

Research on saddlebacks (tieke) and robins (kakaruwai) in Orokonui Ecosanctuary



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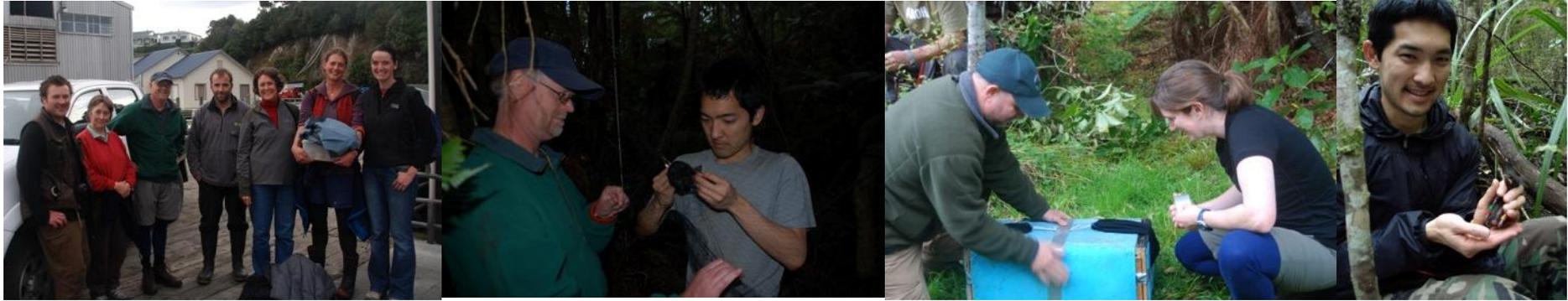
University of Otago



Objectives of research at Orokonui Ecosanctuary

- 1) Assist Orokonui with translocation and reintroduction of threatened birds, particularly saddlebacks and robins;
- 2) Monitor released birds to determine establishment pattern (see publications);
 - Masuda, Smith & Jamieson (2010). Assessment of protocols and best-practice techniques learned during a translocation of South Island saddlebacks from Ulva Island to Orokonui Ecosanctuary, New Zealand. *Conservation Evidence* 7: 69-74
 - Masuda & Jamieson (2012). Age-specific differences in settlement rates of saddlebacks reintroduced to a fenced mainland sanctuary. *NZ Journal of Ecology*, 36(2), 123-130 (2012).
- 3) Basic research on the association between loss of diversity in robin immunity genes, due to population bottlenecks at reintroduction, and subsequent variation in reproductive success.

