio protection. Please give some thought to what opportunities exist in your area and talk it over with your local representative on the Blue Duck Recovery Group as listed below.

Sadly, management to address the decline of many whio populations has been left too late, and the birds are already gone. We must act now before any more ground is lost. A concerted research effort by management will turn the clock back and ensure the chances of encountering whio on New Zealand's wild rivers.

Name	Base	Region Responsibility
Andy Glaser	Opotiki AO	East Coast/ Hawkes Bay, BOP
John Lyall	Hokitika CO	West Coast ,Canterbury
Nick Peet	Wanganui CO	Wanganui, Wellington
Peter Russell	Ducks Unlimited	All Captive holders
Tim Shaw	Motueka AO	Nelson/Marlborough
Nic Etheridge	Tongariro/Taupo CO	Tongariro/Taupo, Waikato
Murray Willans	Te Anau AO	Otago, Southland
Murray Williams	S & R	Scientific advisor

CONSERVANCY NEWS

NORTHLAND

From Lisa Forester

This year a small success can be claimed for the world's rarest tree on the Three Kings Islands. Botanists visiting the islands to remeasure permanent plots established in 1946 discovered that two of the seeds planted last year from fruit harvested from the single remaining wild *Pennantia baylisiana* tree had germinated. Unfortunately one of the tiny seedlings had died, so was collected and confirmed as *P. baylisiana* at Auckland Herbarium. The other seedling was looking unhealthy, so was given some water in the hope that it would survive. Whilst this is not exactly ground breaking work, it is significant in that it shows that it may be possible to get the plant growing from seed on the island without having to resort to the risky step of bringing in plants and soil grown on the mainland.

AUCKLAND

From Thelma Wilson, Bec Stanley and Rosalie Stamp

Kakabeak

Vegetation and weed control to allow daylight and reduce competition from kakabeak seedlings

on Moturemu has just been completed. While the transplanted kakabeak did not survive, it has been heartening to see seedlings come up from the island seed bank for a second year, and some of last years seedlings are still growing. Local whanau from Puatahi Marae have expressed support for the programme, but were not able to visit the island as planned this season. We're still working on a more suitable time to visit the site.

Kawau Island

A very honest and upset dog owner on Kawau Island has gone public about the fact that her dog killed a kiwi while walking home with her one night. The owner has made an impassioned plea, via the island press, to other island locals to keep their dogs confined or on leads at all times. DOC manages approximately 10% of the land on Kawau, with the majority being in private ownership. The island supports a good North Island brown kiwi population, North Island weka, and a few brown teal, so encouraging the island residents to actively protect their feathered locals is a priority for the Department.

Dactylanthus

On Great Barrier Island (GBI) we have no known sites of *Dactylanthus* but tantalising reports from the locals that it does grow there. We were lucky enough to be able to borrow Graeme Atkins from ECHB Conservancy for a week, who along with his dog Mohiti, helped us scour parts of the northern bush on GBI. We didn't find any *Dactylanthus*, but

Graeme did hold the floor at a public meeting aimed at demonstrating how to look inside pigs' stomachs as an alternative survey tool. Bec and some keen locals embarked on a more traditional walk-through survey in the southern half of the island a few weeks later, but again no *Dactylanthus*. *Dactylanthus* pollen has been found in upper surface layers of the swamps on the island and locals continue to supply us with titbits of information, so hopes remain high for a future find.

***Lepidium* spp.**

We've also been out re-surveying coastal cress (*Lepidium oleraceum*) sites in the northern Mokohinau Islands. All our records of cress are 10 years or older, so it was time to re-check them. Six individual plants were found on only one stack. Rat eradication some years ago has left the islands predator-free and now honeycombed with bird burrows.

Our translocated population of coastal shore-cress (*Lepidium flexicaule*) on Rangitoto has been revisited too. This cress, last seen on Rangitoto 100 years ago, was first returned to the island in 1999. All these plants died, though some flowered, seeded, and seedlings grew. Three individuals from another transfer in 2002 are still alive and have flowered. Dense weed infestations seem to hamper establishment of the coastal shore-cress on the island. The translocation is now entering a re-assessment phase, during which the Conservancy will consider whether it is feasible to continue to try and establish a population of this cress

on Rangitoto, or whether Auckland's weedy flora will win out.

Centipeda minima

A surprise find was encountered during a routine RMA application assessment. A new population of the tiny Nationally Critical herb *Centipeda minima* was located at Te Arai. This wetland herb has not been found on the Auckland mainland for sometime. The herb grows on clay or peat at the edges of lakes, ponds and streams. This new site is on the edge of Little Shag Lake, a privately owned lake north of Auckland. We now have four current sites for this herb in Auckland: Te Arai, Kawau Island, Little Barrier and Great Barrier Islands.

Tiritiri Matangi Island

In April, Tim Lovegrove successfully transferred 40 popokatea (whiteheads) from Tiritiri Matangi to the Hunua kokako management block. The birds were extremely easy to catch and will be monitored by Auckland Regional Council staff.

Three unbanded matata (fernbirds) have been seen on Tiritiri Matangi, indicating breeding of the birds released in 2001.

Recently released pateke on Tiritiri Matangi appear to be doing well, with ducklings being produced and wife swapping occurring regularly.

WAIKATO

From Andrea Brandon, Leigh Marshall, Phil Bradfield and Dave Bell

Hebe speciosa

Annual monitoring of the Taranaki Point *Hebe speciosa* population has been carried out. The population has been steadily increasing since monitoring began in 1999, when 41 individuals were found. In the latest survey, 388 plants were counted. All plants were in extremely good condition, with only one individual showing some sign of browse. Possum control and fencing out stock by the landowner are thought to be the main factors that have contributed to this increase.

Amphibromus fluitans

The Nationally Endangered water brome *A. fluitans* has been rediscovered in the Waihora Lagoon in Pureora Forest Park. This species was last seen several years ago and despite there being no sign of it during surveys over the last couple of years, the population has sprung to life again. The lagoon is virtually dry and monitoring has been set up to assess both short and long term population trends.

Lepidium oleraceum

Three-monthly monitoring of the Matariki Island population of nau continued last month. The population appears to have stabilised again after suffering a net loss

detected on the previous visit. Both insect damage and white rust infection are present at low levels, and plants appear to be in good condition. Weeds are an ongoing problem and probably the greatest threat to this population.

Kokako

Last winter 17 kokako pairs were monitored during an aerial 1080 carrot bait operation at Mangatutu. All pairs survived the operation.

The 2002 spring census of kokako at Mapara found a healthy 40 pairs, an increase of 10 pairs in the six months following the post-breeding census. This followed the first pulse of pest control in four years, an exciting result and a great example of the success of pulse management.

