

Kōkako Report, Tiritiri Matangi Island, 2017-2018 Season



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Season summary

The 2017-18 breeding season started with 16 pairs and by the end of the year we had 18 pairs of which 14 attempted to breed. In addition to the usual loss of some nests from predation, we had two months of unusually hot dry weather. This was followed by two very rough storms which may have contributed to nests being lost. Only eight chicks fledged, two males and six females.

Three birds had lost their partners to the Parininihi translocation in July 2017, but one had acquired a new partner within two days and the other two, who held adjoining territories, paired up together. There were six other new pairs this season, making eight in all, some of which occupied territories vacated by translocated birds. Five of the new pairs attempted to breed, though only one was successful. Three previously successful pairs failed to fledge a chick and one long-established pair once again did not attempt to breed.

One of the males from our only same-sex pairing disappeared before the start of the season and the remaining male has paired up with one of the unbanded birds from the 2015-16 breeding season.

Shortly after the season finished three of our established breeders, two males and a female, were missing from their respective territories. At this stage we do not know what has happened to any of these birds. In all of these cases other birds have moved into these territories and are forming partnerships with the remaining residents.

Details of breeding season

Hemi (RM-WR) and Cloudsley Shovell (M-O): Even though he was not targeted, Cloudsley Shovell's former partner Bandit was the first bird caught for the Parininihi translocation and was soon replaced by Hemi. Like Bandit, Hemi is one of Cloudsley Shovell's grandsons. At twenty one years of age Cloudsley Shovell is our oldest bird and was one of the first to arrive on the Island. Although Hemi and Cloudsley Shovell's first nest failed to hatch any chicks, they did produce a chick from the second nest. A big storm hit the Island on 17- 18th January, and when the nest was checked on 19 January it appeared to have failed. A further check a few days later found the chick dead in the nest.

Te Hari (M-W) and Phantom (BW-M): Phantom nested unsuccessfully twice this season. Her first nest produced one chick at the beginning of December, but the week before Christmas the nest failed. It had been disturbed and contained many feathers, indicating predation, probably by a harrier/kāhu. Phantom built her second nest soon after and started incubating in early January. This nestling died a few days after hatching. Heat exposure is a possible cause; there were no signs of predation, the nest was not well shaded and maximum temperatures at the time were around 30°C.

Chatters (RG-M) and **Te Rae** (OM-JO): This season Te Rae and Chatters nested once and by the end of December they had successfully fledged two chicks, both female: **Koto** (RM-JG) and **Mihipeka** (RM-JY). Since the 2009/10 season this pair has produced eleven offspring, four males and seven females.

Parininihi (M-Y) and **Koha** (BM-R): This was their eighth unsuccessful season. At least this season Koha did build a nest even though she did not use it.

Noel (OM-R) and **Rehu** (M-J): Rehu and Noel nested once this season and by 16 December they had successfully fledged two chicks: **Ocarina** (male, RM-Y) and **Diva** (female, RM-G). Rehu has lost her orange band (previously she was OM-J).

Crown (G M/-) and **Pureora** (GM-R): Pureora usually doesn't begin nesting until December so it was a surprise to find her incubating in late November. Although they successfully fledged two chicks from this nest, both looked very small. On 20 January one of these (GM-JW) was found dead. The remaining fledgling **Pounamu** (female, GM-JJ) has grown well. This pair has now produced six daughters in the past four seasons. Crown has lost his green band (previously he was GM-G).

Kikorangi (OM-G) and **Mawhero** (GM-W): Mawhero had one nest this season but the one chick that hatched was found dead outside the nest a day or two later. During February she disappeared, fate unknown, and since then Kikorangi has paired up with **Muso** (GM-WY). Mawhero was translocated from the Waipapa area in October 2007 and eventually paired up with Kikorangi in December 2010. Kikorangi and Mawhero have successfully produced only two daughters, Aquarius in 2013-14 and Wairua in 2015-16.