Photos of fieldwork and researchers



1st Saddleback transfer from Ulva Island, Sept. 2009



1st Robin transfer from Silver Peaks, April 2010

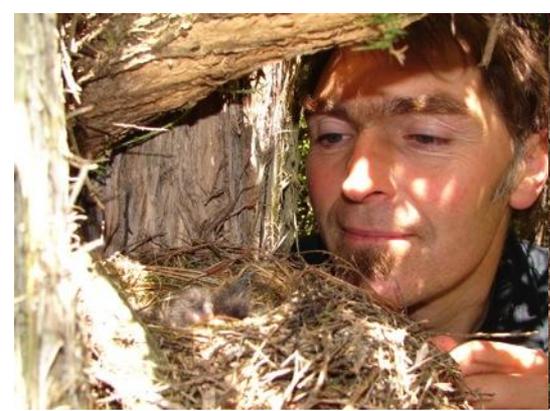


2nd Robin transfer from Silver Peaks and Silverstream, Jan. 2011

Photos of fieldwork and researchers



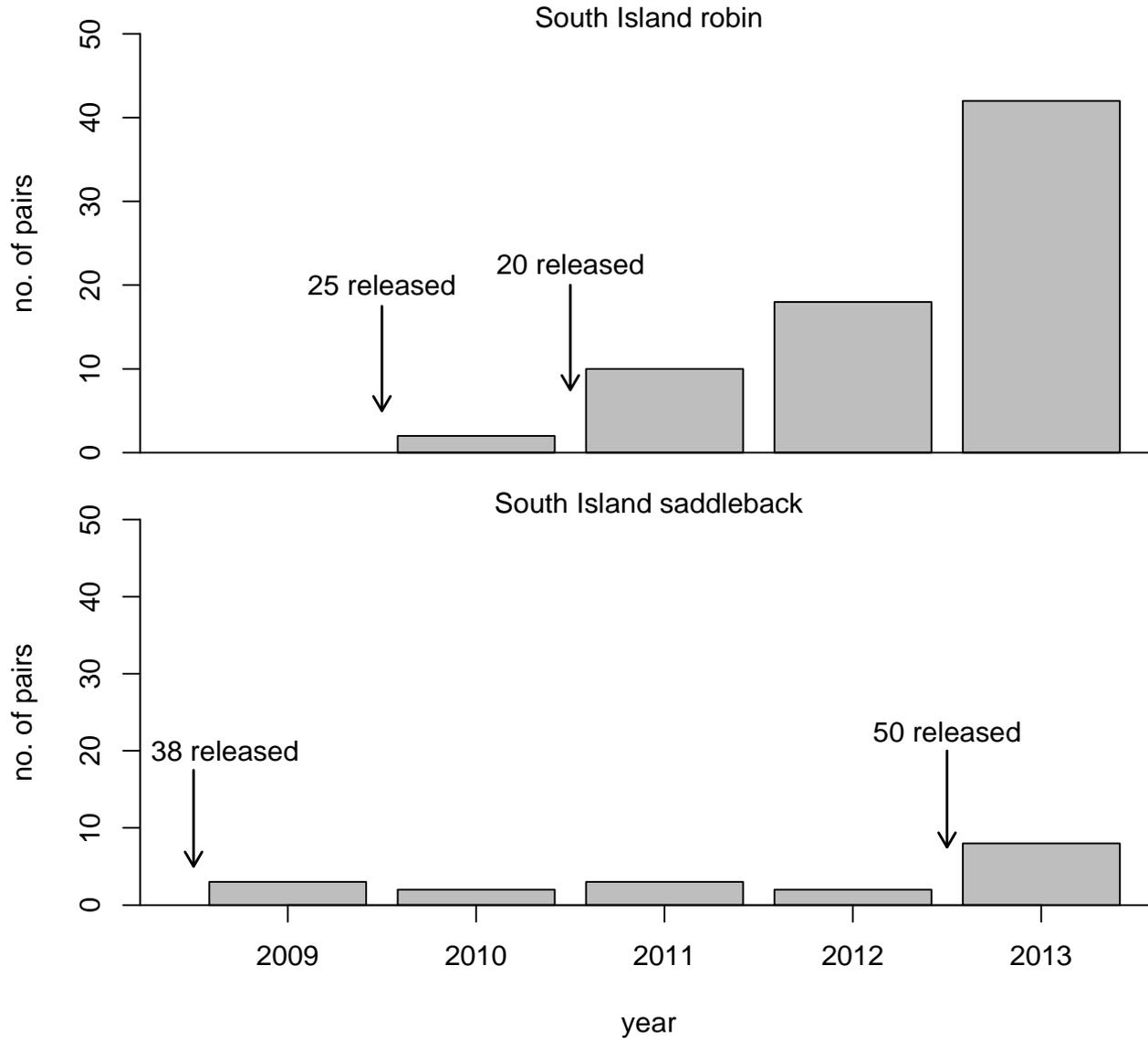
2nd Saddleback transfer from Breaksea Island, Sept. 2013



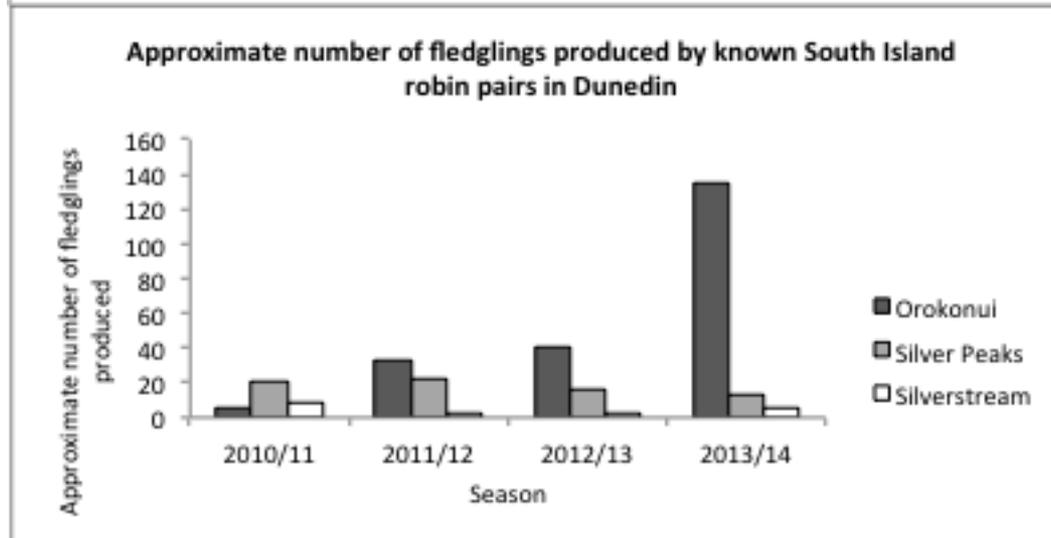
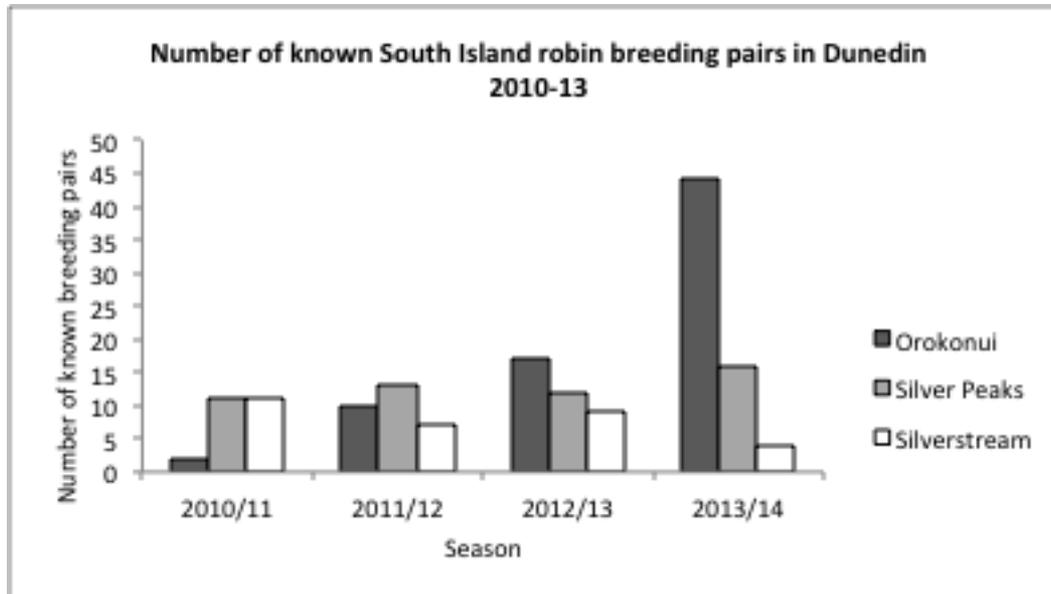
Research technicians and students monitoring robins and saddlebacks in Orokonui Ecosantuary

