Department of Conservation
Te Papa Atawhai

18-E-0778 - 5593278

11 October 2018

[redacted]

Dear [redacted]

Thank you for your Official Information Act request to the Department of Conservation, dated 30 September 2018. You requested the following:

What is the estimated population change for North Island Brown Kiwi between 1990 and 2018 for (a) the North Island, (b) for Northland, and (c) for the Bay of Islands?

Your questions regarding the estimated population change for North Island brown kiwi between 1990 and 2018 are unable to be answered precisely. However, existing Department of Conservation records have been analysed and estimates and extrapolations have been done to create some useful information in answer to your questions.

The first initial estimate of the population size of North Island Brown Kiwi carried out by department staff was 35,000 birds in the North Island in 1996. The latest information regarding the North Island, based on the Kiwi Recovery Plan (2018-2028) estimates the population at 25,100.

The original estimate did not separate out a figure for Northland. The first published estimate for Northland was 8000 birds in 2008. If we assume that Northland populations mirrored the pattern of decline of the North Island population between 1990 and 2008 of 3% per annum, then the 1990 Northland population would have been approximately 13,500 birds in 1996.

In the period 2008 to 2018, the population of Brown Kiwi in Northland has increased, mainly as a result of the massive predator control efforts in eastern and southern Northland by community groups, Northland Regional Council and Department of Conservation. The 2018 Northland population estimate is 8600 birds, but this is based on modelled growth rates from the number of birds thought to be under different forms of management across Northland rather than being based on any actual census of birds.

We are unable to break the estimate down into subregions of Northland, such as the Bay of Islands, but it is in the eastern portion of Northland where growth in the annual call rate of kiwi has been greatest in the same period.

The best data we have are the call counts which were undertaken most years at six sites around the Bay of Islands since 1995 as part of the Northland-wide kiwi call monitoring regime. Calculations from the data presented in a 2016 report (as shown in the table) shows that the average call rate across the six sites increased by 3.6% per annum in the 21 years from 1995 to 2016 inclusive.

This average call rate varied from an average decline of 2% per annum at Waitangi 12 (a compartmentalised area within the Waitangi forest) to a 5.9% per annum increase at Tikitikioure. The data suggests that Waitangi 12 increased until about 2004, then declined steeply at a rate that would suggest adult deaths rather than recruitment failure. The Mt Bledisloe result is affected by a huge decline from 27 calls/hr in 1995 to 11 in 1996 and 5.5 in 1997 and a slow increase since then to about 10 calls per hour.

Listening site	Change per annum
Marsden Cross	+3.6
Puketotara	+1.1
Rangitane	+1.7
Waitangi 12	-2.0
Mt Bledisloe	+0.1
Tikitikioure	+5.9
Average	+3.6

It is acknowledged that although this information is not specific, it does provide good indicative figures as to growth and decline for Brown Kiwi in the Bay of Islands area. However, as noted above, it is not possible to provide greater accuracy from the department's existing data.

Please note that this letter (with your personal details removed) and enclosed documents will be published on the department's website

If you wish to discuss this with the department, please contact:

Yours sincerely

Sue Reed-Thomas
Director, Operations
Northern North Island