Meanwhile, the four-yearly survey of kokako at Waipapa this autumn has found 40 pairs, compared to the 16 pairs in 1999. Further testament to the benefit of pest control!

Archey's frog

After discovering a concerning number of rodent-predated frogs, Maniapoto Area Office is beginning rat control in parts of Whareorino Forest to protect Archey's frog.

Kiwi

The Moehau Kiwi Sanctuary is still topping the kiwi competitions with 100% known survival rate from predation with this year's 18 chicks. Precise up to date predator catch data is currently unavailable but all indications are that the numbers of

predators being caught are similar to previous years.

Maniapoto and Waikato Area offices are combining forces to survey the southern Waikato for the last remaining King Country kiwi. It is likely that any kiwi remaining will be captured and transferred temporarily to captivity until a suitable predator controlled Waikato site is ready for their release.

Tuatara

The first captive bred Stanley Island tuatara have been released back to their island. All adults remaining on the island were caught and transferred to captivity while rats and other nasties were eradicated from the island. Ten juveniles have now been returned to the rodent-free island and another four will be returned in spring. The adults will be retained in captivity for "head-starting" the population until the island population has increased.

BAY OF PLENTY

*From Paul Cashmore and
Keith Owen*

Rorippa divaricata

Monitoring of the *Rorippa* site in Ottawa Scenic Reserve near Te Puke was undertaken in May. This is the only site in the Conservancy outside of the Rotorua lakes populations. Searching revealed one adult plant with flowers and seed present. At least 50 very small seedlings were

also noted clustered in two clumps nearby. This is a similar number of adult plants to that seen during the last monitoring in 2001, it therefore appears that a small population is surviving in this clearing.

Dactylanthus

Monitoring of flowering and some further caging has been undertaken over the past few months at our monitored *Dactylanthus* sites: on Mamakus, Te Kopia, Oropi and Waione.

At Oropi (near Tauranga) flowering improved from last season. Volunteers and staff discovered a total of 37 new plants during several visits and added 24 new cages.

At Waione (in Whirinaki) extensive trapping and poisoning was undertaken in the vicinity of the *Dactylanthus* population during flowering. Possum damage was still noted, but probably happened before and after control occurred. Twenty nine new cages were added this year. A new population was discovered by Vern Comer (who undertook the possum control) about 2km from the existing population. Staff searched the site and found 13 plants which will be caged.

Flowering appeared to be generally pretty good at our sites on Mamakus and at Te Kopia (Paeroa Range). A low level of rat damage was present and appeared to be quite localised at Te Kopia. Several cages were added. Up to six new young *Dactylanthus* plants were noted inside cages at the Mamaku site.

Ophioglossum petiolatum
(stalked adders tongue fern)

The *Ophioglossum petiolatum* population in Whirinaki was checked in late January/February when plants were most obvious. The population appears to be small and localised, and is mixed in with a much larger population of *O. cortaceum*. Trampling and browsing are probably the biggest threats. Feral deer frequent the turf areas where the plant occurs, so several small cages were placed over plants as a trial to reduce any trampling or grazing effects.

Kokako

Kokako had another productive breeding season in Kaharoa Forest and the adjacent Onaia Ecological Area, north of Rotorua, due mainly to the dedicated work of over 100 members of the Kaharoa Kokako Trust. Over 100 birds are now resident, compared to just 24 birds six years ago when the Trust started supporting the DOC management efforts. To celebrate the Trust's success, the Minister of Conservation opened a purpose built shelter with interpretation panels at the reserve on the 24th May 2003, with about 150 locals and visitors in attendance.

TONGARIRO/TAUPO

From Nicolas Singers and Nic Etheridge

The Volcanic Plateau forget-me-not

The Volcanic Plateau forget-me-not (*Myosotis* aff. *pygmaea*; CHR 244566; "Volcanic Plateau") is a small central North Island endemic forget-me-not. It is Nationally Endangered and has only been recorded in a handful of places in the Moawhango, north Ruahine and Kaimanawa Ranges. Previously a volunteer (Sofia Lund) researching the vegetation of the Kaimanawa Mountains had discovered a small myosotis in the Waipakihi valley, but did not properly identify it. On the first day of a subsequent visit to the Waipakihi Valley, a small area of river flat and red tussock grassland was systematically searched. Once the habitat was identified the plant became fairly predictable to find on the second day during the walk out of the valley, when briefly searching likely spots. This survey resulted in the discovery of five sites, with 60 plants counted in the largest group. The optimum habitat appears to be small depressions in red tussock grassland, often immediately below a river terrace riser on the lower river terrace. It is likely that many more groups of plants occur in the valley, which suggests that it is not as rare as previously thought. Unfortunately two of the small depressions were heavily infested by *Heiracium pilosella*, so it may be under immediate threat.

Rangitaiki Conservation Area wetland

During a visit to the Rangitaiki Conservation Area wetland, *Hypericum* aff. *japonicum* (a.) (CHR 165889; Volcanic Plateau) was discovered growing commonly at a temporary wetland, side by side with the common *Hypericum japonicum*. At the time, this wetland was very dry due to the drought conditions, and most wetland plants were suffering. Several plants were collected to be grown on for identification purposes, which unfortunately have not yet flowered. However, one plant appears to be *Centipedia minima* subsp. *minima* (Nationally Critical), which is assumed to be extinct in Tongariro Taupo Conservancy. The other may be *Isolepis basilaris* (Serious Decline), which has not previously been recorded here. Fingers crossed for these discoveries!!

Whio

Regular monitoring of the Tongariro, Whakapapa, Okupata/Mangatepopo confluence, Makatote and Manganui-a-te-ao rivers was undertaken in December and January of 2002/03. The preliminary results are outlined below.

River	Territorial Pairs	Pairs/km	Pairs with chicks	Nos. of chicks	Singles
Tongariro	4	0.31	1	4	1
Whakapapa	7	1	3	9	2
Okupata	4	1.3	4	9	2
Manganui-a-te-ao	4	1.05	3	5	2
Makatote	3	6.6	1.75	3.5	1

This monitoring lacks specific detail about individuals; however it indicates a relatively stable

population when compared to previous years. A male/male pair was observed on the Whakapapa, and they have even tried to nest!

A Central Plateau Blue Duck Conservation Strategy (guided by the recovery group) is in the final stages of completion. Its key objectives are to secure key populations, monitor changes in blue duck populations, establish a new blue duck population and work with local communities. The formation of the Central North Island Blue Duck Charitable Trust is a major step forward in helping achieve the objectives.

