



19-E-0564 / DOC 6063099

10 September 2019

Dianne Maxwell
via *FYI.org.nz*

Dear Ms Maxwell

Thank you for the Official Information Act (OIA) request you submitted to the Office of Hon Eugenie Sage on 7 August 2019, regarding kiwi populations in areas with, and without, pest control. The Minister has transferred your request to the Department of Conservation to provide a response.

Before considering your request, we have provided some contextual information that is relevant to your request.

No monitored kiwi have died as a direct result of 1080 poisoning

The Department has studied the effects of 1080 operations on more than 600 monitored kiwi and found that none of those kiwi died as a result of 1080 poisoning. In fact, 1080 operations provide a significant benefit to kiwi by creating a window where all resident stoats (and likely all resident ferrets) are killed and their numbers are suppressed long enough for kiwi to have survival and recruitment levels that are well above the threshold required to maintain their population.¹

The following published research papers support these findings and suggest that kiwi are most likely to die as a result of predation or impact with vehicles, rather than as a result of 1080 poisoning:

- H Robertson et al., “Experimental management of Brown Kiwi *Apteryx mantelli* in central Northland, New Zealand”, *Bird Conservation International* (2010);
- H Robertson et al., “Landscape-scale applications of 1080 pesticide benefit North Island brown kiwi (*Apteryx mantelli*) and New Zealand fantail (*Rhipidura fuliginosa*) in Tongariro Forest, New Zealand” *Notornis* (2019) Vol. 66: 1-15;
- H Robertson et al., “Survival of brown kiwi exposed to 1080 poison used for control of brushtail possums in Northland, New Zealand” *Wildlife Research* (1999) 26, 209-214; and
- RJ Pierce, and W Sporle, “Causes of kiwi mortality in Northland”, *Conservation Advisory Science Notes No. 169* (1997).

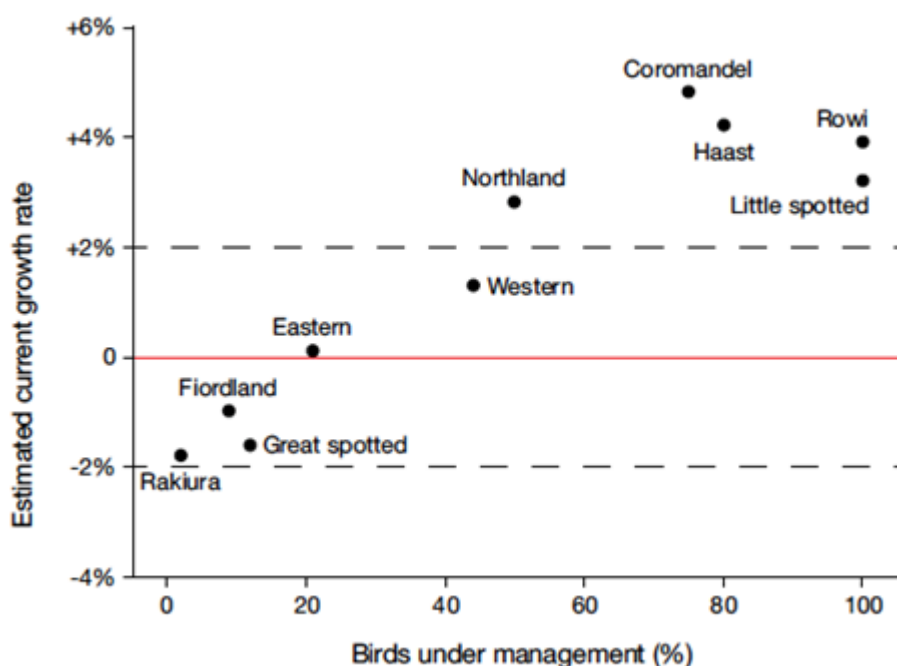
¹ H Robertson et al., “Landscape-scale applications of 1080 pesticide benefit North Island brown kiwi (*Apteryx mantelli*) and New Zealand fantail (*Rhipidura fuliginosa*) in Tongariro Forest, New Zealand” *Notornis* (2019) Vol. 66: 1-15 at p.12

DOC works in partnerships to save kiwi

There are approximately 70,000 kiwi in New Zealand. At present, only around 24% of these kiwi are under a conservation management regime, leaving 76% of kiwi populations unmanaged.² Kiwi populations that are under conservation management are increasing, however populations that are not being managed are decreasing.

The Department has been working to recover kiwi populations for nearly 30 years. In doing so, it has established over a hundred partnerships, including with tangata whenua, community groups, philanthropists, captive facilities, academics and scientists. For an introduction to this work, we suggest you read the latest Kiwi Recovery Plan (2018-2028), which can be accessed via the following link: www.doc.govt.nz/nature/native-animals/birds/birds-a-z/kiwi/docs-work/.

The following graph from the Kiwi Recovery Plan (2018-2028) illustrates the relationship between the proportion of each kiwi population that is managed and the estimated rates of annual population increase or decrease for ten types of kiwi.



Your OIA request

The information you have requested is held by a number of DOC offices across the country, in both electronic and physical form.

For example, information relating to kiwi numbers is held by local DOC offices that are responsible for monitoring kiwi within their respective regions. The broad scope of your request, particularly in relation to kiwi numbers from the past 20 years, also

² J Innes et al, "Saving a national icon: preliminary estimation of the additional cost of achieving kiwi population stability or 2% growth" *Landcare Research contract report LC2136 prepared for Kiwi for kiwis* (2015).

means some information is likely to be captured in physical documents that have been archived and are stored at offsite archive storage sites. To respond to your request, we will therefore need to consult with each local DOC office and collate the information they hold, and check that collated data against information captured in archived physical files.

This is also the case with aerial 1080 and other pest control operations that have been carried out by the Department. The nature and scope of your request therefore means responding to that request (to the extent we hold that information) requires substantial collation and research. We are therefore refusing your request under section 18(f) of the OIA.

We have carefully considered our obligations under section 18A of the OIA which imposes a duty to consider charging for the work required to grant a request or extending the time limit to respond before refusing a request under section 18(f). Because of the scale of the necessary work, as well as the volume of requests we are presently dealing with, we have determined that it is not reasonably practicable to adopt either of those options in this instance. In taking this position we have concluded that the time and resource required would be unreasonably burdensome on the Department. Granting your request would unduly interfere with our day to day operations including those under the OIA generally.

For the avoidance of doubt, we note that the Department does not hold information about *all* kiwi populations in New Zealand, nor does it hold information about *all* pest control operations that are carried out in New Zealand. We note that a number of agencies and entities outside of the Department engage in kiwi conservation work and conduct pest control operations. We are not aware of any agency that would have a single centralised record of all the information you seek.

To the extent it assists your understanding of some of the issues you have raised, we are providing you with information held by the Department in respect of kiwi that are monitored by the Department.

1) *Causes of kiwi deaths*

The Department has collated data on the causes of kiwi deaths in Northland. However, this data only captures information relating to kiwi deaths that have been reported to the Department between 1996 and 2018.

The Department has also collated information relating to radio-tagged kiwi that have died on DOC monitoring sites between 2016 to 2018.

We are providing you with copies of both these sets of data as they may provide you with some context around the causes of kiwi deaths in Northland and across the Department's various monitoring sites. These are set out at Appendices 1 and 2 respectively (both attached to this letter).

2) *Kiwi numbers in areas with no pest control*

A study carried out by DOC staff compared the population growth of brown kiwi under different management regimes, including an unmanaged regime that had no pest control. The results of that study are set out in the published article

“Experimental management of Brown Kiwi Apteryx mantelli in central Northland, New Zealand”, which can be accessed via the following link:
<https://doi.org/10.1017/S0959270910000444>.

3) *Kiwi numbers in areas with ground pest control only*

Between 2002 to 2012, DOC staff studied the effects of landscape-scale stoat trapping on kiwi populations in the Murchison Mountains. The study compared the productivity and survival of southern brown kiwi in areas with and without trapping networks. It was found that kiwi chick survival was significantly higher in the ‘trapped’ areas in comparison to those in ‘untrapped’ areas.

More information about this study can be found in the published article *“Landscape-scale trapping of stoats (Mustela erminea) benefits tokoeka (Apteryx australis) in the Murchison Mountains, Fiordland, New Zealand”*, which can be accessed via the following link: <https://www.notornis.osnz.org.nz/node/4333>.

In 2000, DOC staff also analysed the effects of conservation management (by trapping pests and removing kiwi eggs and chicks from nests to avoid any risk of predation) within five kiwi sanctuaries. Population modelling for the first five years suggested that kiwi numbers in all five sanctuaries would increase as a result of the conservation management. More detail about that analysis is set out in the published article *“Varied success from the landscape-scale management of kiwi Apteryx spp. in five sanctuaries in New Zealand”* which can be accessed via the following link: <https://doi.org/10.1017/S0959270912000044>.

You have the right to seek an investigation and review by the Ombudsman of this decision. Information about how you can make a complaint is available at www.ombudsman.parliament.nz or freephone 0800 802 602.

