

Reintroduction Specialist Group

Oceania Newsletter

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Review of RSG Membership

We are currently reviewing membership throughout the Reintroduction Specialist Group (RSG). The Species Survival Commission now insists that members of Specialist Groups are more accountable and proactive in the group's activities. Existing members should already have been sent membership forms for the period 2005-2008, so please if you are an RSG member and have not received this form please let me know. No response on the part of members automatically means that they do not wish to remain as a member of the RSG. If you are not currently a member, but have responded to me saying you want to be on my email list of reintroduction contacts, you will be contacted soon about whether you want to become a member.

There will now be three levels of RSG Membership:

1. **Active members** – Individuals who would be expected to be proactive in RSG activities, and could be invited to serve on Task Forces or special projects. These members should have a demonstrated experience in re-introductions.
2. **Young professionals** – Students and/or researchers involved in reintroductions and below the age of 30.
3. **General Subscribers** – People who do not wish to actively participate in RSG activities but wish to be kept informed about the group's activities, eg., through newsletters and e-mail postings.

I think this means that anybody can become a General Subscriber if they want to be. I will be making recommendations about who should be asked to be an Active Member, so if you are interested in being one of these let me know. I would also be particularly interested to hear about any postgrad students working on reintroduction or anybody else who falls in the Young Professional category. Email to D.P.Armstrong@massey.ac.nz.

Recent New Zealand Reintroductions

Click [HERE](#) for previous reintroductions!

Tuatara to Whakaterepapanui Island

In October 2004, 300+ juvenile tuatara were released on Whakaterepapanui in outer Pelorus Sound. These animals had been hatched in captivity from eggs taken from Stephens Island in Cook Strait (as part of study by Nicola Nelson on effects of temperature on sex determination). The young animals were then raised for the next 4-5 years at Nga Manu Sanctuary north of Wellington with funding assistance from the Zoological Society of San Diego. The release site was some 500 m from where adult tuatara had been released the previous year. While the establishment of another wild population of tuatara has obvious conservation benefits for the species the population will be of particular scientific interest in helping to determine whether the fitness of captive raised animals differs from those raised naturally. From Peter Gaze (pgaze@doc.govt.nz).

Hamilton's Frog to Nukuwaiata

In 2004, the first translocation of Hamilton's frog (*Leiopelma hamiltoni*) was made from Stephens Island to Nukuwaiata in Cook Strait. This translocation was considered a wise move in order to establish a second population but was treated with extreme caution given that the total population is less than 400 adults. The number and age class of this first cohort was determined after analysis of years of monitoring data from Stephens Island and the new site had been shown to be suitable after comparison of temperature and humidity data. Survival of both populations looks promising and a second cohort is due to be moved in mid 2006. From Peter Gaze (pgaze@doc.govt.nz).

Blue Duck to Flora Catchment, Kahurangi National Park

Attempts to protect blue duck (*Hymenlimus malacorhynchos*) in Kahurangi National Park continue to use the technique of raising young in captivity for re-introduction. The first clutch is taken at mid incubation, hatched in captivity and raised until the young are on the point of fledging before being returned to their natal river. The adult female has usually been able to go on and raise a second clutch. The technique has been used most successfully in the Wangapeka catchment where predators are controlled and the injection of many young birds has allowed a rapid response by the population. An attempt to use this technique to re-introduce blue duck into the Flora catchment was not successful. These young were released late in the summer of 2004 into a river that has less invertebrate food and the problems were compounded by a particularly tough winter. The surviving young, however, were recaptured, nursed back to health in captivity and then released the following summer (January 2005) into the Wangapeka where they have flourished. Another attempt to re-introduce birds to the Flora (where predators are also controlled) will be made using wild raised young just prior to fledging. From Peter Gaze (pgaze@doc.govt.nz).

