



Mokomoko Newsletter

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Hello everyone

It's high time for an update on the Mokomoko Dryland Sanctuary project. We've learnt quite a lot about mice over the past 12 months. Please read on.

Mouse incursion

As reported in our last newsletter, another 16 Otago skinks were released inside our 0.3-ha fence in December 2011. These are in addition to the original 12 released 2 years earlier. However, shortly after the second release, mice breached the fence through small holes in the mesh.

Two Dutch students were monitoring skinks during this period and they witnessed two incidents of mice attacking adult skinks (about 25 cm in length). Both skinks escaped, and one returned a couple of hours later to bask. This skink had a small bloody wound on its head. The survival rate of the second release-cohort during the mouse incursion dropped by about two-thirds. We have since blocked entry points in the fence, and eradicated the mice.



One of the skinks after it was attacked by a mouse. Bite wound is circled.

This is the first recorded evidence of the impacts of mice on this species. We will publish our observations in a science journal (submitted to Biological Conservation) to alert other community groups that efforts to exclude mice in lizard translocation programmes are warranted, at least during their initial phase. Before this incident, we thought we could live with mice and build a cheaper fence, but these latest observations suggest otherwise.

Interestingly, all six skinks remaining from the first release survived the mouse incursion. Unlike the second cohort, these skinks had been established for two years and presumably had access to familiar refugia. Survival of this first cohort has been about 86% per annum, which is similar to skinks in the wild at Macraes Flat where skinks are protected from all pest mammals. The Macraes populations are booming, so we feel we are on the right track provided we exclude mice, at least during the initial phases of future skink releases. Indeed, recruitment of baby skinks continues. Another four babies have been discovered inside the small fence, bringing the total new-borns to seven.

Bigger fence

We are currently raising \$400,000 to build a 1.6-km mammal-proof fence that will protect 14 ha of lizard habitat. The Department of Conservation sees this as a potential release site for the progeny of Grand skinks sourced from their western range where currently, because of difficult terrain, nothing is being done to protect them from predators. We are excited by this opportunity – we have learnt a lot from our pilot study, and are now ready to take on more precious animals to make an even greater contribution to lizard conservation.

Visit from Auckland Zoo

Last month, we were visited by Richard Gibson, reptile curator at Auckland Zoo, and Karin Ludwig, Grand and Otago skink captive manager at DOC. Richard has huge experience in keeping lizards both here and overseas. He made a number of good suggestions on how both we, and the Alexandra Museum, can improve captive conditions for skinks that are on public display. The issue of most concern was lack of adequate UV light. Without this, the skinks cannot produce enough vitamin D, which is vital for numerous body functions. Improvements have been made to the indoor and outdoor display cages.



Richard Gibson (Auckland Zoo) and Karin Ludwig (DOC) visiting Mokomoko Dryland Sanctuary in January.

Plant restoration

We've held three work days over the past 12 months, attacking the exotic Everlasting Pea (*Lathyrus latifolius*), preparing planting sites by spraying grass swards, and spraying briar. We've had much success using an oil-based solution of Grazon™ for briar control. We are fast approaching a point where the focus will be on controlling briar regrowth and new seedlings.

Award

The Central Otago Ecological Trust won the supreme award for Otago at the TrustPower Community Awards in May last year. This award is a tribute to the many volunteers who give their time to this project. Trustees, Grant Norbury and Tom Lamb, will be joined by Central Otago District Mayor, Tony Lepper, to compete for the national title at the national awards to be held in the Far North District later this month.



TrustPower Community Relations Manager Graeme Purches, COET representatives Grant Norbury, Jan Kelly, Tm Whittaker and Central Otago Deputy Mayor Neil Gillespie at the 2012 Central Otago District Community Awards.



Field day

We are holding a work day on Sunday Feb 17 at the Mokomoko Dryland Sanctuary, [REDACTED]

[REDACTED] The focus will be on weed control to improve habitat for lizards in the 14-ha area destined for mammal-proof fencing. And of course, there will be lizard spotting opportunities inside the small fence. Please meet at the gate [REDACTED] [REDACTED] at 10 am, and bring some lunch. We'll have some cool drinks. Equipment provided. Children welcome.

Thanks for your support.

Trustees of the Central Otago Ecological Trust.