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

Yours sincerely



Amber Bill
Director Threats – Biodiversity
For Director-General

Appendix 1

Reported kiwi deaths in Northland (1996 - 2018)

Year	District	Age	Cause of death	Comments
1996	Bay of Islands	Adult	Dog	Died from dog bites
1996	Bay of Islands	Sub-adult	Unknown	
1996	Bay of Islands	Sub-adult	Suspected dog	
1996	Bay of Islands	Adult	Unknown	Possibly injured during land clearing or by predator
1996	Bay of Islands	Adult	Dog	Found on beach Aroha Is. Teeth marks legs, back & neck
1996	Bay of Islands		Unknown	Bird found dead in Paddock approx 2 months ago
1996	Bay of Islands	Sub-adult	Dog (pet)	Killed in backyard under clump of grass
1996	Bay of Islands		Suspected dog	Bird found dead in Paddock approx 2 months ago
1996	Bay of Islands		Vehicle	
1996	Bay of Islands		Dog	Supposedly killed by visiting dogs approx 6-8 weeks ago
1996	Bay of Islands		Dog (pet)	Killed by domestic pet Cattle dog killed juv. Kiwi in nesting burrow-owner looking into intensive training for dog. Parent of killed bird could not be found after the attack, egg present in burrow was therefore removed
1996	Bay of Islands	Sub-adult	Dog (cattle)	
1996	Bay of Islands		Unknown	
1996	Bay of Islands		Suspected dog	
1997	Bay of Islands		Vehicle	
1997	Bay of Islands		Suspected dog	
1997	Bay of Islands	Chick	Mustelid	Mustelid
1997	Bay of Islands	Adult	Dog	Pair killed in nesting burrow
1997	Bay of Islands	Adult	Suspected dog	Found decomposing in backyard; pig dogs next door.
1997	Bay of Islands	Adult	Dog	Band R33063. Found dead on firebreak. Puncture marks
1997	Bay of Islands	Sub-adult	Unknown	

1997	Bay of Islands		Vehicle	
1997	Bay of Islands		Vehicle	Buried
1997	Bay of Islands		Dog	Bird was injured by dog-spent 1 week at Native Bird recovery Centre before its death (22/07/97)
1997	Bay of Islands	Sub-adult	Trap	Timms trap
1997	Bay of Islands	Sub-adult	Trap	Timms trap baited with cinnamon/apple
1997	Bay of Islands	Adult	Vehicle	
1997	Bay of Islands	Adult	Vehicle	
1997	Bay of Islands		Vehicle	Decomposed body on roadside, 4 - 6 wks old.
1997	Bay of Islands	Sub-adult	Misadventure	
1998	Bay of Islands	Chick	Unknown	
1998	Bay of Islands		Mustelid	
1998	Bay of Islands		Mustelid	
1998	Bay of Islands		Mustelid	
1998	Bay of Islands		Mustelid	
1998	Bay of Islands	Adult	Vehicle	Broken neck. First observed 27/5/98.
1998	Bay of Islands		Dog	On private property
1998	Bay of Islands	Adult	Unknown	Blood about head. Possibly hit by falling branch as it was under one. Swollen cloaca.
1998	Bay of Islands	Adult	Vehicle	Found at Marsden Cross gate
1998	Bay of Islands	Adult	Vehicle	
1998	Bay of Islands	Adult	Vehicle	Picked up approx 1am 15/7/98. Estimated time of death 11pm 14/7/98
1998	Bay of Islands	Sub-adult	Drowned?	100m from Kurapari Rd towards sea, out back of houses (Gibson subdivision). Lying in ditch with water in it after heavy rain.
1998	Bay of Islands		Dog (pet)	Found on driveway to house. Fresh

1998	Bay of Islands		Dog	Broken neck.
1998	Bay of Islands	Adult	Vehicle	
1998	Bay of Islands	Sub-adult	Vehicle	
1998	Bay of Islands		Natural	
1998	Bay of Islands	Adult	Vehicle	Killed night of 18/11. Found on Opito Bay Rd at top of Rangitane Scenic Reserve. Tip of bill smashed Off to the side of west side of road. Plastic surround of a licence plate found by the bird
1998	Bay of Islands		Vehicle	
1998	Bay of Islands	Sub-adult	Vehicle	Found opposite Orangewood Rd. Headless
1999	Bay of Islands	Sub-adult	Natural	
1999	Bay of Islands		Misadventure	
1999	Bay of Islands	Adult	Vehicle	Found in middle of road.
1999	Bay of Islands		Unknown	Found on neighbours lawn 3m from bush edge, 25m from rd. Feathers in clumps. Large bald patch right rump, blood on edge of bill, no obvious wounds or puncture marks
1999	Bay of Islands		Suspected dog	Found on neighbours lawn 3m from bush edge, 25m from rd. Feathers in clumps. Large bald patch right rump, blood on edge of bill, no obvious wounds or puncture marks
1999	Bay of Islands	Sub-adult	Suspected dog	Found on ground with feathers scattered around. Injury around head and underbelly. Owner has 1 dog & 1 cat. Kiwi frozen when brought in.
1999	Bay of Islands	Adult	Vehicle	Handed in to Aroha Island
1999	Bay of Islands		Dog (farm)	Dog footprints seen in area. Found by farmer with stock.
2000	Bay of Islands		Unknown	
2000	Bay of Islands		Vehicle	
2000	Bay of Islands	Sub-adult	Vehicle	Found on road in early morning
2000	Bay of Islands		Unknown	
2000	Bay of Islands	Adult	Vehicle?	Moderate condition

2000	Bay of Islands		Vehicle	Found next to road ~11am, still warm. Decayed kiwi found same place Dec/Jan
2000	Bay of Islands		Dog (farm)	Found on observers property inside his electric fence. He admitted his dogs had killed it. Decomposing when brought in.
2000	Bay of Islands	Sub-adult	Vehicle	Incident on 26 March 2000
2000	Bay of Islands		Vehicle	
2000	Bay of Islands	Adult	Vehicle?	Found 2m from side of driveway off Hatch property and 20m from Kurapari Rd. Good cond.
2000	Bay of Islands		Unknown	
2000	Bay of Islands		Vehicle	
2000	Bay of Islands		vehicle	
2000	Bay of Islands	Adult	Vehicle	Hit by vehicle turning into driveway, Rangitane Loop Rd. Died on way to vet.
2000	Bay of Islands		Unknown	Decomposed on side of road
2000	Bay of Islands		vehicle	
2000	Bay of Islands		Vehicle	Tyre mark over body
2000	Bay of Islands		Drowned?	Found in sea at Aroha Island. Decomposing when brought in
2000	Bay of Islands	Adult	Dog	Skinned and body to Massey
2000	Bay of Islands		Unknown	
2000	Bay of Islands		Unknown	Dead kiwi dropped off at FNDC Kaikohe
2000	Bay of Islands		Suspected dog	Dead kiwi dropped off at FNDC Kaikohe
2001	Bay of Islands		Unknown	
2001	Bay of Islands		Dog	Bird missing but all its feathers on driveway of house dogs nearby
2001	Bay of Islands		Suspected dog	Bird found on track
2001	Bay of Islands		Suspected dog	
2001	Bay of Islands		Vehicle	

2001	Bay of Islands		vehicle	
2001	Bay of Islands	Adult	Vehicle	Bird found on road
2001	Bay of Islands		Vehicle	
2001	Bay of Islands	Adult	Vehicle	
2001	Bay of Islands		vehicle	
2001	Bay of Islands	Adult	Vehicle	Found beside road
2001	Bay of Islands		Drowned	Drowned in Cooper's pond
2001	Bay of Islands		Suspected dog	Head crushed, hole in side of nest where bird was dragged out.
2001	Bay of Islands		Vehicle	
2001	Bay of Islands	Sub-adult	Vehicle	Observer heard vehicle travelling at speed, when he followed he found bird freshly killed
2002	Bay of Islands		Vehicle	
2002	Bay of Islands		Vehicle	
2002	Bay of Islands		Unknown	
2002	Bay of Islands	Adult	Vehicle	Found on r/side by local couple handed to Arhoa. Went to rec centre as still alive.
2002	Bay of Islands		Vehicle	Same bird that was run over a year ago and released
2002	Bay of Islands	Sub-adult	Predation	Found on track, fresh. Only head/neck/shoulder, one foot and some feathers found all in one area less than 300mm in diameter
2002	Bay of Islands	Sub-adult	Suspected dog	Found on track, fresh. Only head/neck/shoulder, one foot and some feathers found all in one area less than 300mm in diameter
2002	Bay of Islands	Chick	Suspected dog	Found on trapline
2002	Bay of Islands	Sub-adult	Dog	Children found kiwi freshly killed in orchard across the road from their home. Had a large bite wound to the body.
2002	Bay of Islands	Adult	Vehicle	
2002	Bay of Islands	Adult	Suspected dog	Found by school children on farmland. On track on northern side of Takou Stream (across from airstrip)