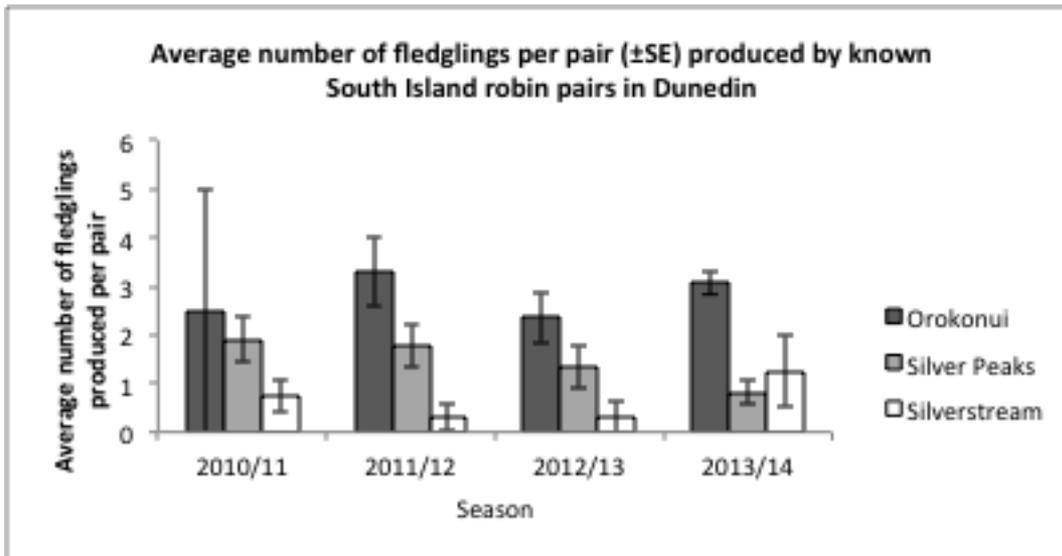
Variation in establishment success of robins and saddlebacks

[Mainland reintroductions often require two releases]



Variation in reproductive success among robin pairs





There are three sites in the Dunedin area where South Island robins are now present. Silver Peaks (exotic forest) and Silverstream (native forest) both have introduced predators (e.g. rats, stoats & possums) that kill adult robins and predate their nests. The robins inside Orokonui Ecosactuary were introduced as fledglings/juveniles from Silverstream and Silver Peaks over two seasons (2010 & 2011). Over the last two seasons the Orokonui population has shown strong growth in numbers of breeding pairs and in the total and average number of fledglings produced. However, despite there being no introduced predators, the average number of fledglings per breeding pair is as variable, or even more variable (as measured by the high standard error (\pm SE) above and below the mean), than the other two sites with predators. Our current research is examining whether variation in presence/absence of immunity genes also causes high variation in breeding success, a component of fitness that is difficult to measure when introduced predators are present.