



OIA 18-E-1039/doccm 5653519

28 January 2019

[REDACTED]
[REDACTED]

Dear [REDACTED]

Thank you for your Official Information Act request to the Department of Conservation, dated 8 December 2018. You requested the following:

26 MILLION BIRDS KILLED BY PREDATORS

- 1. Please explain how your science staff came to the conclusion that 26 million birds are being killed every year from predation, as is regularly stated in news items on TV and in newspapers?*
- 2. Please provide the numbers and show your mathematical workings that demonstrate how you reached the 26 million figure. Please include any models that were created and any extrapolations from data or estimates.*
- 3. What evidence do you have to justify your claim that 26 million birds are being killed by predation every year?*
- 4. Do you test birds for 1080 and anticoagulant residues, to determine if they were predated on, or scavenged following poisoning? Note: Toxins are known to incapacitate birds and animals and could make them slower and more susceptible to predation. I have a Powerpoint of Landcare Research studies showing (1) 78% of road-killed hawks tested positive for at least one anticoagulant. Some had as many as four different types of anticoagulants in them. (2) 50% of beach-wrecked penguins conducted by LR in the North and South Island, tested positive for at least one anticoagulant. Large numbers of birds have also tested positive for 1080 poison or been found dead after 1080 drops (Spurr and Powlesland).*
- 5. Do you have a Standard Operating Procedure around testing dead native species for toxin residues? If so please provide the SOP.*

*NGA MANU IMAGES OF THE POSSUM AND RAT RAIDING BIRD NESTS,
EATING EGGS AND CHICKS*

A number of photographs are used in Department of Conservation publications, that were taken by Nga Manu images. These images show a possum and rat eating chicks and eggs.

- 1. Were these images staged or set up in any kind of staged or artificial environment or in a studio? If so, what was used and how was the environment manipulated? Note: I attended a lecture where a well-known wildlife photographer stated that he takes photos such as these ones in a studio set up in his garage because it takes too long to do this in the wild.*
- 2. Were props used in these photos? If so, what props were used? Were things added to the tree that assisted the animals to access the nest, such as vines or platforms?*
- 3. Were lures used to attract the animals to the nests?*
- 4. Were the animals used in the photos live, wild animals or were they captured or domesticated and living in a confined area or were they taxidermied animals? Were they anything but truly wild and natural?*
- 5. If these animals were captive, was food withheld from them before the photographs were taken?*
- 6. What equipment was used in the taking of the photos? Lighting, etc. How were the photos taken (for instance, were they motion-activated, or was a person there for the whole time and can confirm what happened during this scene)? If so, who was this person or people?*
- 7. What did it cost you for these photos and did you commission these photos?*
- 8. What were your specific instructions to Nga Manu Images (or agent selling the photos) in relation to what you wanted?*
- 9. Please include copies of correspondence with Nga Manu Images (or agent operating on behalf of), as well as tenders or procurement documents. If you purchased these photos in a way other than through an official procurement process, or you obtained them from someone other than Nga Manu Images, please include documents that show how this transaction happened.*

LOU SANSON STATEMENT ON TELEVISION ABOUT THREATS BY ANTI-1080 PROTESTERS

- 1. Lou stated on television, in relation to 1080 protesters, that "In the last year, wheels were slashed, rocks were thrown through windows and tyres were unbolted." How many instances of these things actually happened, and how many were threats to do these things?*
- 2. Of the things that actually happened, how do you know that these things were done by anti-1080 protesters?*
- 3. If DOC staff were threatened, how do you know the person that made the threat is an anti-1080 protester?*

EUGENIE SAGE'S COMMENT ON NEWSHUB ABOUT THREATS

Eugenie Sage stated on Newshub that anti-1080 extremists have engaged in not just threats, but potentially deadly action. She was quoted as saying: "Tampering with vehicles, shooting down helicopters, putting wires across valleys to bring helicopters down - they're completely unacceptable." I assume this means that these things have actually happened.