2002	Bay of Islands		Suspected dog	Have a poodle dog. Found by caretaker under pines 50m from house. Brought in by trapper on the property
2003	Bay of Islands	Sub-adult	Suspected dog	Property owners have a dog and a cat, stray farm dogs seen on property. Wife found kiwi dead on their front lawn.
2003	Bay of Islands		Dog (wandering)	Property owner phoned FNDC dog ranger re 2 dogs found on his property close to dead kiwi. Female dog seen to have kiwi feathers around mouth. Dogs impounded same day
2003	Bay of Islands		Vehicle	Found beside road
2003	Bay of Islands	Adult	Dog	Autopsy confirmed
2003	Bay of Islands		Suspected dog	Retrieved from person on Cape Brett Track
2003	Bay of Islands		Vehicle	Run over at 8.30pm 16/3. Took to vet who treated it for shock. Was dead when vets arrived next morning.
2003	Bay of Islands		Dog (pig)	Pig dog owner phoned in incident. Dog killed kiwi on hunting trip.
2003	Bay of Islands	Adult	Dog	Transmitterised adult female. Mortality signal detected 16/6. Badly broken leg, severe bruising, puncture wound. Found under tangle fern in swamp to north of Endowment Forest.
2003	Bay of Islands		Vehicle	Tip of bill injured, possibly internals. Taken to vet
2003	Bay of Islands		Vehicle	Found on roadside, taken to Aroha, then brought to BOIAO
2003	Bay of Islands		Dog (pet)	Killed by pet golden retriever. Kiwi found dead in back yard by property owner. Pet dog left off chain overnight from 10pm - 7am
2003	Bay of Islands		Vehicle	
2003	Bay of Islands		Drowned	Drowned in pond on farm
2003	Bay of Islands		Unknown	Decomposed. Found beside paper road
2003	Bay of Islands		Suspected dog	Decomposed. Found beside paper road
2003	Bay of Islands	Sub-adult	Dog	
2004	Bay of Islands		Dog	
2004	Bay of Islands		Vehicle	Still warm when retrieved

2004	Bay of Islands	Adult	Suspected dog	Picked up by Opito Bay resident Second hand info sounded as if people didn't want to report it.
2004	Bay of Islands		Suspected dog	
2004	Bay of Islands		Dog (pet)	Went to Kamo vets then to WBRC. Bitten by a Jack Russell
2004	Bay of Islands	Adult	Dog	
2004	Bay of Islands		Vehicle	Young bird completely pulverized by vehicle.
2004	Bay of Islands		Vehicle	Bird hit on road by driver, couldn't stop
2004	Bay of Islands	Adult	Dog	Several large puncture wounds. Wind blew roof off trap and kiwi was caught in Fenn trap, severely injured leg
2004	Bay of Islands		Trap	
2004	Bay of Islands		Mustelid	Stoat. Only leg remaining
2004	Bay of Islands		Mustelid	Stoat. Only leg and ribcage remaining
2004	Bay of Islands		Unknown	Decomposed - cause of death unknown
2004	Bay of Islands	Adult	Suspected dog	Body intact when found under fallen pine. Approx 3-4 weeks dead. No obvious predation. Weight and bill not recorded at time. Bill measured on skeleton but not easy to find cere.
2004	Bay of Islands		Unknown	Transmitted bird "Tess". Band RA-0245. Body intact when found under fallen pine. Approx 3-4 weeks dead. No obvious predation. Weight and bill not recorded at time. Bill measured on skeleton but not easy to find cere.
2004	Bay of Islands		Suspected dog	
2005	Bay of Islands		Vehicle	Found on road, assumed to have been hit by car
2005	Bay of Islands		Unknown	RAMA/R-59146 TY 58; Band and Tx recovered - too decomposed to determine COD; needs GPS co-ordinates
2005	Bay of Islands		Suspected dog	Too decomposed to determine COD; needs GPS co-ordinates
2005	Bay of Islands		Dog (wandering)	Dog attack; dogs not on leash- getting possums & killed kiwi in same hole as possum
2005	Bay of Islands		Vehicle	Found on road during the day, no obvious injuries; blood around bill

2005	Bay of Islands		Vehicle	Found dead on road returning from Opito Bay. "Its mate was freaking out in the drain, on the side of the road"
2005	Bay of Islands		Drowned	Fell in cesspit near watertank Neighbour found it on side of road in morning still warm. Brought into DOC office at 13h30. Has brood patch, seems to be very good condition.
2005	Bay of Islands		Vehicle?	
2005	Bay of Islands		Unknown	Found on rocks above high water mark "some distance from any road". No puncture marks. Appears to have been hit due to big bruised area and loss of feathers on one side.
2005	Bay of Islands		Vehicle	Picked up at 6h45 on side of road, warm and bleeding. No puncture marks. Lots of feathers missing on right flank and some on left side. Some bleeding from mouth.
2005	Bay of Islands		Suspected dog	Young male kiwi left outside visitor centre. Found by staff in the morning of 16/12/05
2005	Bay of Islands		Unknown	Tip of bill damaged
2005	Bay of Islands		Vehicle	Found in road Found Kiwi dead returning home from Opito Bay at 8.15pm 3 bends before rangitane near Aratika, its mate was freaking out on the side of the road.
2006	Bay of Islands		vehicle	
2006	Bay of Islands	Sub-adult	Dog	Bird picked up at Opito Bay Boat ramp; bird still warm and bleeding. Autopsy confirmed shaken by a large dog.
2006	Bay of Islands		Dog	Dog was observed to kill bird
2006	Bay of Islands		Vehicle	Bird was found on the road in the early morning 200m NE of Old basy Rd Te AnuAnu Rd intersection. Bird was still warm
2006	Bay of Islands		Suspected dog	Observed the remains of a kiwi under a cow pat. Likely dog
2006	Bay of Islands		Suspected dog	Found 1 m from road, was still warm but no vehicles heard. Disturbance heard outside landowners house and located bird. Thought he may have disturbed something at the scene. Suspected dog kill. Puncture left side of rib cage and feathers missing from hind legs consistent with being dogged
2006	Bay of Islands		Suspected dog	Bird found at high tide, likely to be dog kill, no obvious damage

2006	Bay of Islands		Predation	Kiwi found in driveway in early morning. Looks to be independent juvenile. Predation possibly by cat. Most feathers gone, gut gone, 1 x leg bone stripped but still attached by skin
2006	Bay of Islands		Trap	Fenntrap - broken skull
2006	Bay of Islands		Vehicle	Bird has ticks otherwise in good condition. Bird on road at Bulls gorge and run over by vehicle at 5.50. Bird found on the side of the road (100m) North side Wharau Rd east of Quince's landing on uphill section after leaving seal. Bird too decomposed to bring in. Ron mentioned a big problem with handling dogs.
2006	Bay of Islands		Suspected dog	Household has two dogs. Kiwi has trauma behind head & on back of upper neck - consistent with small dog or mustelid attack
2006	Bay of Islands		Suspected dog	
2006	Bay of Islands		Vehicle	
2006	Bay of Islands		Vehicle	Bird picked up at 20.00 hrs by DOC staff and monitored overnight and taken to vet the next morning. Bird- trauma to last 10 mm of lower bill, trauma to tip of upper bill, birds feet cold, paralyzed legs. Vet euthanised it.
2006	Bay of Islands		Unknown	Bruising under skin
2006	Bay of Islands	Adult	Dog	Bruising under the skin
2006	Bay of Islands		Vehicle	Damage to right rump and left shoulder likely vehicle
2006	Bay of Islands		Vehicle	This is the 3rd dead kiwi observer has found within a 3year period on her road, she would like Doc to place warning signs along the road to attract attention to kiwi
2007	Bay of Islands		Vehicle	Big bird in good condition. Found lying in grass about a metre off the tarseal Kiwi found on the way to Springbank school, cold but still flexible, took it to school for the day for kids to look at bird, said it was the second bird found at the same location, suspects road kill
2007	Bay of Islands		Vehicle	
2007	Bay of Islands	Adult	Suspected dog	Too decomposed
2007	Bay of Islands		Suspected dog	Warm when found, lots of mites & ticks Bird hung up in tree after flood on farm. Could have been washed down from anywhere around the catchment of the Aratoro block.
2007	Bay of Islands		Unknown	

2007	Bay of Islands	Adult	Vehicle	Birds on Falls Rd at 10 or 11 am on Saturday or Sunday. Hawk was eating it when carcass retrieved.
2007	Bay of Islands		Vehicle	Bird found fresh on centreline at first light. Bird had trauma on underside and lower back and feathers missing. No obvious puncture wounds from a dog. Found 10m off cul de sac road on lawn. Dogs in the area as well.
2007	Bay of Islands		Unknown	Unknown cause.
2007	Bay of Islands		Trap	Fenn trap cover turned over by pigs and exposed trap caught kiwi
2007	Bay of Islands		Vehicle	
2007	Bay of Islands		Vehicle?	
2007	Bay of Islands		Vehicle?	
2007	Bay of Islands	Sub-adult	Vehicle?	Found on edge of road, still fresh, feathers missing from left leg hock, trauma in knee area & broken leg bones. Bird is sub-adult very likely male that was in average/good condition. Ticks around head & under bill
2007	Bay of Islands		Vehicle	Seen run over by vehicle on 21/11/07 at 20.30. Bird still alive but died soon after. Held in freezer until they found out where to bring bird
2007	Bay of Islands	Adult	Dog (pet)	Found outside private residence. Two birds killed by same dog
2008	Bay of Islands		Mustelid	Cat or Stoat?
2008	Bay of Islands		Vehicle	
2008	Bay of Islands		Vehicle	Found on driveway 13/4/08, good condition, ticks replaced by new maggots around face so obviously left after hit, recovered after a day on driveway
2008	Bay of Islands	Sub-adult	Vehicle	Juvenile in good health
2008	Bay of Islands		Vehicle	Found lying on yacht drive
2008	Bay of Islands		Unknown	Found in garden on John's Beach Road property in Doves Bay. No apparent cause of death but bird is emaciated and has some pink lesions on right leg.
2008	Bay of Islands		Vehicle	Found in the morning on the side of driveway. Has damage on one side of torso, no puncture wounds. Looks like it was healthy enough