Central North Island Blue Duck Charitable Trust

The CNIBDCT origins go back to 1992, to the beginning of a consultative process to renew resource consents to continue operating the Tongariro Power Development (TPD). After eight years of investigation, consultation and negotiation, on 20th November 2000 the Department of Conservation, Genesis Power Ltd and the Royal Forest & Bird Protection Society Inc. entered into a formal agreement to establish a Trust. Its purpose would be to provide ongoing operations to enhance, protect and promote blue duck populations and habitat. This agreement formed an important part of a mitigation package to offset the adverse effects of the TPD on blue duck and their habitat. That mitigation package consists of \$1.5 million allocated over the next 10-20 years.

The Trust's primary objective is to create new self-sustaining blue duck

populations in appropriate locations - not necessarily limited to the TPD region. Ancillary objectives are to enhance existing blue duck populations; priority aquatic indigenous ecosystems and priority threatened species within catchments affected by the TPD.

Five founding Trustees have been appointed: four by the three nominating organisations set out in the Deed; Bill Carlin (DOC), Paul Green (DOC), Tracy Hickman (Genesis) and Keith Chapple (Forest & Bird). In accordance with its Deed, these four Trustees appointed an independent scientist, Colin Ogle, as the fifth Trustee.

The Trust sought advice from the blue duck recovery group to identify projects that meet its objectives and was presented with an assessment of blue duck conservation priorities. The two projects approved are a predator control pilot study on the Manganui-a-te-ao in the Central North Island, and secondly, to establish a new blue duck population on Mount Taranaki in the Egmont National Park.

From the Kiwi Team

Tongariro Forest Kiwi Sanctuary

The 2002/03 breeding season started well with the hatching of Rainbow, our first 2nd generation chick from Te Aukaha and Koha, an Operation Nest Egg pair. Sadly, Rainbow died at Warrenheip. However, Rainbow's sibling, Putiputi, was released into Tongariro forest on the 31/3/03, and was last caught on 12/5/03. What we

thought was our final egg for the season was taken to Rainbow Springs on the 7/5/03. We named the chick Possum, a fitting name as another nest due to be robbed on the same day was predated by a suspected possum! We assumed that the single egg that Doug, the male kiwi, was incubating was the fifth and final egg for this season for him and his partner (Lass). To our surprise Lass was found a week later, simultaneously incubating a sixth egg at another nest site. This is our first record of a female North Island brown kiwi incubating an egg independently of the male.

From our 10 monitored breeding pairs, 30 fertile eggs were taken to the wonderful crew at Rainbow Springs. Twenty two hatched successfully at Rainbow, with two chicks still at Rainbow under surveillance. We have had a few cracked eggs this year, kicked by the male during robbing; this is something we are going to address for next season. After hatching, the kiwi chicks were all taken to Warrenheip, a 14 ha privately owned predator-free enclosure near Cambridge. Two Tongariro kiwi chicks died at Warrenheip: one due to poor health and the other drowned. The death due to poor health have taught us that the capacity of the Warrenheip site for kiwi chicks is less than one bird per hectare, at least in the dry summer months. The kiwi chicks are released into Tongariro Forest when they are around 1200 grams in weight. To date, eight have returned to the forest, one of these was predated by a stoat. The others are doing well and gaining weight.

Last season we monitored 14 kiwi chicks. This work was to measure chick survival in the wild after a very effective 21,000 ha aerial 1080 operation. Eight chicks successfully hatched in the wild: four were predated by stoats, one dropped its transmitter at 1370 g and three are still being monitored. Six eggs were taken to Rainbow due to nest abandonment and were hatched successfully. The new chicks were then released back into their parental territory in Tongariro forest. Three were predated by stoats, one died of hypothermia and two are still alive.

We currently have 39 birds with transmitters: 13 adult male, 14 adult female, five sub adults, and seven juveniles. We are planning to capture another two or three adult males this year to increase our breeding sample size. We are currently discussing the merits of keeping transmitters on our single adult females.

EAST COAST/HAWKE'S BAY

*From Wendy Sullivan,
Jonathan Miles, Riki
Winitana, Tame Te Kurapa
and Andrew Glaser*

North Island Robin- Boundary Stream Mainland Island

April saw the fifth anniversary of a 28 robin release into the mainland island. Twelve of these birds were

female, of which only five went on to breed. Using a mark-recapture monitoring program, we estimate the current population to be 50-60 birds. Several of the original birds are still being sighted, making them six years old. While the bulk of the population remains within 1-2 kilometres from the release sites, some birds have dispersed throughout the reserve.

Lake Waikaremoana kiwi call survey and dispersal

In May we conducted the second consecutive kiwi call survey of the Puketukutuku Peninsula. Stoat control has been undertaken for eight years.

The call rate on Puketukutuku has increased from 1.52 calls/hr in 2002 to 2.35 calls per hour in 2003. In 2002, 21 kiwi were heard calling, 13 of which were radio tagged. In 2003, 31 kiwi were heard calling, of which 12 were radio tagged. Population estimates indicate the number of calling kiwi on Puketukutuku in 2002 and 2003 were 34 and 44 respectively.

The ability of juvenile kiwi to disperse over a considerable distance can limit the effectiveness of our conservation efforts. We have kept track of a proportion of wandering juveniles with the help of some Kiwi Recovery Trust funding.

Of the juveniles monitored, two were tracked eight kilometres from Puketukutuku and both have subsequently walked back. One kiwi was found due to its mortality signal, the transmitter was found on the ground. Another kiwi was located 10 kilometres away from its start point,

and we subsequently lost this bird. Two other mortality signals have been picked up, one 16 kilometres away from Puketukutuku. The rest (five) have disappeared.

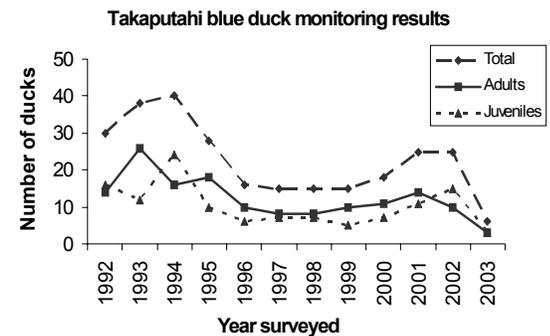
The erection of a fence funded by Bank of New Zealand Kiwi Recovery Trust and the Sanderson Trust at Lake Waikaremoana is about to be embarked on. This fence is to inhibit juvenile kiwi leaving the Peninsula. We anticipate that this will result in a greater number of breeding pairs producing more chicks. When carrying capacity is reached the fence will be relocated to the adjacent Whareama Peninsula and predator control started. Juvenile kiwi will then be cropped from Puketukutuku and put on Whareama. It is hoped that in 30 years time the hills of Lake Waikaremoana between these two peninsulas will be full of kiwi again.