Mokohinau skink to Lady Alice Island

Mokohinau skinks (*Cyclodina* sp.) were released at West Bay of Lady Alice Island (155 ha) in January 2005. The 46 skinks released (17 females, 14 males, 1 juvenile) were from Muriwhenua Island, 1.2km from release site. The species is assumed to have been on Lady Alice historically because the source and release site were connected about 3000-5000 BP. The reintroduction is part of restoration of Marotere Islands following eradication of Pacific rats in 1994. An earlier translocation into forest in a valley was unclear as to its success. We believe the animals left the area chosen but we have been unable to ascertain this. Three

lizards caught the year after the first release were found at the opposite corner of our monitoring quadrat, some 20 m away from release site. This time they were released into a beach boulder area, more similar to where they came from. The skinks were caught in 4-litre paint pails over 4 days, transported in cloth bags, and held in those bags or in plastic bins with forest litter until processed. From Richard Parrish (rparrish@doc.govt.nz).

Hihi to Karori Sanctuary, Wellington

On 17 February 2005, 33 hihi from Tiritiri Matangi Island were released at the Karori Wildlife Sanctuary in Wellington. Another group of hihi were released in May. This was the first reintroduction of hihi to a predator-fenced mainland area. Contact Raewyn Empson (raewyn@sanctuary.org.nz) or Richard Griffiths (rgriffiths@doc.govt.nz) for more information .

Huttons Shearwater to Kaikoura Ranges

In March 2005, a trial translocation of just 10 Huttons shearwater (*Puffinus huttoni*) chicks occurred from the main colony high in the Seaward Kaikoura Ranges to a new site on coastal farmland on the Kaikoura Peninsula. The trial was intended as a learning exercise for Department of Conservation staff before embarking on the major exercise of shifting 100 pre-fledging birds during each of the next three years. Previous research by Dr Richard Cuthbert had shown the main colony to be stable but at risk from ungulate disturbance or slips and rock fall in this alpine environment. The new colony provides some safeguard for the species as it can be well protected from such factors and, in addition, has the potential to provide opportunities for public viewing as the colony becomes established. From Peter Gaze (pgaze@doc.govt.nz).

North Island Robins to unoccupied forest fragments near Benneydale

Declines in distributions can potentially occur through metapopulation dynamics after habitats are fragmented, as well as through loss of habitat and degradation of habitat quality (see Armstrong 2005, Conservation Biology 19: 1402-1410 for discussion of “habitat paradigm” and “metapopulation paradigm”). If metapopulation dynamics are important, we can potentially increase distributions through translocation to unoccupied fragments even if there is no management of habitat quality. Since 2002, we have been collecting data on occupancy, survival, reproduction, and juvenile dispersal of robins in forest fragments near Benneydale to assess the extent to which the current distribution is explained by habitat factors (eg., predator and food abundance) or metapopulation factors. This research suggests a strong role of metapopulation factors, with isolated fragments tending to be unoccupied and dispersing juveniles not reaching these areas due to reluctance to cross gaps greater than about 100 m. Consequently, we are testing the effect of metapopulation factors experimentally by reintroducing robins to unoccupied fragments. We released a total of 35 robins in 6 unoccupied fragments (max 10 ha) from 7 April and 8 June, and sourced the birds from nearby a nearby pine plantation due for felling. Birds were radio-tagged, and monitoring over the 6 weeks of transmitter life after release showed that 3 died shortly after translocation, 2 moved back to the pine plantation (5-10 km away), and the remaining birds stayed in or adjacent to the fragment where they were released. The robins established in the new fragments are now being closely monitored, and their survival and reproduction compared with robins in previously-occupied fragments. We will reintroduce robins to a further 6 fragments in 2006. From Doug Armstrong (D.P.Armstrong@massey.ac.nz).

North Island Robins to Kotuku Peninsula, Great Barrier Island

On 3-4 April 2005, 27 robins from Tiritiri Matangi Island were translocated to the Kotuku Peninsula (near Port Fitzroy) on Great Barrier Island. Robins are assumed to have been extirpated from Great Barrier by rats and cats (there are no mustelids), and this is the second

reintroduction to a predator-control area on Great Barrier (the first was to the Windy Hill catchment in 2004). Rats and cats are controlled over the whole peninsula, with a total area of about 260 ha. This area includes Glenfern Sanctuary. Most of the birds were adults (16 males, 10 females) of known history on Tiritiri Matangi, and one bird was a juvenile. This is the third translocation from the reintroduced robin population on Tiritiri Matangi, and this population is being used to study the effects of harvesting on source populations (Dimond & Armstrong in press, Conservation Biology). Eleven of the translocated robins have been found since the start of the breeding season, and these have formed 5 pairs. These had produced 10 fledglings by midway through the breeding season (early December). See the [Glenfern Sanctuary website](#) or contact Tony Bouzaid (tony@fitzroyhouse.co.nz) or for updates on the translocated robins, and contact Doug Armstrong (D.P.Armstrong@massey.ac.nz) for information on adaptive harvesting of source populations.