2008	Bay of Islands	Adult	Dog (pet)	Found on front lawn of fenced property. Feathers missing and teeth marks on lower neck/upper back area and also on left side of neck. Broken left leg with feathers missing on inner left leg. Feathers also missing on right rump area. Otherwise good condition with no ticks.
2009	Whangarei	Chick	Unknown	This chick was very thin last handle. Body is badly decomposed. Chick found just alive outside nest. Had lots of yellow "stuff" coming out of his belly button. Took him to vet, he was fly blown also, not much chance of survival so he was euthanised at vet.
2009	Whangarei	Chick	Natural	
2009	Whangarei	Sub-adult	Unknown	DEAD. Found washed up in flood debris at top of a pool in the swamp, bottom of H. V decomposed so can't see much. Lots of feathers amongst debris. Tx does not have time of death pulses. She was a lovely gentle Lady bird
2009	Bay of Islands		Vehicle	
2009	Bay of Islands	Sub-adult	Unknown	Found by Hansen Road turnoff (near 370 rapid number sign). Either a car or a dog. Is badly decomposed but head attached. This chick was light last time, may have died naturally?
2009	Whangarei	Chick	Unknown	Found dead on surface, no obvious cause of death
2009	Whangarei	Chick	Unknown	Found tx in entrance of hole at base of standing tree. Found a few feathers and part of bone that has been eaten. Hole size etc looks very much like a stoat
2009	Whangarei	Adult	Dog	Pretty good condition Reasonably fresh but maggots in rear passage. Fresh blood at mouth. Dog bits on flanks. 42 mm incisor = very big dog. This bird had previously survived a mustelids attack photos taken
2009	Whangarei	Chick	Mustelid	DEAD signal form hole in bank. Size of hole and appearance makes it very likely a stoat kill. Didn't dig it up
2009	Whangarei	Chick	Mustelid	Has been on mort for a while as unable to get to it. Not much left of bird but area and hole size is very stoaty
2009	Whangarei	Chick	Mustelid	DEAD. Found decomposed body under tall gorse. Likely stoat kill
2009	Whangarei	Chick	Mustelid	DEAD. Found one complete leg bone only all flesh eaten. Found at entrance to hole in rotten log. Hole right size to be stoat

2009	Whangarei	Chick	Mustelid	Dead chick dogged by Rua + Manu. Stoat got to chick before Todd could. Just a fresh leg, upper bill and base of skull and the gut and yold sac and plenty of feathers. 15-20m W of nest
2009	Whangarei	Chick	Mustelid	DEAD. Bird had chk tx (not mort) but found it freshly dead (no more than 24 hours). Fresh blood around head/neck and small hole in chest area to get organs. Stoat.
2009	Whangarei	Chick	Mustelid	DEAD. Found leg bones and tx only. Only 8-10m from Nervous Neds nest in stump marked July 08. Stoat
2009	Whangarei	Chick	Mustelid	DEAD. Tracked mort signal to hole that looked very stoaty. Didn't retrieve anything as need spade to dig out. Same area as recent stoat kills.
2009	Whangarei	Chick	Mustelid	DEAD. Found almost complete skeleton without head, no flesh, rib bones eaten. Less than a week dead. At entrance to a hole - stoaty
2009	Whangarei	Chick	Mustelid	Unable to retrieve bird/tx last time and had another go today with spade. Gave up! Too deep. Very stoaty, lined with pine needles.
2009	Whangarei	chick	Dog (pet)	Observer was walking her two dogs and "found" a freshly dead chick
2009	Whangarei	Adult	Dog	Found dead 1.5-2m below his nest which has been dug out. Evidence of large animal around nest (broken shrubs, earth disturbance), dog prints and dog claw marks around nest and surrounding area. 2 eggs in nest, 1 fertile egg broken - can see foetus - the 2nd egg is still intact and was taken to WNBRC. Kowhai is twisted up between shrubs with large patch of feathers missing on side and big hole in bottom - probably eaten since death. Large amounts of feathers in bunches between bird and nest, evidence of struggle.
2009	Bay of Islands	Adult	Dog (pet)	Bird killed by fox terrier down hole (had to drag dog out, egg in hole was recovered)
2009	Bay of Islands		Dog	Was found alive but died on arrival at vet
2009	Whangarei	Chick	Natural	Found dead on routine trap round. Lying on side in 'normal' posture, no obvious wounds or feather loss, fly blown. X-rayed (no abonormality detected) and body taken to WAO.
2009	Whangarei	Adult	Dog	Dragged from nest, also 2 fertile eggs

2009	Whangarei	Adult	Dog	Oscar found dead lying on belly. Legs splayed behind him. Patch of feather loss with red (old bruising?) flesh and there looks to be puncture wounds. He is well dead and decomposing. Quite a lot of feathers found around body in leaf litter. Post mortem definite dog kill
2009	Whangarei	Adult	Dog	DEAD. On back feet and claws up, head twisted back, chunks of feather around dead site. Obviously been mauled. Not fresh at all. Near a pampas bush with lots of burrow holes in it.
2009	Whangarei	Adult	Dog	Found while walking through bush. Most of the large bones, including the skull and pelvis found on top of same flattened kiokio bones indicate the usual suspect - DOG
2009	Whangarei		Unknown	Seen dead on Marua rd cutting below the golf course. Dead in nest with adult (B/W). Necropsy - no sign of predation but bruising on belly and even up into neck - possible kick victim?
2009	Whangarei	Chick	Natural	
2009	Whangarei	Chick	Unknown	Found chick freshly dead in creek (approx 2 days). Feels like one leg is broken up high but otherwise no visual damage. DEAD. Awaiting full necropsy. Body found on surface near small water way where it hits the fence. Body intact, no sign of predation
2009	Whangarei	Chick	Unknown	DEAD. Found dead in fresh cattle imprint, body is fresh (2-3 days). Left side is down and bill is facing up. Tx was on left leg. I am 90% sure chick has been stood on by a cow. Weighed bird frozen
2009	Whangarei	Chick	Misadventure	
2009	Whangarei	Chick	Mustelid	Found complete bird badly decomposed. Appears that has been dragged until stuck. Site of death indicates likely stoat. Another chick (6C97AE1) found dead same day in same area. Found dead (all of body) under rushes. Decomposed but still bit fleshy. Site of body indicates likely stoat (close to creek and undr cover of rushes). Also found Manioro dead today in same area
2009	Whangarei	Chick	Mustelid	
2009	Whangarei		Unknown	Suspicious of location - checked to find dead bird. Dead for some time (4-6 weeks?) Tx did not switch to Mortality
2009	Whangarei	Chick	Unknown	Pete found just a skeleton, ran scanner over ground and picked up tp number and tp. Turned out to be Itchy who died on 1/08/07 at Thorn's bush which is ages away. We assume that bird was returned to the area and perhaps put just over the fenceline or maybe it was buried and then something has scavenged it?

2009	Whangarei	Chick	Unknown	DEAD. Difficult to tell from what as decomposed. Only approx. 50m from another dead chick (Porky) today. All body including head
2009	Whangarei	Chick	Unknown	DEAD. Difficult to tell from what as decomposed. Only approx. 50m from another dead chick (Torrence) today. All body including head
2009	Whangarei	Chick	Unknown	DEAD. All of body including head. Difficult to say why as decomposed
2010	Whangarei		Unknown	Phoned in with very little data
2010	Bay of Islands	Chick	Drowned	In family pool DEAD. Phone call from landowner to say kiwi chick found dead by dog run in his section. Dog is on chain and has wire the chain can run along. Approx. 36 hours after chick first handled. Picked up the next day
2010	Whangarei	chick	Dog (pet)	DEAD. Found on surface, lying on its left side, back of the neck from base of the head eaten out. Situation very tight, no room for a cat, likely mustelid
2010	Whangarei	Chick	Mustelid	Wild chick found dead on 16/02/10. No obvious injuries. No fly eggs. TH picked up 17/02/10.
2010	Whangarei	Chick	Unknown	Found dead - only leg bones and feet - no flesh - has been dead some time. Chick has been missing since tagged at nest - likely hawk has picked it up
2010	Whangarei	Chick	Predation	Autopsy confirmed
2010	Whangarei	Sub-adult	Dog	DEAD, no body found, tx mort sig tracked to a pile of vegetation in a dry creek, only feathers and tx found
2010	Whangarei	Chick	Unknown	
2010	Bay of Islands		Unknown	Knock to head
2010	Whangarei	Chick	Mustelid	Found only leg bone and feathers in small hole in log. Looks very much like stoat den. He's been dead for some time. 3 weeks? Long way from last handle and out of 1080 area
2010	Whangarei	Chick	Unknown	Found dead by island volunteer close to release site (released on 23/03/10). Frozen and sent for post-mortem
2010	Whangarei	Chick	Unknown	Bird retrieved off road still alive dies early hrs on 6/04/10. Likely head neck damage. No visible external trauma. S Mc Manus pers. Obs.
2010	Bay of Islands	Adult	Vehicle	
2010	Bay of Islands	Adult	vehicle	
2010	Whangarei	Adult	Dog	DOG KILL. In bush in from farm land E-SE side of LFB. Clumps of feathers on ground and stuck to shrubs, extending 5m up hill from body. Neck at strange angle - broken? Very decomposed so can't see tissue wounds. Body 5m above a nest site.