Whoio monitoring results- Opotiki Area

Blue duck monitoring continued in the Opotiki Area at the two national monitoring sites: the Takaputahi in the Motu catchment, and the Te Waiiti River in the Te Urewera National Park. The Takaputahi population has been monitored for the past twelve years and without predator management up until last year. In comparison, the Te Waiiti population has been monitored for the past four years and has had predator management associated with the Te Urewera mainland island. The Takaputahi represents a population within a modified catchment system but with intact riparian area, and the Te Waiiti an un-modified North Island podocarp

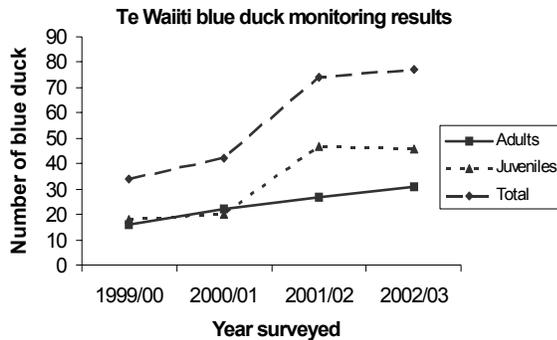
forested river system. These two river systems have had very contrasting results over the period of monitoring.

Over the past twelve years the Takaputahi whoio population has steadily declined. In 1993 a total of 36 whoio were counted within 26 kilometres of river. The 2003 survey found only seven birds within the same survey area. Only one of 21 adults banded over a five year period remains, and there has been a 91% reduction of territorial pairs over the past ten years. The recruitment of juveniles has also been poor, with only two out of 26 fledglings returning to their natal river. The cause for this decline is suspected to be predation.



The predator controlled Te Waiiti whoio population is trending in the opposite direction. In 1999/00, 34 birds were found in 18 kilometres of river: 8 pairs and 18 juveniles. This season (2002/03) a total of 77 whoio were encountered in the same sample area: 15 pairs, one single and 46 juveniles. In the past four years territory size has decreased from to 2.25 to 1.2 kilometres per pair. Fledgling success has increased by 155% since 1999. Juvenile recruitment into their natal river has been minimal due to lack of space

through pairs maintaining their territories. Banded juveniles have been found up to 20 kilometres away from their natal river.



The monitoring of these two populations indicates that predator control is required for continued blue duck population viability. Predator management in both areas has been funded with help from Environment BOP.

WANGANUI

From Nic Peet, Graeme La Cock and Rosemary Miller

Whio

As part of a predator control trial and increased monitoring on the Manganui-a-te-ao, a team from the Whanganui Area Office, Wanganui Conservancy and Ohakune Field Centre spent four days colour banding whio on the Manganui-a-te-ao. Twenty nine birds were caught, including two old adults originally banded by Murray Williams 11 years ago on the same river. Three females were also fitted with radio transmitters. Breeding success will

be closely monitored over the coming breeding season.

The translocation of whio to Egmont National Park continued in April with the release of this year's crop of captive-bred juveniles. Ten of the 11 birds released were males. This necessitated the release of some males outside the current area of mustelid control. Encouragingly, all birds seemed to cope with a move into the wild despite some wild Taranaki weather. Two males have been predated by stoats outside the mustelid control area. The release programme carries on for another four years.

Short-tailed bat

Short-tailed bats were recorded from a *Dactylanthus* flowering site near Mokai Station on the edge of the north-western Ruahines in April. This exciting discovery was the first record of short-tailed bats from the Ruahine Forest Park. Palmerston North Area Office staff plan to follow up this record with more bat survey work next year.

North Island brown kiwi

As well as finding new sites for bats, Palmerston North staff have also been on the trail of kiwi. A new site for NIBK was found near Makino in the foothills of the western Ruahines. Kiwi call surveys at Ruahine Corner, subject to regular 1080 treatments, have produced a good number of calls.

***Pimelea* “Turakina”**

Jim Campbell led the Wanganui Museum Botanical Group on another trip to Castlecliff Beach to find *Pimelea* “Turakina”. This latest trip was to the far end of the beach. Two earlier trips had each revealed a population of *P. “Turakina”* at other sections of the beach. As expected it was found again. Other notable additions to the list were *Leptinella dispersa* ssp. *rupestris*, *Sonchus kirkii* and *Centipeda aotearoana* (Data Deficient - second record for Conservancy).

NELSON/MARLBOROUGH

From Shannel Courtney, Tim Shaw, Roger Gaskell, Mike Aviss and Jan Clayton-Greene

Pest fish

The field season for survey, monitoring and eradication of the pest species koi carp and gambusia ended with mixed results. No new populations of either species were found. Monitoring of the 21 sites treated with rotenone in previous seasons suggests our eradication efforts were successful. The one known koi population has been removed successfully. Three of the six known gambusia populations have yet to be treated due to a mixture of bad weather, difficulties meeting consent conditions and landowner expectations. These are now the only known South Island populations and it remains a top

priority to complete their eradication.

Adele Island

A local initiative with commercial tourist operators and members of the Marahau community has seen the establishment of a long-term stoat control programme on the 87 ha Adele Island off the southern Abel Tasman NP coast. Work involved the construction of a loop track around the island, building and installing trap boxes, a month of prefeeding, and maintaining set traps. The island is within 1.2 kilometres of the mainland so the traps will be tended indefinitely. This maintenance work will be undertaken by the local sea kayaking and water taxi companies.

Nelson rare plant bits

It has been a good year for the Nationally Critical tree daisy *Olearia polita*. The discovery of five new populations in the Wangapeka basin has doubled the total number of known sites. All are on private land and all the landowners have been very keen to preserve the plants and their habitat. Three sites are being signed up as conservation covenants, and half a kilometre of fencing has been erected.

Another Nationally Critical species, coastal peppercress (*Leptidium banksii*), is stubbornly resisting all recovery attempts. Of the transplants at five sites, only one appears healthy - seeding prolifically for the entire season. A previously unrecognised threat was identified this year: root aphids, which

annihilate nursery plants over hot summer months.

A visit to the only known home of the alpine clematis (*C. marmoraria*) on the marble summits of Mts Crusader and Hoary Head, reconfirmed the presence of healthy stable populations at sites inaccessible to goats.

Three survey trips were made on to alpine marble karst terrain of Mt Arthur to locate and census two localised alpine herbs endemic to the Arthur Range. *Neopaxia drucei*, a tiny ground-hugging semi-succulent, was most numerous as scattered small patches on the higher slopes of the mountain. This species is confined to strips of wind-eroded soil, and does not appear to be under any threat. The survey confirmed that the marble forget-me-not, *Myosotis angustata*, is still Critically Endangered. The c.170 individuals located were thinly scattered on shallow marble scree high up the mountain. Further surveys will continue next season.

