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Reproductive biology of red-crowned kakariki (*Cyanoramphus novaeseelandiae*) on Tiritiri Matangi Island, New Zealand.

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The breeding biology of red-crowned kakariki (*Cyanoramphus novaeseelandiae*) was studied during the 2004-2005 breeding season on Tiritiri Matangi Island, New Zealand. This is the first reproductive study on a translocated population of this species. The aims were: to document clutch size, hatchability and mortality during the nestling stage. Egg laying peaked in December with an average clutch size of 6 eggs (range 1-9). Most females immediately commenced incubation with the first egg which resulted in asynchronous hatching. Hatchability was low when compared to a natural population (37.6% in this study vs 83.6%). Unhatched eggs include infertile, cracked and dead embryos. Mortality was higher for last hatched chicks as with other parrot species. It is not clear if reduced hatchability is associated with environmental conditions or with the small founder population size (84 birds released between 1974-1976), as has been suggested for other New Zealand birds. If reduced hatchability represents a fitness cost of small founder size management of the red-crowned kakariki would benefit from analyses of genetic diversity of remaining populations. Similarly, larger and more genetically diverse founder population sizes could be considered in future translocation programs.