2010	Whangarei	Sub-adult	Suspected dog	appears to have been yet another dog kill, but as it was found on a driveway, vehicle hit is a remote possibility.
2010	Bay of Islands		Vehicle?	Bird in his possession asked him to bring it in. Found on road side.
2010	Whangarei	Chick	Mustelid	Most of body eaten and flyblown. Right thigh and both lower legs intact. Likely stoat predation
2010	Whangarei	Chick	Mustelid	Stoat
2010	Whangarei	Chick	Dog	Dog kill. Feathers missing either side of upper back. No ID
2010	Whangarei		Unknown	No sign of predation
2010	Bay of Islands		Dog (pet)	Kiwi killed by dog and buried by owner and reported by partner. Exhumed by DOC. TM
2010	Bay of Islands	Adult	Vehicle	Female found dead on Horeke Road early morning still warm. Injuries consistent with road kill. SM
2010	Whangarei		Records incomplete	
2010	Whangarei		Dog	
2010	Whangarei		Drowned	DEAD. Bird found dead - presumably drowned in the end of a narrow blocked off culvert
2010	Bay of Islands	Adult	Vehicle	Old female found dead on bridge had been run over a number of times
2010	Bay of Islands	Adult	Vehicle	Builders found bird dead on building site, thought it was killed by a dog, however injuries indicate that it may have survived being run over by a vehicle and died a short distance from road.
2010	Bay of Islands	Adult	Vehicle	Found on road at 1850 hrs likely Car
2010	Bay of Islands	Adult	Vehicle	Found on Road
2010	Bay of Islands		Dog (pet)	Doberman. Dog was in garden, dog bolted and chewed kiwi in long grass/weeds. Dog had been through aversion training in July 2010
2010	Bay of Islands		Vehicle	
2010	Whangarei	Adult	dog	DEAD. Lying under ponga log. Possible bruising on bottom. Dog. Can't find anything else like feathers around the scene. Was on a nest.
2010	Whangarei	Chick	Mustelid	DEAD. Head severed but present. This chick currently only recorded under 38 HH. The Knight's chick. No site description or GPS acc given.
2010	Whangarei	Chick	Unknown	Body intact - Mod state of decomp.
2010	Whangarei	Chick	Mustelid	DEAD. Stuffed 3/4m up a fallen hollow mamaku trunk creek edge. Body brought back to necropsy.
2010	Whangarei	Chick	Mustelid	DEAD. Eaten out under brake in wattles. Body brought back for necropsy. Rippy's chick (69 HH)

2010	Whangarei	Chick	Unknown	DEAD. No apparent cause. No GPS location recorded.
2010	Bay of Islands		Vehicle?	
2010	Whangarei	Chick	Mustelid	DEAD. Mort signal tracked to very tight gully. Bird intact with damage to neck and back of head caved in. No gps given
2010	Whangarei	Chick	Mustelid	Stoat - back of head, down neck all flesh gone. Opened up, eaten out inside. Flesh eaten off 1 leg. Feathers all through warren. Photos taken. Tx turned off for reuse
2010	Bay of Islands		vehicle	Kiwi handed to Kiwi foundation which gave it to DOC on 1/12/2010
2010	Whangarei	Chick	Predation	Seems to be in top of tree. He couldn't get up there cause no branches strong enough. Dropped by a hawk? Seems too high to be stoat dragged
2010	Whangarei	Chick	Mustelid	DEAD. Stoat seen at kill site. Tx hadn't flicked to MORT - bird dead at least 3 days
2010	Whangarei	Chick	Mustelid	DEAD. Stoat. Very fresh, blood around neck area. Have photos
2010	Whangarei	Chick	Mustelid	DEAD. Stoat. Had to dig out 1/2m below surface. Found dead (only 1-2 days). Guts all eaten out and flesh around neck eaten. Another chick without tx also in stoat den (approx week dead)and rat!. Have photos
2010	Whangarei	Chick	Unknown	Body lengthwise in tunnel with feet facing upstream. Eaten parts underneath. Head completely removed, most of body eaten. Left leg eaten, leg bones and lower 2/3 of spine intact. R leg and some of back uneaten. No sign of other body parts in vicinity. Very few feathers at site. Prob eaten elsewhere. Maggots 10-12mm long. Est 5 days or so since death.
2010	Whangarei	Chick	Mustelid	DEAD. Eaten out and headless in creek under runner. Only 5m from last handle site. Stoaticide
2010	Whangarei	Chick	Mustelid	Body lengthwise in tunnel with feet facing upstream. Eaten parts underneath. Head completely removed, most of body eaten. Left leg eaten, leg bones and lower 2/3 of spine intact. R leg and some of back uneaten. No sign of other body parts in vicinity. Very few feathers at site. Prob eaten elsewhere. Maggots 10-12mm long. Est 5 days or so since death.
2011	Whangarei	Chick	Mustelid	DEAD. Hind legs found plus small amount of feathers. Flesh gone off legs, flyblown, intestines moderately rather than severely autolysed. Likely stoat predation
2011	Whangarei	Chick	Mustelid	DEAD. Pelvis and legs only - only 40-50m from Atarau's chick death bed.

2011	Whangarei	Chick	Mustelid	DEAD. 5m from stoat trap 14. Definite stoat. Neck flesh eaten and some flesh from side of body. Found under kikuyu - too tight for cat.
2011	Whangarei	Chick	Unknown	DEAD. Very decomposed. Most of body including head is present
2011	Whangarei	Chick	Mustelid	DEAD. Dismembered and some pieces dragged into the log. Other pieces at entrance. Feathers spread throughout. Only released a week ago.
2011	Whangarei	Chick	Unknown	Just feet left, leg bones and a bit of dried out flesh and a few feather stumps. Looks like scavenged after death
2011	Whangarei	Chick	Mustelid	DEAD. Found foot and leg bone with tx inside ponga that is lying on ground. Laso lots of feathers. Definitely stoat. Didn't bring back any body parts. Bird does not have a tp
2011	Whangarei	Chick	Mustelid	DEAD. Only tx, some of the paunch and smashed femur. Stoat scat found on site
2011	Whangarei	Chick	Mustelid	DEAD. Found dead on slip in paddock. Bit decomposed but appears that neck area may be bruised
2011	Whangarei	Chick	Mustelid	DEAD. In same stoat den as Korako 14/02/11. Not much left of body.
2011	Whangarei	Chick	Mustelid	DEAD. Fresh (1-2 days) in stoat hole. Neck eaten and felsh around one leg. Head still attached to body by skin
2011	Whangarei	Chick	Mustelid	DEAD. Fresh (1-2 days) in stoat hole. Neck eaten and felsh around one leg. Head still attached to body by skin
2011	Whangarei	Chick	Mustelid	DEAD. Only feathers and what looked like pieces of skull found with tx. Bill found less than metre away from tx. Must be very hungry stoat! Too tight for cat or harrier
2011	Whangarei	Chick	Unknown	DEAD. Tx on MORT 4/2/10/3/7 @ 4.30pm. Had moved quite a long way from release site, quite decomposed so cause of death unclear.
2011	Whangarei	Chick	Mustelid	DEAD. On surface of ground. Bones with feet of legs, part of pelvis attached to one leg. Flesh stripped off, feathers also on ground. No other body parts found
2011	Whangarei	Chick	Mustelid	Bird is fresh (1-2 days) and has bruising around neck and head - STOAT
2011	Whangarei	Chick	Mustelid	DEAD. Found head and body separately - Fresh. Appears to be a stoat kill
2011	Whangarei	Chick	Misadventure	DEAD. No obvioius signs of predation however there are lesions on legs and feet ?been hooked up on something? Photos taken. No broken bones deteced or obvious brusing under feathers