- 1. Please provide all details of these ACTUAL incidents relating to wires across valleys to bring helicopters down, shooting down helicopters etc, with date and time that the action that was taken, and whether or not the people who committed these acts have been apprehended.*
- 2. How do you know it was anti-1080 protesters that acted out, or made these threats? Or is it an assumption made by DOC and the Minister of Conservation?*

Your questions and our responses are listed below:

26 MILLION BIRDS KILLED BY PREDATORS

- 1. Please explain how your science staff came to the conclusion that 26 million birds are being killed every year from predation, as is regularly stated in news items on TV and in newspapers?*

This estimate came from Landcare Research scientist John Innes, not from Department of Conservation staff. Scientists do not usually calculate national totals of fauna because such figures cannot be exact and would serve no scientific purpose. Innes acknowledges the 26 million figure to be only an estimate, but roughly accurate, nevertheless. He produced the estimate for journalist Graeme Hill who published it in the Forest and Bird magazine # 346, November 2012, page 49. It was intended to help non-scientists visualize the magnitude of loss of our native bird life to predation.

The calculation is based on the research review by Innes, J., Kelly, D., Overton, J. M., & Gillies, C. (2010). Predation and other factors currently limiting New Zealand forest birds. *New Zealand Journal of Ecology*, 34(1).

This article is publicly available at <https://newzealandecology.org/nzje/2911>

Department scientists are in agreement that predators are the major cause of nest failure across all habitats in New Zealand.

2. Please provide the numbers and show your mathematical workings that demonstrate how you reached the 26 million figure. Please include any models that were created and any extrapolations from data or estimates.

Native forest covers 23% of NZ = 5,980,000 ha. If there are on average 5 native bird nests per ha per annum, that is 29,900,000 nesting attempts. The mean failure rate of forest bird nests across all species is 73% (see Table 3 in Innes et al. article linked above) i.e. 21,827,000 attempts. If on average there are 2 eggs or chicks per attempt, that is 43,654,000 eggs and chicks. Predation is known to cause 61% of failures (see Table 3, Innes et al.) i.e. 26,628,940 eggs and chicks are killed by predators each year.

Please note this is a conservative result. It underestimates the number of nests per ha per year, and the numbers of eggs per nest. It excludes sitting adult birds killed by predators, and birds killed while roosting (i.e. not nesting). It also excludes native birds killed by predators in non-native forest (the other ca 70% of NZ forest), and of course excludes all exotic birds killed by predators. The actual total of all these will be much larger than 26 million.

Regarding all factors limiting New Zealand forest birds, Innes et al (2010) concluded:

1. Predation by introduced pest mammals continues to be primarily responsible for current declines and limitation of New Zealand forest birds at the national level, the same conclusion derived by Holdaway (1999), Worthy and Holdaway (2002) and Tennyson (2010) for historic declines.
2. There is an unknown, but probably small, additional role for both food availability and habitat clearance, although neither factor by itself can explain the loss of any taxon.
3. The resultant small populations are then vulnerable to stochastic events, such as disease, extreme weather or arrival of a new predator species, and may become extinct.
4. Predator control may restore the abundance of small populations but cannot (without translocation or managed immigration) recover lost genetic variation if the population becomes severely bottlenecked. The likely impacts of such genetic losses on long-term population survival in the face of new threats, such as climate change, are poorly understood.
5. Both inbreeding depression and food shortage may slow recovery rates when limitation by predation is alleviated.

6. Forest loss is clearly primarily responsible for forest bird decline or extinction in some regions or localities where no or little forest is left, and habitat restoration is a necessary precursor to forest bird re-establishment there.

3. What evidence do you have to justify your claim that 26 million birds are being killed by predation every year?

Research about the nesting success of New Zealand forest birds without predator management is listed in Innes et al. (2010) page 91, Table 3.

