

Shore Skink Survey, Tiritiri Matangi Island, 5 January to 11 January 2015



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Team leaders: Kay Milton (KM) and John Stewart (JS) (unable to carry out fieldwork this year due to illness)

Fieldwork team members: Jonathan Jepson (JJ), Alison Bray (AB), Roger Bray (RB), Simon Fordham (SF).

Survey Methods

The pitfall traps were installed and baited on 5th January and the survey was carried out over the following six days. As in previous years, a combination of checking the traps and hand searching were used, but the relative absence of debris on the beach meant that hand searching played a much smaller part in the survey than it had in previous years. Times were not recorded on the field sheets, but all the searches took place before 10.00 am each day. On the final day, following the morning search, 18 traps were removed and the remaining ones (all of the C row plus B05, B09, B10 and B11) were filled with rocks or sand, plastic lids firmly placed, wooden lids set over and weighed down with rocks, marked with flagging tape, and left in a safe condition for the next survey (date to be decided).

The 18 sets of buckets, lids and wooden covers have been stored in the implement shed. All the other equipment and paperwork was taken off the Island and left with JS and KM.

This year the survey coincided with a translocation of moko skinks to Auckland Zoo (and from there to Rotoroa Island). Moko skinks caught in the survey traps were contributed to the translocation.

Personnel

Due to the absence of the usual team leaders, the fieldwork team was much smaller than usual. Due to other commitments, Jonathan Jepson was able to be present only on the set-up day (5th) and the final day (11th), and Simon Fordham only on the first two days and the final day. For four of the six survey days, the work was done entirely by Alison Bray and Roger Bray.

Set-up, 5 Jan	6 Jan	7 Jan	8 Jan	9 Jan	10 Jan	11 Jan
AB, RB, JJ, SF	AB, RB, SF	AB, RB	AB, RB	AB, RB	AB, RB	JJ, SF

Results

Shore skinks

- One adult was caught in a trap C06 on the first catching day (6th Jan).
- On 7th January, one adult was caught in trap C08.
- No shore skinks were caught on 8th January.
- On 9th January, one adult was caught in trap B02.

- On 10th January, three adults were caught, one in C02 (a gravid female), one in C06 and one in C07.
- On 11th January a gravid female was caught in C06 during the pack-up process.

Seven individuals in total were caught and there were no recaptures. All were adult and two were gravid. For the first time, none of the captures was under vegetation or debris; all were in traps.

Other skink captures

Eight moko skinks were captured, five in the C line, two in the B line and one in the A line. All but one were taken to Auckland Zoo as part of the translocation to Rotoroa Island. Seven copper skinks were caught, three in the C line, one in the B line; the locations of the other three were not recorded.

Comments

Team members were disappointed that the total number of shore skinks captured (seven) was lower than in previous years (nine individuals in 2011, nine in 2012, 11 in 2013). They were also struck by the ‘clean’ appearance of the beach; there appeared to be less debris (logs, seaweed, etc.) than in previous years. This is reflected in the fact that no skinks were found under debris this year. Of the 39 shore skink captures (as distinct from individuals) that took place during the first three surveys, 20 had been under debris.

Photos from the previous two surveys are presented below for comparison.



January 2015, looking down on Fisherman's Bay beach from the footpath (photo by Roger Bray)



January 2012, Fisherman's Bay beach looking south (photo by Kay Milton)



January 2013, Fisherman's Bay beach looking south (photo by Kay Milton)

Although it is difficult to make an accurate comparison from these photos, it appears that, particularly in 2012 (when 13 out of 17 captures were under debris), the material on the beach covered a wider area, particularly to the north of the central pohutukawa tree. In 2015, the material consisted mainly of a concentration of logs just north of this tree, with very little debris spread north of this concentration. In 2013 (when three out of 12 captures were under debris), the debris was more spread out than in 2015, but less so than in 2012.

It is also remarkable that, in 2015, six out of the seven individuals caught were in the C line of traps, the furthest from the sea. One was found in the B line and none in the A line. Of the 19 shore skink captures in traps during the first three surveys, only five had been in the C-line, with five in

the B line and nine in the A line. The indication is that, since 2013, shore skinks have moved higher up the beach and into the grassy area.

Two winters and one summer had passed since the previous survey. Without checking weather reports, it can be recalled that there were at least two major storms in the winter of 2014; in one case, easterly winds of 170 kph were recorded on Tiritiri Matangi. Storms can increase the amount of debris on a beach by throwing up material, but perhaps a particularly violent storm can 'clean' the beach, by breaking up debris and washing it away. Storms might also provoke skinks living further down the beach to move away from the shore.

Although the results from 2015 are disappointing in terms of numbers, they are interesting and could have implications for the future management of shore skinks on Tiritiri (it has been suggested, for instance, that further translocations to different sites around the Island might be worthwhile).

Recommendation

The Supporters of Tiritiri Matangi Biodiversity Sub-committee would be keen to see these surveys continue. Although the Tiritiri Matangi Biodiversity Plan 2013 made no specific recommendations regarding shore skinks, the Plan proposes an overall increase in monitoring in order to discover as much as possible about the Island's fauna and flora. In December 2014, SoTM was granted a 10-year DOC permit to carry out non-invasive research and monitoring on the Island. The activities covered by this permit include the use of non-lethal traps, but the permit explicitly excludes the handling of wildlife. It would therefore be convenient if the current arrangements for conducting post-translocation monitoring of shore skinks could continue.

Kay Milton and John Stewart
April 2015