2011	Bay of Islands	Adult	unknown	Found dead, very emaciated bird possible disease starvation and dog (no obvious trauma but roaming dogs in the area)
2011	Whangarei	Chick	Mustelid	DEAD. Only feathers and what looked like pieces of skull found with tx. Bill found less than metre away from tx. Must be very hungry stoat! Too tight for cat or harrier
2011	Bay of Islands		Vehicle	Found on side of road
2011	Bay of Islands	Adult	Dog (hunting)	Killed in Hedgerow at night while out hunting DEAD. Freshly dead 1-2 days. Damage and bruising around head/neck. Has been dragged until jammed in tunnel -
2011	Whangarei	Chick	Mustelid	STOAT! Found alive out in the middle of a paddock, died later. Emaciated.
2011	Bay of Islands	Sub-adult	Unknown	In open paddock just outside boundary of LUFB. No sign of predation. Sent to Massey - pathology showed bird died as a result of neural larval migrans
2011	Whangarei	Adult	Natural	
2011	Whangarei	Adult	Dog (pet)	Found on owners deck with dog DNA on it
2011	Bay of Islands		Unknown	Found alive in driveway, Died on the way to BRC
2011	Whangarei		Dog	Positive dog DNA recovered, but not to individual dog level Found floating in a creek pool in Mimiwhangata by a hunter.
2011	Whangarei	Adult	Unknown	Photos taken DOG KILL. Unknown large female. On back, masses of feathers around. Teeth marks and big hole on back. Feathers up hill 12m away also.
2011	Whangarei	Adult	Dog	Injuries to the back of the head, found on a side of a driveway.
2011	Bay of Islands	Sub-adult	Vehicle	
2011	Bay of Islands	Adult	Unknown	Returned to Kerikeri from Bird Recovery centre. Found freshly dead close to nest. Does not look like dog kill, maybe ferret - fresh blood around neck area.
2011	Whangarei	Adult	Mustelid	
2011	Whangarei		Suspected dog	DEAD. Quite rotten, large maggots, feathers gone from bum area and possibly puncture wounds, photos taken. Spoke to surrounding landowners, one has 2 large dogs
2011	Bay of Islands	Adult	unknown	Appear to have bruising around upper body.
2011	Whangarei	Adult	Dog	
2011	Whangarei	Adult	Dog	Wild bird. Found by observer while walking her dogs, dog kill, photos taken, landowners visited to remind them of dog/kiwi issues

2011	Whangarei	Adult	Records incomplete	
2011	Whangarei	Chick	Unknown	DEAD. Had moved quite a long way from release site, quite decomposed so cause of death unclear.
2011	Bay of Islands	Sub-adult	Vehicle	Found on side of road, no sign of cat or dog attack, probably hit by a car
2011	Bay of Islands		Dog (farm)	Found dead by observer after his dog attacked it on his rural farm property (near house) A long distance from any likely habitat.
2012	Whangarei	Adult	Dog	Owner of dog brought it in
2012	Whangarei		Unknown	DEAD. Worn patch in ground under body as if it was a slow death.
2012	Whangarei	Chick	Mustelid	Found DEAD, up to 2 wks, Head and neck missing, appears to have been predated
2012	Whangarei		Unknown	Found dead in siting/lying position, no obvious cause of death.
2012	Whangarei	Chick	Mustelid	Stoat
2012	Whangarei		Unknown	Only skeleton left, no obvious broken bones
2012	Bay of Islands	Adult	Dog	Feathers from both legs missing and lots of trauma. 1 large tooth mark on inside of right leg
2012	Bay of Islands	Adult	Dog	Found 50 m from a house with 8 terrier type dogs running loose. Dog ranger seized 2 dogs
2012	Bay of Islands	Sub-adult	Dog (pet)	Found in dog's mouth in fenced back yard.
2012	Whangarei		Drowned	Wild bird. No tp. Approximated bill length 80; weight 800-1000g. Drowned in goldfish pond 3 weeks ago, only bones and skin left - left in situ.
2012	Whangarei	Adult	Drowned	DEAD. Drowned in pond, no tp, big male or female still growing? Very rotten
2012	Whangarei	Adult	Dog	Dog had been through kiwi aversion training/edge of track
2012	Whangarei	Adult	Dog	Killed by dog that had been through aversion training
2012	Whangarei		Dog (pet)	DEAD. Killed by landowners dog, dog has had aversion. No blood
2012	Bay of Islands	Sub-adult	Drowned	Carcass found at the outlet of the main culvert running through the property. Looked to be a week old. No obvious trauma marks on it. Position of bird strongly suggests that it was washed out of Culvert in recent heavy rain event.
2012	Whangarei	Chick	Mustelid	Tx on mort. Chick has damage/bruising around neck and head - brain cavity has been eaten out. Likely stoat.
2012	Whangarei	Chick	Mustelid	Killed from nest found dead at entrance
2012	Whangarei	Adult	Vehicle	One of three recent road kills
2012	Whangarei	Sub-adult	Vehicle	Lice sent from this bird to TePapa, very good cond. Was xrayed by WNBRC

2012	Whangarei	Chick	Unknown	chick too decomposed to establish cause of death
2012	Bay of Islands	Sub-adult	Dog	
2012	Whangarei	Adult	Dog	4 days dead, advocacy done with locals/ 4th kiwi killed by dogs in this area in 2 years
2012	Whangarei	Sub-adult	Drowned	Drowned in trough
2012	Bay of Islands	Adult	Dog (wandering)	Found the morning after a pig hunter lost two dogs in area
2012	Bay of Islands		Unknown	
2012	Bay of Islands		Unknown	
2012	Bay of Islands		Unknown	
2012	Bay of Islands	Sub-adult	Vehicle?	Some trauma apparent on right shoulder/chest and upper right leg
2012	Bay of Islands	Sub-adult	Drowned	Waterlogged and bloated, found in swimming pool
2012	Bay of Islands	Sub-adult	Vehicle	Badly damaged bird required euthanasia
2012	Whangarei	Chick	Mustelid	Only leg and tx recovered after big dig. Stoat den 50m Sth of nest
2012	Whangarei	Sub-adult	Drowned	Drowned in pool
2012	Bay of Islands	Chick	Trap	Cat trap (leg=hold) set on ground
2012	Bay of Islands	Adult	Dog (wandering)	Most likely attacked by 2 blue heeler dogs that wandered away from owners property
2012	Bay of Islands	Adult	Dog (hunting)	Dog previously kiwi aversion trained
2012	Whangarei	Chick	Predation	More than likely Handsomes second chick was reported found dead, suspected cat
2012	Whangarei	Chick	Unknown	Found by member of public on track
2012	Bay of Islands	Chick	Dog	
2012	Whangarei		Drowned	Mortality signal from middle of dam - presumed drowned. Couldn't recover body.
2012	Bay of Islands		Trap	On Farm. Caught in trap. Action taken: bird rescued and taken to Whangarei recovery centre. Later died.
2012	Bay of Islands		Unknown	Bird reported not recovered Poss dog.
2013	Bay of Islands		Vehicle	Observer Jogging along road am found bird and placed under bush near Matauwhi Bay sign
2013	Bay of Islands	Adult	unknown	
2013	Whangarei	Adult	Dog	Chased into dam by dog

2013	Bay of Islands		Vehicle	
2013	Whangarei	Adult	Vehicle	Found on roadside 6 am. Road kill. Was released at 150th celebration in 2007.
2013	Whangarei	Adult	Mustelid	Tx says lunchtime on the 19th is death time (2-4-10-2-7@4:50pm on the 20/5/13). Eco Gene Report DOC-2522359 indicated stoat DNA
2013	Whangarei	Adult	Unknown	Found by fisherman and handed in a day later after freezing, *bird pretty rotten so not an accurate weight
2013	Whangarei	Sub-adult	dog	Found on cut track next to Hugh Crawford reserve, heavy bruising, kahu plucked
2013	Whangarei	Adult	dog	Private residence
2013	Whangarei		Dog (pet)	Dog kill. Wild bird, no ID. Found beside house, pet dog, owner lives alone and has dog for company and security. Told her to be extra careful, her dog doesn't wander. Another example of a kiwi aversion trained dog taking kiwi.
2013	Bay of Islands	Adult	Unknown	
2013	Bay of Islands	Sub-adult	Dog	Trauma to breast bone, puncture wound
2013	Bay of Islands	Adult	Trap	Caught in kill trap
2013	Bay of Islands	Adult	Vehicle	
2013	Bay of Islands	Sub-adult	Trap	Observer trapping for possums surprised he caught a kiwi in the pine forest, says he raises his traps in the native.
2013	Whangarei		Vehicle	Wild bird. 2nd road kill at site this year and 3rd in recent years. Will put up a "kiwi crossing" sign and another article in local newsletter.
2013	Whangarei	Chick	Mustelid	DEAD. r/62 ck. Killed by stoat. Chick approx. 11 days old
2013	Bay of Islands	Sub-adult	Dog (pet)	Killed by very old terrier dog. Dog escaped from car.
2013	Bay of Islands	Sub-adult	Disease	
2013	Bay of Islands		Dog (pet)	Report of private land owner's dog killed a kiwi. Body not recovered.
2013	Bay of Islands	Chick	Vehicle	Outside Pye's property on road
2013	Bay of Islands	Adult	Dog (pet)	Landowner was gardening, dog killed bird in rank grass 10 metres away
2013	Whangarei	Adult	Drowned	Found dead in old open water tank. Live wild male "Lucky" found with her! Charlottes tx put on Lucky.