Innes, J., Kelly, D., Overton, J. M., & Gillies, C. (2010). Predation and other factors currently limiting New Zealand forest birds. *New Zealand Journal of Ecology*, 34(1). <https://newzealandecology.org/nzje/2911>

Please also refer to the monitoring results on the Department of Conservation website www.doc.govt.nz/our-work/battle-for-our-birds/battle-for-our-birds-monitoring-results/. This shows that whio, kea, rifleman/titipounamu, robin/toutouwai, rock wren/tuke, South Island kākā and yellowhead/mohua all raised more chicks after predator control than they did before.

You may also be interested in recent research of southern Fiordland tokoeka (kiwi) which showed that without pest control, every monitored chick was killed by stoats. www.doc.govt.nz/our-work/save-our-iconic-kiwi/

4. Do you test birds for 1080 and anticoagulant residues, to determine if they were predated on, or scavenged following poisoning? Note: Toxins are known to incapacitate birds and animals and could make them slower and more susceptible to predation. I have a Powerpoint of Landcare Research studies showing (1) 78% of road-killed hawks tested positive for at least one anticoagulant. Some had as many as four different types of anticoagulants in them. (2) 50% of beach-wrecked penguins conducted by LR in the North and South Island, tested positive for at least one anticoagulant. Large numbers of birds have also tested positive for 1080 poison or been found dead after 1080 drops (Spurr and Powlesland).

The department does not consider that toxin residues in native birds would make a species significantly more vulnerable to predation. This is because evidence shows that more birds are killed by predators in areas where vertebrate pesticides have NOT been used. The department carefully balances risks of pest control against the benefits. These benefits can be substantial where introduced mammals threaten native species with extinction.

5. Do you have a Standard Operating Procedure around testing dead native species for toxin residues? If so, please provide the SOP.

A copy of the Vertebrate Pesticide Residue Database SOP is attached.

*NGA MANU IMAGES OF THE POSSUM AND RAT RAIDING BIRD NESTS,
EATING EGGS AND CHICKS*

A number of photographs are used in Department of Conservation publications, that were taken by Nga Manu images. These images show a possum and rat eating chicks and eggs.

Context:

There have been persistent attempts on social media to discredit photographic evidence of possums and rats preying on birds, nestlings and eggs, by claiming these are staged or doctored images.

Nga Manu images used in department publications have not been commissioned or purchased. Nor have we instructed the photographer in any way. These images were obtained from the website www.ngamanuimages.org.nz/. They are made available free of charge for conservation advocacy and education purposes, and for non-commercial personal use.

The department holds no official information about these images. However, we support the work of the Nga Manu Trust, which we believe is ethical and represented fairly on their website. We have no reason to believe the images were taken in a studio or digitally manipulated to misrepresent the circumstances. Neither do we believe the animals were manipulated, trained or stuffed.

The Nga Manu photograph of the possum and rat at a thrush's nest was taken in 2007, and David Mudge's explanation of how he took the shot has been on the public record for many years. For example, see Hansford, D. (2016). *Protecting Paradise: 1080 and the Fight to Save New Zealand's Wildlife*. Nelson: Potton & Burton, p.117. The images were captured by infrared camera traps set up near wild birds' nests overnight, when the photographer was not present. The only manipulation involved in the possum and rat image was that a vine was pinned back to get a clearer shot of the nest.

Your questions about the images, and our responses are listed below:

1. *Were these images staged or set up in any kind of staged or artificial environment or in a studio? If so, what was used and how was the environment manipulated? Note: I attended a lecture where a well-known wildlife photographer stated that he takes photos such as these ones in a studio set up in his garage because it takes too long to do this in the wild.*
2. *Were props used in these photos? If so, what props were used? Were things added to the tree that assisted the animals to access the nest, such as vines or platforms?*
3. *Were lures used to attract the animals to the nests?*

4. *Were the animals used in the photos live, wild animals or were they captured or domesticated and living in a confined area or were they taxidermied animals? Were they anything but truly wild and natural?*
5. *If these animals were captive, was food withheld from them before the photographs were taken?*
6. *What equipment was used in the taking of the photos? Lighting, etc. How were the photos taken (for instance, were they motion-activated, or was a person there for the whole time and can confirm what happened during this scene)? If so, who was this person or people?*

The department does not hold any of the information for questions 1-5, since it was not responsible for the photographs.

