

Koekoeā quest – uncovering secrets of the long-tailed cuckoo

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Koekoeā / long-tailed cuckoo are unique to Aotearoa New Zealand, and they are declining. Like pīpīwharau – their smaller, more common relative – the annual arrival of koekoeā here in spring, and departure for tropical destinations in autumn, has long captured imaginations, yet there are huge gaps in our knowledge of this taonga. Their epic migration and brood parasitism approach to parenting makes it challenging to get a clear understanding of their vulnerabilities. These fascinating traits also challenge common conservation management actions. Decline of their hosts – especially pōpokotea in the North Island and mohua in the South Island – has been followed by decline and local extinction of koekoeā populations, but when new populations of these hosts have been established (e.g., through translocation to ecosanctuaries or intensive pest control in mainland forests), koekoeā have not returned. Understanding why, and how to change this, is crucial for their conservation. On top of that, the huge non-breeding range of koekoeā exposes them to a range of threats far from our shores, such as habitat loss and extreme weather events. If birds from different parts of Aotearoa go to different areas of the Pacific, their loss from part of their range could have cascading effects thousands of km away.

With support from the Birds NZ Research Fund, Manaaki Whenua – Landcare Research (now an internal group within the Bioeconomy Science Institute) and DOC are working to better understand koekoeā movement in Aotearoa, migratory connectivity between populations, and to assess the current population size and whether remaining koekoeā populations are genetically isolated. These are important first steps toward improving their conservation.

During the 2024/25 summer breeding season, we attached tracking tags to 13 koekoeā. Five of these birds have so far been tracked migrating to Bougainville, the Marshall Islands, Fiji and Tonga, revealing non-stop flights of 2–4 days. We wait and hope to receive data from other tags when they return to New Zealand. We now plan to capture and tag more birds in 2025/26. For genomic analysis, we are also collecting DNA samples from the captured birds, and from birds found injured or freshly dead (for example from collision with windows), and we are asking for public help with this:

- For injured koekoeā, please phone 0800 DOC HOT (0800 362 468), or contact your nearest DOC office or native bird rescue. Then, please let us know too so we can liaise with them.
- For freshly-dead koekoeā, please put it in a plastic bag, freeze it, and contact Neil Fitzgerald fitzgeraldn@landcareresearch.co.nz as soon as possible.



Neil Fitzgerald & Terry Greene at work



GPS-tagged long-tailed cuckoo