2014	Whangarei	Chick	Misadventure	Chick found dead by volunteers. No obvious trauma, may have been an act of misadventure as there are many holes/burrows under the banks by the shore and the tides were unusually high at the time the chick was found
2014	Bay of Islands	Sub-adult	Dog (pet)	Dogs heard on property and injury consistent with dog bite DEAD. Drowned in trough before New Year (has been in freezer while landowner on holiday), trough now has rocks in it. Bird is Darwin's chick from Feb 2013.
2014	Whangarei	Sub-adult	Drowned	Observer found skeletal remains below his house on beach 2 - 3 month old chick?
2014	Bay of Islands	chick	Unknown	Decomposed
2014	Bay of Islands		Unknown	Picked up on private property near a fence, neighbour has dogs.
2014	Bay of Islands	Sub-adult	Suspected dog	
2014	Bay of Islands	Adult	Dog (pet)	Found on back lawn- dog heard at 5am along with screeching.
2014	Bay of Islands	Adult	Vehicle	Found on driveway by the road, probably hit by car
2014	Whangarei	Sub-adult	Suspected dog	Found by landowners on 13/4/14 blood from mouth and bruised chest, landowners have 2 dogs
2014	Whangarei	Sub-adult	Dog (pet)	DOG KILL. Known bird. Found by landowner 13/14/14, put in freezer the next day. Blood from mouth, bruised chest, going rotten. Landowners have two dogs. This is Dallas' chick from Oct 2012.
2014	Bay of Islands	Adult	Vehicle	Hit by car
2014	Bay of Islands	Sub-adult	Predation	Bird found in paddock 100m from house, wound/trauma to the neck, look like small puncture marks.
2014	Whangarei		Drowned	DEAD. Unknown bird. Drowned in swimming pool with cover on - walked on cover. Landowners are removing cover
2014	Whangarei	Adult	Vehicle	Staights before Ngunguru
2014	Bay of Islands	Adult	Vehicle	Found on SH1 outside driveway. Head trauma.
2014	Whangarei	Adult	Vehicle	DEAD. Unknown bird. Road death at some spot as road kills on 22/1/13 and 4/5/13, we have already put in "kiwi crossing" sign here!
2014	Whangarei	Adult	Misadventure	Unknown, wild bird. Hit by car on Whangarei Heads Road by
2014	Whangarei		Vehicle	Kiwi Crossing sign - just N of McLeod Bay
2014	Whangarei	Adult	Mustelid	Ferret
2014	Bay of Islands	Adult	Vehicle	Found on road car kill

2014	Whangarei	Adult	Unknown	DEAD. Leg bones with metal band and tx found in burrow with The Acrobat and Alva who is Gavins old mate. Dead tx still attached to leg
2014	Whangarei		Records incomplete	
2014	Bay of Islands	Adult	Vehicle	Road kill
2014	Bay of Islands	Adult	Trap	Caught in gin trap
2014	Bay of Islands	Adult	Dog	
2014	Bay of Islands	Sub-adult	Dog	Dog kill, poss neighbours dogs
2015	Bay of Islands	Chick	Mustelid	Stoat
2015	Bay of Islands		Unknown	
2015	Whangarei		Dog (pet)	Caught by dog in the backyard.
2015	Whangarei	Chick	Mustelid	DEAD. Stoated. Freshly killed and found stuffed in a hollow ponga. Chick 12 days old and close to 1080 line.
2015	Bay of Islands	Adult	Unknown	Found at bollard in parking area could have been placed there, run over there or killed by dog there. Feathers missing from both flanks no obvious puncture wounds, could be vehicle kill could be dog - indeterminate
2015	Bay of Islands	Sub-adult	Vehicle	Decomposing badly so buried
2015	Bay of Islands	chick	Drowned	Swimming pool
2015	Whangarei	Chick	Natural	No obvious trauma, stretched out body, very fresh, minimal fly strike.
2015	Bay of Islands	Adult	Dog (pet)	Dog kill. Owner found the bird freshly dead in the creek after hearing her dogs barking. Both dogs thought to have been involved in killing the kiwi and both have been through kiwi aversion training. The fox terrier will be moved from the property.
2015	Whangarei		Vehicle	Handed in by public 30m up Kaiatea Rd from ngunguru Rd intersection. Hit by car - flat chest no sign of dog marks
2015	Whangarei	Adult	Vehicle	Run over at 6am and reported. No tp. Wild bred bird.
2015	Bay of Islands	Adult	Suspected dog	Found on driveway, two kiwi together.
2015	Bay of Islands	Sub-adult	Suspected dog	Found on driveway, two kiwi together

2015	Bay of Islands	Adult	Dog	Dog kill. Feathers missing from its back like it had been worried and puncture marks evident.
2015	Whangarei	Adult	Unknown	DEAD. No sign of death. Tx band ok - was handled 17 days ago in PM condition then
2015	Bay of Islands	Adult	Vehicle	Found on Road
2015	Bay of Islands	Adult	Vehicle	Found on road near 35kph sign opposite Stirlings pine block
2015	Bay of Islands	Adult	Vehicle	Found on Rangitane Road alive near Aroha Is driveway
2015	Bay of Islands	Adult	Dog	Found on access road to private property on Wharau Road. Three dogs euthanased after investigation, two owners fined for not ensuring dogs were kept within property at night.
2015	Bay of Islands	Adult	Dog	Found on side of road. Three dogs euthanased after investigation, two owners fined for not ensuring dogs were kept within property at night.
2015	Bay of Islands	Adult	Dog	Found on access road to private property, not far from Wharau Road
2015	Bay of Islands	Adult	Dog	Found on private property not far from Wharau Road. Decomposed. Has been dead for 2 weeks. Appeared to have been worried by a dog. Three dogs euthanased after investigation, two owners fined for not ensuring dogs were kept within property at night.
2015	Bay of Islands	Sub-adult	Dog	Found by Lynsay outside the Russell Cemetry, feathers around the bird cosistant with being worried
2015	Bay of Islands	Adult	Dog	One of seven birds recently killed by a dog along this road. Three dogs euthanased after investigation, two owners fined for not ensuring dogs were kept within property at night.
2015	Bay of Islands	Adult	Vehicle	Found dead Opito Bay Road on the roadside on the 11/07/2015
2015	Whangarei	unknown		Wild bird. Handed in by "Shorty". Freshly dead. Bald patches on both legs, possibly bruising. No other cuts or marks. 120mm of intestine hanging out of anus
2015	Bay of Islands	Adult	Dog	Feathers missing near wing and bruising consistant with dog attack.
2015	Bay of Islands	Adult	Vehicle	Ran over this bird on Ragitane loop Road and had it in his freezer for 5 weeks. Bird in good condition
2015	Bay of Islands	Adult	Dog (pet)	Found in back yard
2015	Bay of Islands	Sub-adult	Dog	Found on farm track out in the open by pighunter
2015	Whangarei	Unknown		DEAD. Skeleton found spread over one square metre. Observer didn't think to report this bird which was severely damaged by a vehcile - buried it.
2015	Bay of Islands	Adult	Vehicle	

2015	Bay of Islands	Adult	Dogs	Pack of kiwi aversion trained dogs
2015	Bay of Islands	Adult	Dog	Dog may have been tied up, needs confirmation.
2015	Bay of Islands	Adult	Dog	Observer saw the bird dead with puncture wounds approx 3 weeks before he rang in on 3/08. Didn't think to call DOC until he heard of other deaths. Three dogs euthanased after investigation, two owners fined for not ensuring dogs were kept within property at night.
2015	Bay of Islands	Adult	Dog (pet)	Children playing with dog on drive, and dog killed kiwi in pampas. Egg recovered.
2015	Bay of Islands		Dog (wandering)	Observer driving home 2230 hrs apprx, saw dog with kiwi in mouth followed it for 800 m approx - no doubt was a kiwi. Dog disappeared down a driveway.
2015	Bay of Islands	Sub-adult	Unknown	
2015	Bay of Islands	Sub-adult	Suspected dog	Considering recent kiwi deaths in area, probable dog kill
2015	Bay of Islands	Adult	Suspected dog	Found in paddock next to fence decomposing, some trauma on right thigh
2015	Whangarei	Adult	Drowned	DEAD. Wild bird - no ID. Very rotten. Drowned in water supply sump - a 2nd drowned adult was also in sump. Water supply now covered! Reported by locals, pictures taken
2015	Whangarei		Trap	From Going Rd
2015	Whangarei		Unknown	Dog or roadkill
2015	Whangarei		Suspected dog	Initially buried for a week before submitted. Found in driveway. Broken bill. Dog or road kill. Will follow up with landowner
2015	Bay of Islands	Adult	Vehicle	Found freshly run over
2015	Bay of Islands	Adult	Vehicle	Found on road
2016	Bay of Islands	Adult	Suspected dog	Found in a paddock on the farm
2016	Whangarei	Adult	Dog	Found dead on track, wounds to left side of back. Autopsy confirmed
2016	Bay of Islands	Chick	Predation	Reported to Puketotara LC, DOC exhumed bird and bought it in. Suspected cat kill
2016	Bay of Islands	Adult	unknown	Had been in the sea for a time. Trauma around front chest area and stomach
2016	Bay of Islands	Chick	Unknown	Found at beginning of driveway