7. *What did it cost you for these photos and did you commission these photos?*
8. *What were your specific instructions to Nga Manu Images (or agent selling the photos) in relation to what you wanted?*
9. *Please include copies of correspondence with Nga Manu Images (or agent operating on behalf of), as well as tenders or procurement documents. If you purchased these photos in a way other than through an official procurement process, or you obtained them from someone other than Nga Manu Images, please include documents that show how this transaction happened.*

The department does not hold any of the information for questions 6-8. The images were not commissioned or purchased, so there has been no correspondence.

*LOU SANSON AND MINISTER SAGE MEDIA COMMENTS ON THREATS
BY ANTI-1080 PROTESTERS*

Context:

You have recently received answers to your OIA 18-E-0930, which gives the background to your questions. The department has received threats, harassment and abuse in the field, in DOC buildings and facilities, on the telephone, in emails and letters, and online in social media. Until the middle of last year department staff did not routinely record these incidents. We knew of incidents occurring, but they were normalized and accepted as part of the work. The department has only recently set up a process to record the information you seek.

*LOU SANSON STATEMENT ON TELEVISION ABOUT THREATS BY ANTI-
1080 PROTESTERS*

1. *Lou stated on television, in relation to 1080 protesters, that "In the last year, wheels were slashed, rocks were thrown through windows and tyres were unbolted." How many instances of these things actually happened, and how many were threats to do these things?*

The department has records of five separate instances where wheel nuts on vehicles appear to have been deliberately loosened or removed. In each situation department staff made judgments on plausible causes of the incidents and, suspecting that the loosening had happened as a deliberate action, referred the matter to the NZ Police. We have recorded that the NZ Police have created files on the incidents but have no further knowledge on what actions the NZ Police undertook in each situation.

2. *Of the things that actually happened, how do you know that these things were done by anti-1080 protesters?*
3. *If DOC staff were threatened, how do you know the person that made the threat is an anti-1080 protester?*

It is not always possible to know whether threats or criminal incidents have been perpetrated by anti-1080 protesters. However, in many cases the persons making threats have been driving vehicles displaying anti 1080 slogans, or part of an anti-1080 hikoi, or linked to anti-1080 websites. In one case we have a record of a department vehicle having 2 tyres stabbed after verbal abuse about 1080 from hunters. It is reasonable to assume these threats and incidents are by anti-1080 protesters.

EUGENIE SAGE'S COMMENT ON NEWSHUB ABOUT THREATS

1. *Please provide all details of these ACTUAL incidents relating to wires across valleys to bring helicopters down, shooting down helicopters etc, with date and time that the action that was taken, and whether or not the people who committed these acts have been apprehended.*

Tampering with vehicles has been recorded as in the answer to question 1 about Lou Sanson's comments, above. Putting wires across valleys and shooting down helicopters were threats that the Minister rightly regarded as potentially deadly actions.

2. *How do you know it was anti-1080 protesters that acted out, or made these threats? Or is it an assumption made by DOC and the Minister of Conservation?*

The stringing of wires across valleys was in relation to the department's proposed tahr cull, not 1080. The threats to shot down helicopters were largely 1080. We know this because they were on 1080 Facebook pages, and/or in Facebook Posts where the topic of conversation was 1080. Please refer to the information previously supplied to you in answer to OIA 18-E-0930.

The following documents fall within the scope of your request and are attached:

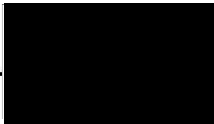
Item	Date	Document description	Decision
1	6/10/2015	Vertebrate Pesticides Residues Database SOP	Released in part

I have decided to release the relevant parts of the document listed above, subject to information being withheld under Section 9(2)(a) of the Official Information Act – to protect the privacy of natural persons.

In making my decision, I have considered the public interest considerations in section 9(1) of the Official Information Act.

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

Yours sincerely



Matt Barnett
 Director Threats, Biodiversity (Acting)
 for Director-General