Paturau snail

One of our most threatened giant snails is now thriving. *Powelliphanta gilliesi brunnea* monitoring has shown a 2-3 fold increase on the 2001 monitoring. Following monitoring in May, the total population (restricted to <0.5 ha of coastal forest and scrub) is thought to be 1000-1200 individuals, an increase from 150-200 in the 1970s. This increase is due to a combination of factors: habitat protection and improvement which begun two decades ago; several years of rodent control; and the

construction of a rat and hedgehog proof fence in 2002.

Jaws

The Conservancy's title as a national stronghold for jaws (short-jawed kokopu) has strengthened with their discovery near Nelson. Karauria Ratapu, an eagle-eyed trainee ranger, spotted a freshly dead one in a dried out pool in the Eves Valley Scenic Reserve. A follow-up survey revealed giant kokopu, banded kokopu, inanga, upland bully, koura and long-finned eels - but no more jaws. This site is a great little stream and shows the importance of riparian native forest for sustaining suites of large galaxiids - the reserve is one of the very few remaining lowland alluvial forest remnants in the region.

Fantastic flatworm

We have learned that an eyeless, unpigmented flatworm occurring in Puppu Springs (New Zealand's largest freshwater springs) occurs nowhere else. *Spathula alba* was described by Bertha Alison in 1997, and is found under boulders in shallow water in the outflow from the springs.

Marlborough

A survey of the Rarangi foreshore has again turned up *Kiwaia* "Cloudy Bay" (Cloudy Bay mat daisy jumper). Despite annual surveys, this is the first time the species has been seen since before the 2000/01 drought. During the drought there was large die back of its putative host, *Raoulia* aff. *bookeri*.

An autumn survey extended the range of chalk cress (now *Pachycladon* "Chalk Range"). Intensive searching increased the total number of known plants to 24, making this species one of the most threatened plants in the country.

Further monitoring of Andrew Townsend's (BRU) experiments with chemical control of *Carex ovalis* in the ephemeral tarn at Sedgemere on Molesworth, is beginning to show potential for using a weedwand to enable the recovery of the unique turf community there.

A day was spent on Whakaterepapanui Island searching for potential transfer sites for Cook Strait tuatara, Cook Strait giant weta and Marlborough green gecko, all from Stephens Island. Excellent sites were found and we hope to move the animals in October 2003. Tuatara fodder, in the form of common gecko, was locally abundant. A small population of the chronically threatened hairy daphne (*Pimelea tomentosa*) was also discovered.

Frog monitoring on Stephens is showing that the population is healthy, with plenty of last year's young present despite an extended drought. The expanded frog area is being prepared for frogs with the provision of rocky pits and logs, to encourage the natural expansion of the population beyond the frog bank through the Hollow and to the frog pit.

Maud Island's 45 year association with kakapo came to an end on 23 May, with the five remaining birds being airlifted to Chalky Island. Richard Henry, the only known

Fiordland bird, was one of the first kakapo to go to Maud. He was subsequently moved to Little Barrier with a number of other birds, in the hope that he would breed successfully. This didn't happen, so in 1998 he was returned to Maud with Flossie. They mated almost immediately and produced three chicks. This was the first and last time that kakapo bred on Maud. It is hoped that Fiordland's islands will provide more of what kakapo need to breed successfully. In the meantime, it is an opportunity to change the focus on Maud from one of species management to more restoration, enhancing the awesome natural values of the island.

The annual blue cod monitoring in the Long Island/Kokomohua Marine Reserve in Queen Charlotte Sound was undertaken using baited, barbless flasher rigs, at sites inside and outside the reserve. Inside the reserve, 60 cod are frequently caught in less than 20 minutes, whereas outside the reserve, 60 fish are seldom caught in the 2 hour maximum period, and they are generally under legal size. This year, more small fish were caught both inside and outside the reserve than in previous years. This could be a sign that the reserve is producing large numbers of juveniles. Recent changes to daily bag limits (reduction from six to three blue cod per day) will hopefully combine with this to help the fishery recover in the Sounds.

CANTERBURY

*From Dr Alison Evans (DOC)
and Dr Cor Vink (Lincoln
University)*

Periegops suteri

A rare six eyed spider has recently been the focus of a Banks Peninsula survey conducted by two Canterbury entomologists. *Periegops suteri* (Urquhart, 1892) is one of two described species in the Australasian family Periegopidae and is restricted to the Banks Peninsula and Riccarton Bush Reserve. Adult *P. suteri* are approximately 8 mm in body length and have six small eyes in three widely spaced pairs.



Adult female *Periegops suteri* (Photo: Cor Vink).

To date, nine Banks Peninsula reserves have been surveyed and *P. suteri* has been confirmed in six of those. Collection data indicates that the species was more abundant in the early 1900's and was originally endemic to the Banks Peninsula and nearby forest (Forster, 1995).

The primary cause of decline for this species is likely to be a reduction in suitable habitat. There are few

remnants of mature forest remaining on Banks Peninsula and these are under considerable threat due to their small size and the impacts of weeds and pests. In some reserves such as Kaituna Valley Reserve, *P. suteri* may still be under threat as the leaf litter layer in which it lives is regularly swept away by flooding. The spiders are also likely to be eaten by animal pests such as hedgehogs, cats, rats, mice and possums. One of the key objectives of the survey is to determine the distribution of the spider. Once this is known, consideration will be given to intensifying conservation objectives in the reserves that are occupied by *P. suteri*. This will be achieved by actively providing refuges such as logs for the spiders to use, by taking steps to minimise flooding, by controlling pest species and by ensuring that the reserve is protected from further degradation.

Forster, R.R. (1995). The Australasian spider family Periegopidae Simon, 1893 (Araneae: Sicarioidea). *Records of the Western Australian Museum Supplement* No. 52: 91-105.

Urquhart, A.T. (1892). Descriptions of new species of Araneae. *Transactions and Proceedings of the New Zealand Institute* 24: 230-253.

*From Sjaan Charteris and
Jack van Hal*

Freshwater fish discoveries

While ankle deep in water in an area known to locals as Willowburn, Twizel Ranger Simon Elkington discovered a strange looking fish in July 2001. Simon took it to Bob McDowall (NIWA freshwater fish expert), who agreed that it looked

like something quite different. Further morphological and genetic work has confirmed that it is a new species of freshwater fish unique to New Zealand. This fish is now known as the bignose galaxias but is yet to be formally described (McDowall pers. comm.). Subsequent surveys by Simon and other DOC employees over the past year have revealed bignose galaxiids at seven other sites around the Twizel area.