North Island Robins to Ark in the Park, Waitakare Ranges

In April 2005, 53 robins from Mokoia Island were released in “Ark in the Park” area of the Waitakare Ranges near Auckland. Robins would have occurred in this area previously, but are assumed to have been extirpated by introduced mammals, particularly rats and stoats. These predators are now controlled over a 1000 ha area, and it is planned to extend this to 2000 ha. Rats are controlled by brodifacoum bait stations at 50 m intervals in lines 100 m apart, and mustelid trapping is carried out on road boundaries and along tracks. In addition cage traps are set for feral cats. Five pairs have so far been detected, and these had produced 7 fledglings by midway through the breeding season (early December). From Sandra Jack (arkinthepark@paradise.net.nz).

Snares Island Snipe to Putauhinu Island

On 16 April 2005, 30 Snares Island Snipe (*Coenocorypha aucklandica buegili*) from North East Island (Snares Islands) were released on Putauhinu (141 ha, off SW Stewart Island). Putauhinu formerly had a population of the Stewart Island Snipe (*C. a. iridalei*), but this population is assumed to have been extirpated by the introduced cats and/or kiore on the island. The cats died out naturally in the 1960s and kiore were eradicated in 1996. The Stewart Island Snipe became extinct after ship rats invaded Big South Cape Island in the early 1960s (an attempt to translocate snipe from Big South Cape in August 1964 was unsuccessful). The translocation of Snares Island Snipe therefore represents a taxonomic substitution in terms of restoring the Putauhinu ecosystem, and also increases the distribution of Snares Island Snipe which is range restricted. The snipe were captured with handnets, and held in two aviaries until translocation. Contact Colin Miskelly (cmiskelly@doc.govt.nz).

Short-tailed bats to Kapiti Island

Twenty captive-bred lesser short-tailed bats were released onto Kapiti Island in April 2005. It is hoped that this will be the world's first successful translocation of bats. Previous attempts at translocating adult bats (pekapeka) were unsuccessful, possibly because bats returned to their source populations. Consequently, young juveniles were used for the reintroduction to Kapiti. The juveniles were produced by pregnant females collected from an isolated, genetically-distinct, threatened colony in the Tararua Forest Park in December 2004 and taken to the Pukaha Mount Bruce National Wildlife Centre in the Wairarapa to give birth. In February, when the pups were old enough to fly, they were transferred to Kapiti Island where they were placed in a temporary aviary to acclimatise to the island before being released into the wild. The pups' mothers were returned to their home in the Tararuas. Click [HERE](#) for more information on the translocation. Supplementary feeding was stopped in September, and bats caught in October had maintained their weight. The bats are roosting in tree crevices rather than the nesting boxes provided for them, but still visit the aviary where they

were initially kept and snuggle into the polar fleece in which they roosted there. More juvenile bats will be taken to Kapiti Island in March/April next year using similar methods. Contact Jay Ruffell (jruf004@ec.auckland.ac.nz) or Lynn Adams (ladams@doc.govt.nz).

Maud Island Frog to Long Island

During the winter of 2005, 100 Maud Island frogs (*Leiopelma pakeka*) were translocated to Long Island in Queen Charlotte Sound. As with the previous translocation of *Leiopelma*, a suitable site had been prepared with boardwalks constructed over the boulder substrate allowing monitoring to occur without disturbance to the habitat. The establishment of this new population is being studied by Dr Phil Bishop and students from the University of Otago. From Peter Gaze (pgaze@doc.govt.nz).

Tuatara to Karori Sanctuary

70 tuatara were translocated to Karori Wildlife Sanctuary in Wellington on 2 December 2005. This is the first reintroduction of tuatara to any mainland site since they were extirpated from the mainland in the 19th century. The tuatara came from Stephens Island. They are currently being held in quarantine, and will then be released into a specially constructed research area in the Sanctuary. Another 130 tuatara from Stephens Island will be released in Karori Wildlife Sanctuary in the future. Click [HERE](#) for more information.

