



19-E-0470/ docCM6032678

12 August 2019

s9(2)(a)

Dear s9(2)(a)

Thank you for your note to the Department of Conservation dated 15 July, posted on the fyi website, answering our response to your previous OIA.

As we discuss below, while the source of the information you are relying on is not clear, much of its substance appears to be based on misapprehension, or a misstatement of facts which does not stand scientific scrutiny. Accordingly, we have decided to provide further information to assist your understanding of the matters raised. Before addressing the points mentioned in your note, we present a few general facts about our kiwi conservation work.

DOC works in partnerships to save kiwi

“In scale and breadth, kiwi recovery is one of the most complex and successful conservation partnerships in Aoteroa/New Zealand”.

Kiwi Recovery Plan (2018-2028).

The Department of Conservation has been working to recover kiwi populations for nearly 30 years. The Department has well over a hundred partnerships in this work, including tangata whenua, community groups, philanthropists, captive facilities, academics and scientists. The results have been documents in Kiwi Recovery Plans, reports and journal articles since the early 1990s. For an introduction to this work, we suggest you read the latest Kiwi Recovery Plan (2018-2028), available here: www.doc.govt.nz/nature/native-animals/birds/birds-a-z/kiwi/docs-work/

Conservation management is increasing kiwi numbers:

There are currently around 70,000 kiwi in New Zealand. Only 24 % of kiwi are under a conservation management regime, leaving 76% of kiwi populations unmanaged.

Kiwi populations that are under conservation management are increasing, whereas populations that are not being managed are decreasing at approximately 2% per year.

Each kiwi species/taxa has a different percentage of its population under management, ranging from 2% for Rakiura tokoeka to 100% for little spotted kiwi.

This graph from the Kiwi Recovery Plan shows that populations of the four rarest kiwi taxa are increasing. Kiwi species/taxa above the zero line are increasing and below the 0% growth line are decreasing. Substantial additional effort is required to reverse the overall potential decline of 2% per annum (without management).

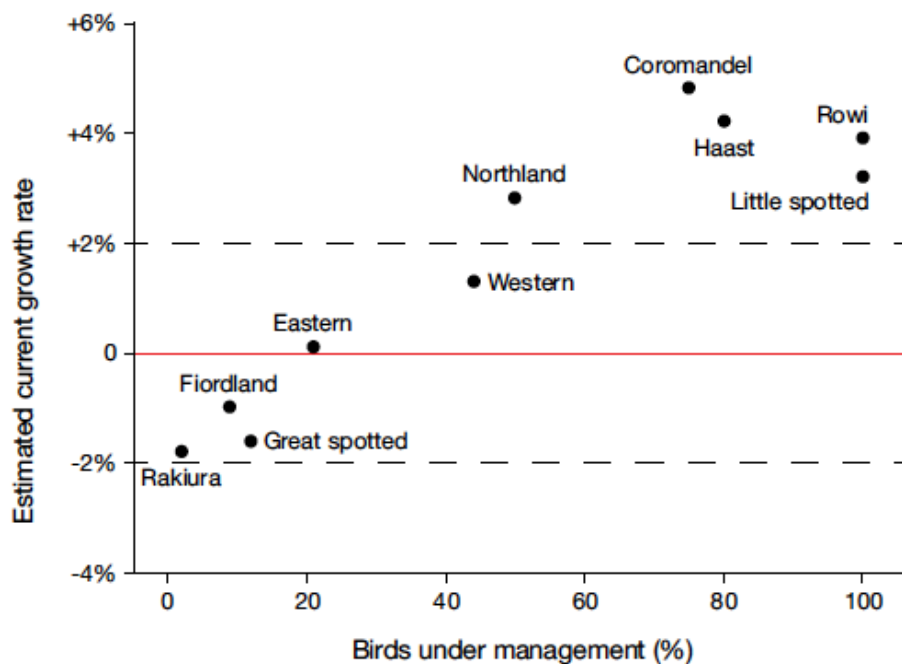


Figure 6. from Kiwi Recovery Plan (2018-2028), p.14.
The relationship between the proportion of the kiwi population that is managed and the estimated rates of annual population increase or decrease for ten types of kiwi (adapted from Innes et al. 2015).

1080 helps kiwi breed successfully

There are four main types of kiwi conservation management:

- Operation Nest Egg
- Kohanga (sanctuaries)
- Trapping - with episodic use of toxin every 5-7 years
- Aerial 1080 every 3-7 years

However, most managed kiwi are protected by a combination of trapping and aerial 1080.

In managed populations, chick survival can be as high as 60%, but without predator control chick survival is only about 6%. Where there is no management, few kiwi chicks survive to become reproductive adults because they are predated, mostly by

stoats and feral cats. In many areas, the management of stoats alone is enough to turn kiwi population trajectories around.

“[Aerial 1080] operations provide a significant benefit to kiwi by creating a window where all resident stoat, and likely all resident ferret, are killed and their numbers are suppressed long enough for the kiwi to have survival and recruitment levels that are well above the threshold required to maintain their population.”

Robertson et al, 2019. Landscape-scale applications of 1080 pesticide benefit North Island brown kiwi (*Apteryx mantelli*) and New Zealand fantail (*Rhipidura fuliginosa*) in Tongariro Forest, New Zealand p.12.

www.doc.govt.nz/globalassets/documents/conservation/threats-and-impacts/pest-control/landscape-scale-applications-1080-benefit-ni-kiwi-hugh-robertson.pdf

No monitored kiwi has been killed by 1080

600 kiwi nationwide have been monitored through aerial and ground- based 1080 pest control operations since the 1990s. None of the kiwi has been poisoned.

www.doc.govt.nz/our-work/tiakina-nga-manu/tiakina-nga-manu-monitoring-results/kiwi-monitoring/

Now that we have introduced our kiwi recovery programme, your specific criticisms are addressed below:

- **The ERMA Review** made no statement about 1080 affecting the breeding capabilities of kiwi. (Appendix B examined developmental and reproductive studies on rats, mustelids and sheep and concluded that further studies would be desirable, but not essential).
- **The New Zealand Conservation Trust (NZCT)** cites information from the DOC Kiwi Recovery Plan: *“approximately 70,000 kiwi are left in New Zealand - 200 years ago there were millions. By the turn of the 21st century, there were fewer than 100,000. Nine out of ten kiwi chicks born in the wild die before they are six months old. Most are killed by predators”*.
<http://nzconservationtrust.org.nz/>.

We have not found any reference by the NZCT to the figures you quote.

- **Rat plagues are driven by mast seeding**, which we explain here:
www.doc.govt.nz/our-work/tiakina-nga-manu/predator-plague-cycle/

Manaaki Whenua Landcare Research supports this explanation
www.landcareresearch.co.nz/publications/innovation-stories/2013-stories/predicting-mast-seeding

More advanced information about managing the relationship between mast seeding and predator numbers is available here:

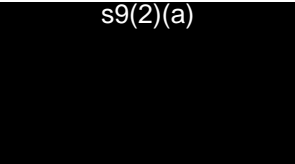
Elliott, G. and Kemp, J. (2016), Large-scale pest control in New Zealand beech forests. *Ecol Manag Restor*, 17: 200-209
www.doc.govt.nz/globalassets/documents/about-doc/oia/2019/oia-19-e-0251-attachment-5.pdf

In conclusion, evidence-based research carried out over 25 years shows our work is increasing managed kiwi populations.

Please note that this letter (with your personal details removed) will be published on the Department's website.

Yours sincerely

s9(2)(a)



Amber Bill
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for Director General