Miharo (JM-R) and **Royal** (GM-JY): After an unsuccessful 2016-17 breeding attempt with Rimu, Royal paired up with Maui during the winter of 2017. After Maui was translocated to Parininihi, she paired up with Miharo, whose previous mate Mere had also been translocated. This season they had two nesting attempts. The first nest produced two chicks but the smaller chick disappeared around fledging time in the middle of December leaving one fledgling: **Apato** (male, GM-JR). Miharo was left to look after Apato while Royal incubated a second clutch in one of Mere's old nests. On the 15 January, when hatching was due, this nest was found abandoned and empty.

Sarang (W-M) and **Discovery** (GM-RY): Discovery built two nests this season. The first nest failed in the middle of November during the incubation period. By the end of November she was using the second nest which produced one fledgling: **Wainene** (female, J-GM).

Poutama (OM-W) and **Tiara** (RM-WJ): Tiara was found incubating on 9 November and this nest produced one chick, **Haeata** (female, RM-W) who fledged around Christmas time. During March Poutama disappeared, fate unknown, and **Pōrutu** (JM-GW), a one-year-old male, appears to have paired up with Tiara. Poutama was born in 2001 in captivity and was released on Tiritiri in 2008. He finally found a mate in 2015 when he paired up with Tiara and together they have produced one son, Maui in 2015-16 and two daughters, Jenny in 2016-17 and this season's fledgling, Haeata.

Hastie (RM-GG) and **Freedom** (RM-YG): In early 2017 when Freedom badly injured her right leg, her then mate Taitoko was left to feed their fledgling from that season. He then paired up with an unbanded female later named Ruth, and we assumed Freedom had died following her injury. In June, Taitoko and Ruth were translocated to Parininihi and Freedom reappeared in her old territory. She paired up with Hastie, Noel and Rehu's two-year-old son, but they did not attempt to breed this season.

Hotu (RM-J) and **Aquarius** (RM-GJ): This was their third season together and the first time they have nested. Aquarius built her first nest at the beginning of November and was found incubating on 12 November. At the end of November the nest was still active but it was found empty a few days later and predation is suspected. She started her second nest in the middle of December and by 19 December had started incubating. This nest was found abandoned in early January after a big storm and when checked contained three eggs.

Rimu (GM/-) and **Honey** (Unbanded): Having broken up with Royal after their unsuccessful nest in 2016-17, Rimu remained single for some months. In December 2017 we found him paired with one of our unbanded birds (now called Honey) from the 2015-16 season. They have settled into a territory previously occupied by Puoho and Terewai, one of the pairs translocated to Parininihi. They had two unsuccessful nesting attempts this season, the first in one of Terewai's old nests. On 25 December this nest was found empty and by 1 February Honey had abandoned the second nest which was found to contain one egg.

Waipapa (GM-Y) and **Awatea** (RM-YW): Awatea nested unsuccessfully twice this season. Her first nest was known to contain at least one chick, but on 22 November the headless body of a twelve-day-old chick was discovered hanging from the abandoned nest. Morepork/ruru predation is suspected, and the discovery of feathers nearby suggests there had been a second, larger, chick. By the 2 December she had built a new nest and had started incubating. On 25 December this nest was found abandoned and empty and once again predation, possibly by morepork/ruru, is suspected. In March Waipapa disappeared, fate unknown, and Awatea has paired up with her nearest neighbour, **Indigo** (GM-RG) who had spent the breeding season with Shelly. Waipapa was translocated from the Waipapa area in October 2007 and eventually paired up with Awatea in 2015. They produced one son, Rakataura in 2016-17.

Slingshot (M-WR) and **Melodie** (Unbanded): From 2013-14 until this season, Slingshot was paired up with Tawa, another male. Both these birds came from the Waipapa area in 2010. Melodie is the third unbanded bird from the 2015-16 breeding season. Although they have been together all season they did not attempt to nest. Slingshot has lost his green band (previously he was GM-WR).