This year New Zealand's rarest freshwater fish, the Nationally Critical lowland longjaw galaxias (*G. cobitinus*), was also found in some of the Twizel Area's waterways. Previously this fish was known only from the Kauru River, a tributary of the Kakanui River in north Otago, and the Hakataramea River in the Waitaki catchment, where it is now thought to be extinct.

More surveys are needed this year to find out how widespread these two freshwater fish species are in the Twizel Area, and to see if they are present in any other areas of Canterbury.

Orange-fronted Parakeet

In order to obtain an understanding of overall distribution, general surveys of the Hurunui and the Hawdon valleys were carried out during October and November 2002, and distance sampling in both valleys in December. In the Hurunui no orange-fronted (OFP), eight yellow-crowned (YCP), and 11 unidentified (UIP) parakeets were recorded. In the Hawdon, seven OFP, eight YCP, and 18 UIP were counted. These results indicate a higher encounter

rate in the Hawdon Valley, but this may have been due to a reasonable beech mast earlier in the year, and there was evidence that breeding did occur during the winter of 2002.

Because OFP were regularly seen at several sites in the Hawdon Valley, nest searches were concentrated in this area for most of January. However, only 2-3 YCP nests at the prospecting/laying stages were found. Searches continued while there were signs of breeding activity in YCPs. Most OFPs appeared to be single birds or in flocks with YCPs, or just flying through quickly in the canopy. Some OFPs were displaying breeding behaviours, but very few pairs were located repeatedly.

One OFP nest was located when the Hurunui was visited in mid February to check on parakeet activity. The nest was climbed and monitored. All five eggs from the nest were removed and flown in an incubator via helicopter and plane to Invercargill and delivered to Te Anau Wildlife Park. After candling to determine the ages and conditions of the eggs, they were swapped with five red-crowned parakeet's eggs. Four of the eggs hatched and all the chicks fledged, in spite of both foster parent birds dying and the chicks requiring hand feeding four times a day for several weeks! The next step is to decide whether the chicks in Te Anua will get to breed in captivity or whether they will wait till they get to Te Kakahu (Chalky Island).

Unfortunately no further nests were located and breeding seems to have come to an end. Surveys in other nearby valleys have begun and the search for further populations

continues... Lets hope more than one nest can be found next season.

WEST COAST

From Glen Newton, Phil Knightbridge, Rachel McClellan and Jeroen Lurling

***Utricularia geminiscapa* found in south Westland**

Utricularia geminiscapa, a bladderwort thought to be formally only known naturally from North America, has been found in another location on the West Coast. In March a specimen was collected from a small peaty pond in the Sponge Swamp Wetland east of the Jackson Bay Road, Haast, by Jane Goodman and Glen Newton.

The floating parrot-feather like *Utricularia* species found on the West Coast was formerly thought to be a threatened native species *U. australis* (*U. protrusa*). However, research by Bruce Salmon, Peter Heenan and Peter de Lange indicate that it is *U. geminiscapa*. We now need to explain how it has got into natural systems on the West Coast of NZ! Did people bring it here or did it come in with migratory wading birds?? A paper on this fascinating biogeographic puzzle is now being prepared by Peter Heenan, Peter de Lange and Phil Knightbridge

Oparara blue duck programme

In August 2002, staff from the Buller Area Office, along with Dave Barker and his dog Gus, searched the Oparara River and its tributaries for blue duck. Historically, the Oparara catchment is thought to have supported one of the largest populations in the Buller, but only two pairs were found during the survey. Radio transmitters were attached to both females in order to monitor their breeding success. The blue ducks were monitored during the 2002/03 breeding season. One pair raised four chicks, all of which fledged during mid-January. The other pair showed no signs of breeding.

The only results of searching the rivers again in April were the same two pairs, so their radio transmitters were replaced. We are sure that there are more ducks on the river. Observations during trap line checks and from helicopters indicate that there may be as many as two more pairs and one single duck in an area of the Oparara River that is very difficult to check. It is hoped that these elusive ducks will be caught prior to the 2003/04 breeding season.

Meanwhile, four other staff worked long hours to establish 25 kilometres of stoat traps along the Oparara, Nimrodel and Postal rivers. To date, 59 stoats have been caught. During June 2003, an additional 16 kilometres of trap lines are going in, giving more complete coverage of the area.

Rare plants

Tenure review inspection of the Cascade pastoral lease turned up a number of threatened plant records. Good populations of the grass *Deschampsia cespitosa*, the sedge *Carex tenuiculmis*, the shrub *Olearia lineata* and a few *Coprosma wallii* and *Melicytus flexuosus* were found. The *Carex* and *Melicytus* are of particular interest as the previous known southern limits for these two species on the West Coast were Kaniere and Lake Matheson respectively. A small patch of the herb *Gratiola nana* was also found. The challenge now will be to achieve a result that protects these populations.

A good population of *Deschampsia cespitosa* was found in the Thomas Valley (Haast catchment). There was no evidence of browse on these plants, despite plenty of deer sign in the vicinity. No *Pittosporum patulum* were found in the upper Landsborough catchment during a joint Otago-West Coast survey.

Novel approach to stoat control

West Coast staff stumbled across a novel method for controlling stoats during a mistletoe and possum survey in the Hope Valley in South Westland. One staff member had lost their sock, which was later discovered when they packed up their tent - with a squashed stoat in close attendance. It seems the stoat had amorous intentions for the sock (it had been worn for at least two days prior to going missing so it is possible the stoat mistook it for another smelly old stoat), but made

the deadly mistake of heading under a tent that was in use.

Haast tokoeka

A kiwi survey was carried out to assess the abundance and distribution of the Haast tokoeka within the 11,500 ha Haast Tokoeka Sanctuary in south Westland. Throughout the sanctuary, 88 sites were surveyed, which involved listening for two hours at each site and using call playback to solicit responses. A minimum of 77 new kiwi were heard, providing a total estimate of 129 known Haast tokoeka within the sanctuary: 39 confirmed pairs, 58 males, 66 females, and 4 possible juveniles and subadults detected. This is likely to be an underestimate as the entire area of the sanctuary was not covered, and not all kiwi will call during the survey. Very few kiwi were found on the lowland flats, and the highest densities were on the northwestern faces of the Haast Range, from the base up to the low alpine tussock zone.

OTAGO

From John Barkla, Bruce Mckinlay and Trudy Murdoch

Rare shrubs

Ex-Wairarapa DOC ranger Aalbert Rebergen has been quick to make his mark on the botanical scene in his new role as Biodiversity Officer for the Otago Regional Council. Aalbert has turned up several new records of

threatened shrubs in the northern Catlins including *Olearia hectorii*, *O. fragrantissima*, *Coprosma obconica* and *C. pedicellata* (first record for Otago). He is negotiating protection for sites on private land which complements our own work on these species.

