



Mokomoko Newsletter

Number 4
8th February 2008

Hello everyone

Our big news is that we are well on our way to building our captive stock of Otago skinks.

A couple of weeks ago we received 6 Otago skinks from Wellington breeder, Dennis Keall, and 2 skinks from Levin breeder, Mike Kean. Shane Fulton, from Alexandra, kindly carried the skinks as hand luggage on his flight back from Wellington. We also hold one of the skinks from the Alexandra Museum that was being bullied by the other two skinks in that indoor display.

We therefore hold 11 skinks in our outdoor facility. We have 12 cages that are specially equipped with PVC pipes that angle 1m below ground into which skinks can escape when temperatures become too extreme. The pipes start at the cage floor and angle beneath the cages into the ground. The system is as yet untested for winter conditions so we will monitor temperatures inside the pipes on a continuous basis, and ensure the skinks are using the pipes when temperatures become extreme. At least two of the skinks are already using the pipes. Thanks to the Alexandra DOC office for their help installing this equipment.

In our last newsletter, we reported that we were able to over-winter our skinks successfully using a thermal refuge design consisting of heeble concrete blocks buried in shingle. Although this design worked, it was difficult to construct and the inside temperatures eventually dropped slightly below freezing. Hence, we are trying the new buried pipe design for next winter.



Tom Lamb (trustee) and Jonathan Rout (DOC) measuring the depth of the holes for the pipes.



PVC pipes positioned under the cages and into a trench.

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PVC pipes angling deep below ground level which allow skinks to escape extreme temperatures.

James Reardon, Karina Holmes and Lesley Judd from DOC's Grand and Oatgo Skink Recovery Programme recently inspected our new cage design and were impressed with the new cage design and our skink management. Because COET are formal members of DOC's Captive Management Programme, our skinks are health-screened to ensure they are free of disease and in good condition. James and his team gave the skinks a full check-over, including DNA samples, and all were given a full bill of health (albeit lab results pending).



DOC staff processing skinks to check their health.



One of the skinks being measured by DOC staff.

As you know we want to breed the skinks and acclimatise them to Central Otago conditions with a view to releasing them into a protected area in the wild in the next few years.

We are also helping Landcare Research investigate the possibility of artificial insemination of lizards. This will allow captive breeding programmes to outbreed animals without having to bring males in from the wild, thereby helping maximise the genetic diversity of captive animals more rapidly and efficiently than by natural matings. Artificial insemination has not been tried before in lizards. The first step is to see whether sperm can be extracted from males. Just the other day, scientists, Frank Molina and Trent Bell, successfully extracted sperm from three of our captive male Otago skinks. This has never been done before.

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Frank Molina and Trent Bell from Landcare Research extracting semen from a male Otago skink.

Keeping 11 hungry skinks well fed with a diversity of invertebrates and native fruits can be a bit of a challenge. Therefore, if you come across any living bugs, caterpillars, worms, beetles, small native berries etc, do bring them in. The skinks will love you for it!

Children's book on Otago skinks

Alexandra local, Pam Chapman, has written the text for a children's book she plans to publish on Otago skinks. Trustee, Derek Chinn, has completed the drawings for the book, and Pam expects it to be published in the next 12 months or so. This is a wonderful initiative and will provide a great opportunity to educate children about these wonderful animals.

Funding received

We would like to thank the following organisations for grants received to date:

- \$22,000 from the World-wide Fund for Nature
- \$1,000 from Gallaway Cook Allan Lawyers, Dunedin.

COET's revised 5-year plan

In our last newsletter, we outlined the Trust's revised plan. Based on a feasibility study we recently

commissioned, we have decided to abandon the idea of building a lizard breeding facility and public education centre, and instead concentrate on more fundamental tasks such as acclimatising skinks to Central Otago conditions with a view to re-introducing them to a small predator-free area near Alexandra [REDACTED]

[REDACTED] The predator-free area will only be small (e.g. 0.5 ha) because we initially want to undertake a pilot-study to test whether it is possible to establish a self-sustaining population. This has never been tried before, and is critical to DOC's skinks management programme. If we can achieve proof-of-concept for re-establishment, we will ultimately expand the fence into a larger pest-free sanctuary – the Mokomoko Dryland Sanctuary.

Given this less ambitious plan, the trust will not be seeking a project manager for the time being, but will instead rely on volunteer support.

Here is our revised plan again it case you missed it in the last newsletter:

1. Expand the captive breeding programme for Otago skinks for re-establishment of wild populations in their former range.
2. Undertake a pilot trial on translocation of skinks to the wild by constructing a small pest-proof fence (e.g. 0.5 ha), eradicating the pests, and introducing captive-reared skinks.
3. Restore the native vegetation in the re-introduction area by way of:
 - a. Intensive weed control and native plantings at the fenced site, and

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- b. Broad-scale weed control and native plantings over a wider area
 - c. Development of a plant nursery for supply of native seedlings, in collaboration with the Department of Conservation.
4. Raise the public profile of lizard conservation initiatives and Central Otago's dryland flora and fauna in partnership with the Alexandra Museum by creating public displays and education programmes based at the Museum.

We will send notification of the next weeding day [REDACTED] in due course.

Thank you for your ongoing support.

Trustees of the Central Otago Ecological Trust.

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