Sapphire (JM-WW) and **Wairua** (RM-RG): Sapphire (Te Hari and Phantom's son) and Wairua (Kikorangi and Mawhero's daughter) are both two years old. They have settled into a territory vacated by a translocated pair (Hohaia and Lucky). They had one nest this year, which was abandoned ten days into incubation.

Tioriori (JM-WY) and **Te Kaiwaiata** (GM-RJ): Tioriori (Bandit and Cloudsley Shovell's son) and Te Kaiwaiata (Crown and Pureora's daughter) are both two years old. They have established a territory in between Crown and Pureora and Sarang and Discovery. On 15 November, Te Kaiwaiata was found building a nest and a few days later Tioriori was seen helping her to line the nest. She was found incubating on 25 November and on 15 December at least one chick was seen in the nest. However by 18 December the nest had been abandoned and was found to be empty.

Indigo (GM-RG) and **Shelly** (RM-RJ): Indigo (Sarang and Discovery's son) is two years old and Shelly (Poutama and Tiara's daughter) is only one year old. They appeared to be establishing a territory between two established pairs, Waipapa and Awatea and Kikorangi and Mawhero. They did not attempt to nest this season. By March, after Waipapa's disappearance, Indigo had left this territory and was found paired up with Awatea.

Other birds

Tawa (male, GM-J) who was previously paired up with another male, Slingshot, has not been seen all season and is presumed dead.

All seven of the banded fledglings and the one unbanded fledgling from the 2016-17 breeding season have been seen during 2017-18, though three of them (Tangi, Skye and the unbanded bird) not in recent months. **Rakataura** (male, GM-WJ) appears to have settled into a territory, and Muso and Pōrutu have formed partnerships with Kikorangi and Tiara respectively, whose former partners have gone missing.

Summary of transfers to/from the Island

The long-awaited translocation of twenty birds to Parininihi, North Taranaki, finally happened in the winter of 2017. Twelve birds, made up of five pairs and two single males, were released there on 28 May 2017. This was followed by the release on 2 July of another eight birds, made up of three pairs plus one male and one female.

The following birds were translocated:

Pairs:

Taitoko (m) (T2) RM-JG and Ruth (f) WW- RM (originally unbanded)

Kahu (m) (T2) RM-YY and Parirau (f) (T2) RM-RY

Takara (m) (T2) OM-YB and Aria (f) JM-Y

Puoho (m) (T2) RM-Y and Terewai (m) (T2) RM-G

Tupoki (m) (T2) RM-GW and Hinerau (m) (T2) RM-JY

Hohaia (m) (T2) RM-JR and Lucky (f) (T2) WY-RM (originally unbanded)

Flieder (m) (T2) RM-W and Narangi (f) (T2) RM-WG

Carter (m) (T2) RM-JJ and Kanti (f) (W2) GM-RW

Singles:

Bandit (m) JM-G

Korihi (m) (T2) RM-YR

Maui (m) (T2) RM-RW

Mere (F) (T2) RM-YJ

Population summary

As far as we can tell, during the 2017-18 season we had a maximum of 53 kōkako on the Island, 22 males, 28 females and one unbanded yearling, gender unknown. These are listed in the table below. However, since the end of the season, we appear to have lost two adult males (Waipapa and Poutama) and one adult female (Mawhero), and we cannot be certain that all the one-year-old birds are still alive. This gives us a likely total of between 47 and 50 at the beginning of April.

Future actions

In July-August 2018, conditional on a permit being granted, between eight and 14 kōkako from Tiritiri Matangi will be translocated to Pirongia Forest Park. A substantial portion of the Island's population is descended from a Pirongia male, who bred at Mount Bruce in the late 1990s, and the purpose of the translocation (as with the Parininihi translocation in 2017) is to return some of these birds to their ancestral home. Assuming this translocation goes ahead, we expect to start next season, as we started this one, with some new arrangements in territories and pairings.

In the longer term, we shall continue to manage the population as best we can to optimise its genetic composition. Translocations both on and off the Island could continue to play a role in this, especially if there are other sites that wish to receive birds from us. Egg swaps remain as a possibility, again if other sites wish to take part.