Updates on Previous New Zealand Reintroductions

North Island Brown Kiwi at Pukaha/Mt Bruce

Nine captive-reared kiwi were released at Mt Bruce in 2004, and all are alive and thriving. The first kiwi chick produced by the reintroduced birds hatched on 28 September 2005. Click [Here](#) for more information.

McGregor's Skink on Lady Alice

McGregor's skink (*Cyclodina macgregori*) were released at Kotutotara Bay of Lady Alice Island (155 ha) in December 1997 and March 1998. A juvenile was caught on a monitoring trip in January 2005 showing breeding has occurred. From Richard Parrish (rparrish@doc.govt.nz).

Relocation of Hochstetter's Frog, State Highway 1

In 2004, 28 Hochstetter's Frogs (*Leiopelma hochstetteri*) were relocated from a stream at Brynderwyn Hills (40 km S of Whangarei) because the stream was going to be infilled due to repair of State Highway 1. Recently a further 25 frogs were relocated because the plans for repair work were extended a further 20 m downstream (due to new cracks found in the road). Last year the frogs were searched for 2 weeks and 2 months after releasing them and none were found. The 2005 frogs will therefore be monitored 3 days after release this time to see if we can locate them again. From Richard Parrish (rparrish@doc.govt.nz).

Update on Reintroductions by Australian Wildlife Conservancy

Click [HERE](#) for other Australian projects!

The Australian Wildlife Conservancy manages 13 wildlife sanctuaries across Australia covering over 650,000 hectares. Reintroductions of threatened mammals and birds have taken place at a number of these sanctuaries since 1994.

Thirty-eight quenda (southern brown bandicoots), six numbats, 37 woylies (brush-tailed bettongs), 42 western ringtail possums, four quokkas and 13 tammar wallabies were translocated to Karakamia Wildlife Sanctuary in Chidlow, near Perth, between 1994 and 1998. All species have persisted, and over 450 woylies have been transferred from Karakamia to stock other AWC and WA Department of Conservation and Land Management (CALM) reintroduction sites (predominantly National Parks and Nature Reserves). Foxes and feral cats are excluded from the 280 ha fenced sanctuary.

Over 200 woylies, over 90 quenda, 44 tammar wallabies and 43 black-flanked rock-wallabies were translocated to Paruna Wildlife Sanctuary in the Avon Valley north of Perth between 2000 and 2005. All species have established populations and are regularly sighted or captured during regular monitoring by trapping and spotlighting. Further translocations of woylies from Karakamia to Paruna Wildlife Sanctuary are planned for 2006. Foxes and feral cats are controlled within the 2,000 ha corridor, through baiting programs, 14 km of fence, the Avon River, and two National Parks that are also baited for introduced predators.

Seventeen burrowing bettongs and 114 Shark Bay mice were translocated to Faure Island in Shark Bay in 2002, 19 banded hare-wallabies in 2004 and 20 western barred bandicoots in 2005. All have established well, with over 140 bettongs captured during the last monitoring period in July 2005, illustrating the suitability of the habitat and rapid population growth in the absence of introduced predators. Cats were eradicated from the island in 2001. A PhD student from the University of Western Australia, Felicity Donaldson, has been studying the ecology and genetics of burrowing bettongs on Faure Island, and Barrow, Bernier and Dorre Islands.

120 burrowing bettongs, 190 woylies, 120 bridled nailtail wallabies and 40 greater bilbies were translocated to Scotia Wildlife Sanctuary in western New South Wales between December 2004 and September 2005. All the translocations have been successful, and a PhD student from the University of Sydney, Graham Finlayson, has been closely monitoring the translocated populations in conjunction with AWC. Eleven black-eared miners were reintroduced to Scotia Wildlife Sanctuary in October 2005 in conjunction with New South Wales National Parks and Wildlife Service and the South Australian Department of Environment and Heritage. Additional animals are due for release in November. A 4,000 ha area of Scotia is fenced to exclude introduced predators for the mammal reintroductions, and a further 4,000 ha fenced area is due for completion in early 2006. Six numbats were transferred from Scotia Wildlife Sanctuary to the Arid Recovery Reserve in South Australia in November 2005. The population at Scotia was derived from 19 numbats reintroduced to Scotia in 1999.