2016	Bay of Islands	Adult	Dog (pet)	Dog killed bird while being walked off lead in the bush on the owners property. The dog had been through avoidance training in Oct 2015.
2016	Bay of Islands		Vehicle	
2016	Bay of Islands		Trap	Found in leg=hold trap.
2016	Bay of Islands	Sub-adult	Drowned	Found drowned in pool
2016	Bay of Islands	Adult	vehicle	Tim found the bird dead on the side of the road
2016	Whangarei	Adult	Vehicle	Found on road 100m past Nook Rd. No tp found
2016	Bay of Islands		vehicle	
2016	Whangarei	Adult	Unknown	Found long dead in entrance to burrow. Band removed but body left in situ. Alva had been first found in 1996. She had been Gavins mate (he died) then The Acrobats)
2016	Whangarei	Adult	Vehicle	Sent to Massey, confirmed hit by car
2016	Whangarei	Adult	Vehicle	Whangarei Heads Rd north of Craig Rd
2016	Whangarei	Adult	Vehicle	Sent to Massey, confirmed hit by car
2016	Whangarei	Adult	Dog	Killed by worker's dog. Dog removed from property. RIP Taonga FIRST RECORD. In nest with Dad (Whitu) and sibling (7688FOC). Chick timer data shows 16 days old. No injuries but has been dead about 2 days (maggots). Worst area is belly - umbilicus.
2016	Whangarei	Chick	Unknown	
2016	Whangarei		Unknown	Found by public at start of MM walking track and handed into WNBRC. Broken leg, unknown cause of death. Stoat. Only leg left, fresh (1-2 days dead). Similar spot to where LC136 stoated.
2017	Whangarei	Chick	Mustelid	
2017	Whangarei	Adult	Unknown	Dead wild kiwi, female. Had been dead for many weeks, just bones and feathers left. No tp. On track. Couldn't see any broken bones, will get someone to have a closer look.
2017	Whangarei		Drowned	DEAD, found drowned in irrigation pond. Has moved approx. 600m in a month
2017	Whangarei	Chick	Drowned	Found by landowner. Drowned in pool. 350m from nest where it hatched in Feb. Grown 630g in less than 4 months Under flax with signs of recent flooding. No sign of external injury or trauma. No wounds or bite marks. Likely natural causes - misadventure? Body cavity filled with maggots >1 week old.
2017	Whangarei	Chick	Misadventure	
2017	Whangarei	Adult	Suspected dog	Looks like a dog kill - really decomposed

2017	Whangarei	Sub-adult	Vehicle	Road kill in evening about 8pm. Body to DOC
2017	Whangarei		Vehicle	Road kill in morning about 6am. Body to DOC
2017	Whangarei		Dog	No microchip found, dog kill
2017	Whangarei		Drowned	
2014	Whangarei		Records incomplete	
2017	Whangarei		Trap	Found injured on track, taken to vets and euthanised
2017	Whangarei		Trap	Treatment attempted
2017	Whangarei		Drowned	Found in drum - presumed drowned
2018	Whangarei		Vehicle	Picked up next to road
2018	Whangarei	Adult	Drowned	Drowned in goldfish pond, couldn't get out of slippery side
2018	Bay of Islands		Dog	Found dead kiwi on road side by a private driveway.
2018	Bay of Islands		Dog	Found dead kiwi on the same morning as above but on a different driveway.
2018	Bay of Islands		Dog	Found dead kiwi on the same morning as above but at a different property
2018	Bay of Islands		Dog	Found kiwi in the evening of the 22nd on their lawn
2018	Bay of Islands		Dog	Found kiwi in evening on driveway
2018	Bay of Islands		Dog	One further kiwi handed in found in the same area as the above four kiwi
2018	Bay of Islands	Sub-adult	Dog	Found in well-known area for dog-walkers
2018	Whangarei		Dog	Found by observer walking his dogs. Autopsy confirmed dog
2018	Whangarei		Dog	Kiwi found in same area as another kiwi found one week prior. Autopsy confirmed dog
2018	Whangarei		Dog	Three additional bird found confirmed dog kill this year, but no records in database

Appendix 2

Deaths of radio tracked kiwi on DOC-managed projects (2016-2018)

Population	Project	Number of known kiwi deaths per annum				Causes of known kiwi deaths					Comments
		2016	2017	2018	TOTAL	Predation	Human	Disease	Natural	Unknown	
Tokoeka											
Haast	Haast tokoeka	9 (7x chicks)	12 (10x chicks)	3 (3x chicks)	24	6 (5x stoat, 1x cat)		1	8 (6x starvation, 2x misadventure)	9	2016/17 was an <i>in-situ</i> survival study. Most deaths were chicks. 2017/18 was also meant to be an <i>in-situ</i> study, but due to the drought (and the closure of traps) all chicks were removed from the sanctuary and moved to creche sites. It is highly likely that if they had remained in the sanctuary most would have died either of starvation or predation.
North Fiordland		0	0	0	0						No monitoring during this time
South Fiordland	Shy lake Southern Fiordland Tokoeka Recruitment study	0	8	2	10	10 (stoat)					Year 1 of chick recruitment study, all deaths were chicks less than 3 weeks old. 6/10 were known stoat; 4/10 have supporting evidence but carcass not recovered and so not sure. No pest control of any sort has ever yet been undertaken in the area.
Rakiura		0	0	0	0						Mason Bay: 25 birds radio tracked for 2 weeks then transmitters removed - all birds fine Port Adventure: 25 birds radio tracked for 2 weeks then transmitters removed - all birds fine
Rowi											
	Okarito	11 (10x chicks/ juveniles)	4 (2x chicks/ juveniles)	5 (5x chicks/ juveniles)	20	4 (falcon)	1 (car impact)	4 (2x disease related 2x health related)	6 (1x leg trauma 1x drowning, 4x drownings/ misadventure)	5	Some deaths were unknown as kiwi were too decomposed when found.
Great spotted kiwi											
Northwest Nelson	Roaring Lion BFOB study	1	2	3	6				4	2	The 2016 death was an adult death of apparently natural causes. 2017 deaths were chicks <4 weeks old, carcasses not found. 2018 deaths were chicks <4 weeks old - one died naturally at hatch, 2 were apparently natural (not predated) but cause unknown.
Nelson Lakes	Rotoiti Nature Recovery Project	2 (juveniles)	0	0	2	1 (cat)			1 (fell down a hole)		
Westport		0	0	0	0						No monitoring studies during this time
Paparoa Range	Te Wharau SOIK study	0	0	4	4	4 (stoat)					No Pest control undertaken. All deaths were chicks <1-week-old. One carcass retrieved, all others had stoats visiting on camera before disappearance
Arthur's Pass		0	0	0	0						No monitoring during this time

Little spotted kiwi											
	Shakespear Regional Park kiwi translocation	0	0	0	0						No individuals died during the DOC managed translocation project, 20 transmitters on prior to translocation - no deaths
Brown kiwi											
Northland	Kauri Coast - Trounson Park	14 (chicks)	2	1	17	12 chicks (1 ferret kill confirmed the rest likely stoat) 1 adult (dog kill)	1 (unknown adult male, found dead on road next to Trounson, - vehicle impact)		2 chicks	1 (unknown - too decomposed to determine - at Dargaville township not Trounson)	In 2015/16 a trial of A24 self-resetting traps was conducted in Trounson Kauri Park. Kiwi chick survival was the outcome monitoring conducted to determine their effectiveness for stoat control. This was a one-year trial. No further chick monitoring was done after 2016. Adult deaths in 2017 & 2018 were random finds, particularly the one at Dargaville as kiwi have not been reported present here for decades and unsure how it would have made its way to the location it was found just on the edge of town.
Northland	Whangarei	0	1	0	1	1					Radio-tracked birds
Coromandel	Moehau	0	0	0	0						No monitoring during this time
Western	Tongariro Forest	5	7	11	23	15 (14 ferret predation, 1 stoat)	1 (translocation)			7 (too decomposed to tell- but 4 suspected ferret predations)	Of the 7 deaths recorded as unknown causes, 4 were suspected ferret predations due to location and timing of other ferret-kiwi kills
Eastern	Boundary Stream Mainland Island	0	1	1	2	1 (adult, too decomposed to be sure, likely a cat or ferret)			1 (adult, found in a hole therefore likely trapped)		Kiwi monitored by ECOED (community group) in 2017, Kiwi managed by K4K in 2018. Management only to locate birds when breeding so ONE/ONC can occur. Therefore, checks not regular and bodies not found in a timely fashion to accurately determine cause of death
Eastern	Kaweka Forest Park	0	3	3	6	6 adults (1x ferret, 1x suspected ferret, 1x suspected cat, 3 unknown)					Kiwi managed and monitored by ECOED (community group). Likely cause of death determined by how and where body was found. Terrain and accessibility of Kawekas, and volunteer capacity determines how quickly bodies are located.