For management purposes, it is important that we continue to monitor the population closely, as we have done in the past, and we have applied for a Wildlife Act Authority to continue this work for the

next ten years. Intensive monitoring, combined with colour-banding, is important in enabling us to take genetic diversity into account when we make management decisions (for instance on which birds to translocate).

Intensive monitoring since 1997, and especially over the past eight years, has given us an extremely detailed multi-generational data set, in which the parentage of the majority of birds, and information on partnerships, territories, nesting attempts and outcomes, nest locations, etc. is accurately recorded. We believe this material could be analysed to improve our knowledge of kōkako both on Tiritiri Matangi and more generally, by addressing issues such as the relationship between inbreeding and ecological fitness, or nesting success and factors such as the age of the birds, weather, quality of habitat, etc. We thus envisage our future actions to include an emphasis on research which has not been present until recently.

The new Kōkako Recovery Plan, currently in draft form, identifies advocacy as the main role of the Tiritiri Matangi kōkako population. Despite the growth of mainland populations in the Auckland region and elsewhere, Tiritiri Matangi remains by far the easiest place for people to see and hear kōkako, offering excellent opportunities to enhance the public profile of this species and engage and inform visitors to care about their future and about the wider needs of native species. The Island provides an image of how kōkako and other species might live in a pest-free Aotearoa/New Zealand. With advocacy a priority, we have revised our kōkako signage to place more emphasis on what these birds need in order to survive and flourish. We expect the new signs to be installed during the coming winter.

Finally, 2018 is the 21st anniversary of the first arrival of kōkako on Tiritiri Matangi. In August we shall hold a public event to celebrate this milestone.

Birds present at some stage during the 2017-18 season

Territorial pairs in 2017-18				Unpaired birds, February 2018			
Male	Bands	Female	Bands	Male	Bands	Female	Bands
Hemi (P, T)	RM-WR	Cloudsley Shovell (F)	M-O	Rakataura (P,T)	GM-WJ	Jenny (P,T)	J-RM
Te Hari (P)	M-W	Phantom (P)	BW-M	Pōrutu (P)	JM-GW	Tangi (P,T)	G-RM
Chatters (P)	RG-M	Te Rae (T)	OM-JO	Ocarina (P,T)	RM-Y	Muso (P,W)	GM-WY
Parininihi (T)	M-Y	Koha (P)	BM-R	Apato (P,W)	GM-JR	Skye (W)	GM-WW
Noel (P, T)	OM-R	Rehu (P, T)	M-J			Diva (P,T)	RM-G
Crown (W)	GM--	Pureora (W)	GM-R			Haeata (P,T)	RM-W
Kikorangi (P, T)	OM-G	Mawhero (W)	GM-W			Mihipeka (P,T)	RM-JY
Sarang (P, W)	W-M	Discovery (W)	GM-RY			Koto (P,T)	RM-JG
Poutama (T)	OM-W	Tiara (P, T)	RM-WJ			Wainene (P,W)	J-GM
Hastie (P, T)	RM-GG	Freedom (P, T)	RM-YG			Pounamu (W)	GM-JJ
Hotu (P, T)	RM-J	Aquarius (P, T, W)	RM-GJ	One unbanded bird of unknown gender (P,T)			
Waipapa (W)	GM-Y	Awatea (P, T)	RM-YW				
Slingshot (W)	M-WR	Melodie (P, T)	Ub				
Tioriori (P)	JM-WY	Te Kaiwaiata (W)	GM-RJ				
Miharo (P)	JM-R	Royal (W)	GM-JY				
Sapphire (P)	JM-WW	Wairua (P, T, W)	RM-RG				
Indigo (P, W)	GM-RG	Shelly (P, T)	RM-RJ				
Rimu (W)	GM--	Honey (P, T)	Ub				

T = Taranaki descent, P = Pirongia descent, W = Waipapa descent

Fledglings from 2017-18 are shown in green.

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