See the [AWC website](#) or contact Jacqui Richards (jacqui@australianwildlife.org) for more information.

Recent Publications on New Zealand Reintroductions

Click [HERE](#) for complete list!

- Adams, L. 2005. Reintroduction of kaka, kiwi and kokako to Pukaha/Mt Bruce forest, New Zealand. [Reintroduction News 24](#): 38-40.
- Armstrong DP, Davidson RS, Perrott JK, et al. 2005. Density-dependent population growth in a reintroduced population of North Island saddlebacks. *Journal of Animal Ecology* 74 (1): 160-170.
- Bishop, P. 2005. Reintroduction of endangered frogs to uninhabited predator-free islands in the Marlborough Sounds of New Zealand. [Reintroduction News 24](#): 44-45.
- Lambert DM, King T, Shepherd LD, et al. 2005. Serial population bottlenecks and genetic variation: Translocated populations of the New Zealand Saddleback (*Philesturnus carunculatus rufusater*). *Conservation Genetics* 6 (1): 1-14.
- Mackintosh MA, Briskie JV. 2005. High levels of hatching failure in an insular population of the South Island robin: a consequence of food limitation? *Biological Conservation* 122 (3): 409-416.
- Sullivan, W. 2005. Reintroduction of saddlebacks to Boundary Stream Mainland Island, New Zealand – returning a predator vulnerable species to the mainland. [Reintroduction News 24](#): 36-38.
- Taylor SS, Jamieson IG, Armstrong DP. 2005. Successful island reintroductions of New Zealand robins and saddlebacks with small numbers of founders. *Animal Conservation* 8: 415-420.
- van Heezik Y, Lei P, Maloney R, et al. 2005. Captive breeding for reintroduction: Influence of management practices and biological factors on survival of captive kaki (black stilt). *Zoo Biology* 24 (5): 459-474.

Recent Publications on Australian Reintroductions

Click [HERE](#) for complete list!

- Butler H, Malone B, Clemann N. 2005. Activity patterns and habitat preferences of translocated and resident tiger snakes (*Notechis scutatus*) in a suburban landscape. *Wildlife Research* 32 (2): 157-163.
- Butler H, Malone B, Clemann N. The effects of translocation on the spatial ecology of tiger snakes (*Notechis scutatus*) in a suburban landscape. *Wildlife Research* 32 (2): 165-171.
- Hammer MP, Walker KF. 2004. A catalogue of South Australian freshwater fishes, including new records, range extensions and translocations. *Transactions of the Royal Society of South Australia* 128: 85-97.
- Jusaitis M, Polomka L, Sorensen B. 2004. Habitat specificity, seed germination and experimental translocation of the endangered herb *Brachycome muelleri* (Asteraceae). *Biological Conservation* 116(2): 251-266.
- Lapidge SJ. 2005. Reintroduction increased vitamin E and condition in captive-bred yellow-footed rock wallabies *Petrogale xanthopus*. *Oryx* 39 (1): 56-64.
- Powell M, Accad A, Shapcott A. Geographic information system (GIS) predictions of past, present habitat distribution and areas for re-introduction of the endangered subtropical rainforest shrub *Triunia robusta* (Proteaceae) from south-east Queensland Australia. *Biological Conservation* 123 (2): 165-175.
- Priddel D, Wheeler R. 2004. An experimental translocation of brush-tailed bettongs (*Bettongia penicillata*) to western New South Wales. *Wildlife Research* 31(4): 421-432.
- Sigg DP, Goldizen AW, Pople AR. 2005. The importance of mating system in translocation programs: reproductive success of released male bridled nailtail wallabies. *Biological Conservation* 123 (3): 289-300.
- Todd CR, Nicol SJ, Koehn JD. 2004. Density-dependence uncertainty in population models for the conservation management of trout cod, *Maccullochella macquariensis*. *Ecological Modelling* 171(4): 359-380.
- Warren K, Swan R, Bodetti T, et al. 2005. Ocular Chlamydiales infections of western barred bandicoots (*Perameles bougainville*) in Western Australia. *Journal of Zoo and Wildlife Medicine* 36(1): 100-102.