Sea holly

Eryngium vesiculosum (threat category Gradual Decline) only has a couple of historical records in Otago, so Graeme Loh could be excused for thinking it might be a weedy thistle. Graeme's find near Kakanui in north Otago represents the southern limit for the species and adds a third threatened plant to the site which already boasts *Lepidium oleraceum* and *L. tenuicaule*.

Central Otago grasshopper

The central Otago grasshopper (*Sigaus childi*) has been the subject of a thyme removal experiment at the Earnsclough Tailings. In areas of varying thyme density, grasshopper numbers were measured in control and treatment plots before and after thyme removal. Initial results were variable, with the only significant difference being detected in the medium density area where grasshopper numbers decreased following thyme removal. Further counts will be conducted next year when the "disturbance following weeding factor" will be removed.

Weka

Wanaka staff had a really interesting summer with the weka on Te Peka Karara in Lake Wanaka. The season

summary follows: of the 30 birds bought over from the Chathams one died in the aviary after two weeks from systemic gout; nine have swum off the island; two were run over on the Hawea road; and one was killed by a falcon. This left us with 19 of the original birds.

Seven pairs attempted to breed and three pairs fledged a total of five chicks. Nine other chicks were killed near the aviary by other weka. This leaves a total of 24 on the island at the beginning of winter. In addition there are still some seven birds running around on the adjacent land.

The death of a bird from gout made us reassess the diet for the birds in the aviary. As a result, we removed all additional protein from the diet and replaced it with fruit. The community has really responded to the presence of the birds, and visits to the island by both private and commercial groups have increased dramatically. Despite an intensive publicity campaign, rangers still had 23 people visit with their dogs over the summer. Most of the dog owners were happy to leave the island when the reasons were explained. We are now, in association with project partners, looking at options for next season.

Royal albatross

A total of 107 royal albatross visited Taiaroa Head this summer. Of these, 64 paired up and laid 31 fertile eggs. Twenty nine of the eggs hatched and it looks like 27 will fledge. So it has been a very successful season.

Giant skink protection

Predator trapping at Macraes Flat continues. Cat numbers have increased as a result of increased rabbit numbers. In the first year of trapping (1999) 100 cats were caught. In April 2003 "Rooster" the trapper caught 114 cats!! Although the land looks the same, it is clear that there has been a massive change taking place.

SOUTHLAND

*From Andrea Goodman,
Hannab Edmonds, Brian
Rance, Steven Dillon and
Dave Crouchley*

Clinton Valley kiwi productivity and chick survival project update

To date we have two surviving chicks from this season. One has reached 1.2 kg, and it's a boy! He answered a taped call of a male which was played near him when trying to call new adult males in. The other chick is now 700g. In May, Te Anau Area staff took two Bank of New Zealand managers to view the transmitter change on this chick. We hope to provide more opportunities like this to our sponsors next season.

Recently, five new adult male kiwi were caught in the Clinton Valley as well as the beginning of the North Branch and the Neale Burn. This increases the monitored kiwi in the Clinton Valley study to a total of 19

adults, 15 (possibly 17) of which are known pairs.

New Moth found

A wing of the Catocalinid moth (*Otbreis fullonia*) was found by Lloyd Esler at Oreti Beach, and identified by Brian Patrick (Otago Museum). It is a large beautiful species related to the large orange-suckling moth *Elygea materna*, two of which have been seen in Southland in the past. It is a non-establishing immigrant and the first southern record. Both species range through the old world tropics to Pacific and Australia. In Australia they are found south to New South Wales, with food plants in Menispermaceae and Fabaceae. So an interesting find: a potential immigrant that didn't quite make it, probably drowning at sea.

Plant updates

New records for several lowland riparian plant species including *Coprosma pedicellata*, *C. obconica*, *Pittosporum obcordatum* and *Olearia hectorii* have been made over the summer. These records continue to increase our knowledge of the distribution and status of these species within Southland. These records are the result of the Science & Research funded lowland forest fragmentation project, tenure review and opportunistic surveys.

A survey of a gully in the Blue Mountains located a total of 25 patches of the rare grass-like sedge *Carex inopinata*, which until recently had been only recorded from two other sites in New Zealand.

Several of these patches will need to be inspected during the carex flowering or fruiting period to confirm the identity. Never the less, this find is still a significant increase in the known populations of this species. The gully containing the *C. inopinata* also contains other rare plants such as *Coprosma obconica*, the mistletoe *Tupelia antarctica*, toothed lancewood *Pseudopanax ferox*, *Uncinia strictissima* and approximately 1600 individuals of the fragrant tree daisy *Olearia fragrantissima*.

Fiordland update

It was quite a good breeding season for takahe in Fiordland, despite there being quite a bit of snow about in the spring: 20 chicks were produced in the Murchison Mountains and 17 at the Burwood Bush Rearing Unit. This is the best production for quite some years. The number of adult birds in the Murchisons does not appear to have changed that much from last year's tally of 141.

The 15000 ha stoat control block had all traplines (800 double trap sets) finally completed early last summer. Over the summer/autumn period, 122 stoats were taken out of the area. We are monitoring kiwi, mohua and takahe to assess the effectiveness of this trapping programme. Mohua counts will be carried out both inside and outside the stoat control area each October. Ten male kiwi were fitted with transmitters (five alpine, five forest habitat) during May, with the aim of monitoring nesting activity and chick production.

The deer control programme over the Murchisons has also gone well this year. An annual harvest target of 120 animals had been set based on a calculated/estimated maintenance harvest of 117. With the last operations for the year still underway, it appears that we will be removing more than 140 animals from the area this year.

ISLAND ROUNDUP

From Sandy King

Rat Free Campbell Island

A team of six DOC staff, along with Jak the rat dog, recently returned to Bluff after a month searching for rats on Campbell Island. We are delighted to report that we didn't find anything to indicate that rats are still present. At 11,300 ha, Campbell is the largest island from which DOC has successfully eradicated rats, and is possibly the largest island in the world to have had rats eradicated.

The eradication was carried out in the winter of 2001 and this last visit was the first dedicated search for possible survivors. After two breeding seasons, we expect that the population would have increased to a detectable level if any had survived.

Our search included snap trapping (4089 uncorrected trap nights), sign searching, and using Jak's nose to sniff out survivors. We also put out gnaw sticks that had been soaked in peanut oil. These were left out on

the most commonly used tracks as a longer term monitoring tool.

A handful of old rat droppings were found in several of the now deserted Met Service buildings. This old sign was removed at the start of our trip and traps were set. The traps remained untouched throughout the month. It was interesting to note that several droppings found in the buildings showed obvious signs of rodomine, the indicator dye that was used in bait trials carried out in 1999. This meant that the sign we found was almost four years old and perfectly preserved.

