

New Zealand fairy tern: endangered or common? A study using mitochondrial DNA

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The New Zealand fairy tern (*Sterna nereis davisae*) is one of the rarest native bird species, with an estimated population size of only 30 individuals. Nationally listed as 'Acutely Threatened - Nationally Critical', the New Zealand Department of Conservation Recovery Plan for this species has been implemented since 1997. This Plan is now under re-assessment and several issues have been raised including particular concerns about the level of endemism and genetic relatedness of the New Zealand fairy tern population to the larger breeding populations in Australia and New Caledonia. We sequenced the NADH subunit 2 (ND2) region of the mitochondrial DNA, with samples collected from New Zealand, New Caledonia and Australia. The results show that fairy tern populations in all three locations are genetically distinct, with very restricted gene flow. The single fairy tern mitochondrial DNA haplotype found in New Zealand is not found elsewhere, indicating that the continuation of the Recovery Plan to conserve and expand this distinct population is warranted. The primary result of this study is also consistent with previous research that found morphological and behavioural differences between the main breeding populations.