Other factors besides the empty traps, sign searching and Jak having a good sniff around, indicated the absence of rats. These included the presence of wetas, a favourite rat food. Previously wetas had been quite rare and hard to find, but on this trip they were noticed on several occasions. A few minutes searching amongst *Dracophyllum* litter outside the hut produced a couple, and several leapt out of litter that accumulated in the forks of bushes.

Another positive sign was the presence of pipits, a species previously restricted to offshore islets and stacks. On this trip we recorded 20 sightings, some of more than one bird. We were probably the first people they had ever seen and they were very tame, showing just how vulnerable they would be to predation. They were more common in the southern part of the island, suggesting that they are recolonising from the closer islets there. In another few years the island should be swarming with them!

*From Paul Cashmore and
Keith Owen*

Tuhua (Mayor) Island

Forty two North Island robin (*Petroica australis longipes*) were released onto Tuhua on 17th May 2003. This is the first release of any animal on to the island since it was declared pest-free following the eradication of Norway rats, kiore, cats and pigs three years ago. A team of 18 DOC staff and volunteers spent a day on Mokoia Island (in Lake Rotorua) capturing robins in clap traps. On Tuhua, Mokoia Island Trust Board, Tuhua Trust Board members and DOC staff celebrated the release.

Mokoia Island

A North Island brown kiwi translocation proposal for Operation Nest Egg (ONE) and wild birds onto Mokoia Island has been prepared by the Mokoia Island Trust Board. Moana, a juvenile male (ex Whirinaki Forest) raised from an egg at Rainbow Springs in Rotorua, was the first of the founder population to be released on to the island on Waitangi Day. On the release day the Trust Board members, Minister of Conservation, the South African deputy Chief Justice, other special guests and a large number of Te Arawa attended the release ceremony. Other ONE juvenile kiwi will be released onto Mokoia over the next few months.

NEW ZEALAND THREAT CLASSIFICATION SYSTEM UPDATE

*From Rod Hitchmough,
Biodiversity Recovery Unit.*

The documents describing the New Zealand Threat Classification System (Molloy et al. 2002; Threatened Species Occasional Publication 22), and listing the taxa identified as threatened or data deficient (Hitchmough 2002; Threatened Species Occasional Publication 23) were published at the end of 2002. We could only afford a small print run, which immediately sold out, but a reprint is currently under way. The documents can also be accessed on both the intranet and internet, and the lists are available as an excel spreadsheet, which is easier to search for individual species. This spreadsheet is shortly to be merged into BIOWEB, expanding BIOWEB's coverage to a much broader range of species, and making the threat classification system listings more accessible and easy to search. The BIOWEB records will be updated with new information as it comes to hand. These updated records should be regarded as containing the most authoritative information.

Please note that with the publication of these new lists, the Molloy and Davis (1994) A, B, C etc. categories have become obsolete, and should no longer be used. DOC has chosen to use the New Zealand system internally - any discussion of species status should refer first to its status in the New Zealand system. IUCN status, for those species which are listed, can obviously also be

discussed, but it should always be clear that internal decisions will be made with respect to the local system. However, for species with international distributions, particularly those listed in the New Zealand system as coloniser, migrant, or vagrant, the IUCN status will be most relevant.

To access the documents on the intranet:

- DOC resources
- DOC science
- Publications
- Biodiversity Recovery Unit
- Publications
- Threatened Species Occasional
- Publications
- Numbers 22 & 23.

To access via the internet: open the DOC website then follow the following series of links:

- Publications
- Science & Research
- Biodiversity Recovery Unit
- Publications
- Threatened Species
- Occasional Publications
- Numbers 22 & 23.

<http://www.doc.govt.nz/Publications/004~Science-and-Research/Biodiversity-Recovery-Unit-Publications/index.asp#occ-pub>

The full references are:

Molloy, J, Bell, B, Clout, M, de Lange, P, Gibbs, G, Given, D, Norton, D, Smith, N, Stephens, T. 2002. Classifying species according threat of extinction; a system for New Zealand. Threatened Species Occasional Publication 22. Biodiversity Recovery Unit, Department of Conservation, Wellington. 26 p.

Hitchmough, R. A. (compiler) 2002. New Zealand Threat Classification System lists - 2002. Threatened Species Occasional Publication 23. Biodiversity Recovery

SOUTHERN RIGHT WHALES - SERIOUS ISSUE.....

*From Nadine Gibbs, Central
Regional Office.*

A national project to collect vital information is currently underway on Southern right whales (SRW) around NZ mainland coasts. This is in response to new research recently undertaken by Nathalie Patenaude (University of Auckland). Nathalie was able to identify 23 individual SRWs photographed around NZ and compare them to a catalogue of 849 individuals from the subantarctic group. No matches were found. Although the mainland sample is small, the preliminary information suggests that the mainland and subantarctic group may be separate populations. If this is the case, then the mainland group is very rare and should be afforded maximum protection - especially with the major increase in marine farming that's coming.

SRWs appear to be particularly vulnerable to human-related threats. Ship strikes and incidental entanglement in fishing gear or marine developments have been identified as the most significant cause of mortality. Other threats include: loss of habitat from coastal development, especially large marine farms in their feeding, breeding and migration routes, and being harassed by people.

Because SRWs show strong site-fidelity (when animals return to their natal site to breed), these threats can have significant implications in the survival of SRWs. If we lose the handful of females currently breeding around NZ (either to entanglement or loss of habitat etc.) the survival of this group of whales will be threatened due to there being little or no recruitment into these areas by other adult females. It would be a great loss to our marine biodiversity if we lose these groups of whales. We may not see them around New Zealand again.

We are now entering the winter season, which is when SRWs start appearing around our coasts. In fact we had our first reported SRW sighting this year on the 9th May off Taiaroa Head, Dunedin; and another off Moeraki on the 28th May.

Our committed DOC team will be out responding to SRW sightings and collecting important data to help us clarify the status of the SRW population (e.g. whether our visitors are linked to the healthier subantarctic population or not). This information includes details of the sightings, as well as photographs (worth their weight in gold!) of the lateral aspect of the head to capture the unique pattern of white callosities on each animal, and biopsy sampling to determine sex of the animal and the relatedness of the population.

SRWs can be easily identified by the lack of a dorsal fin, pattern of white callosities on their head, v-shaped blow, and mostly black colouration.

Adults average 14-15 m in length and newborn calves between 4.5-6 m.

If anyone sees, or hears of a SRW sighting please report it immediately to your local DOC office, or contact Rob Suisted (DOC Central Region) on (04) 494 1467, rsuisted@doc.govt.nz.

