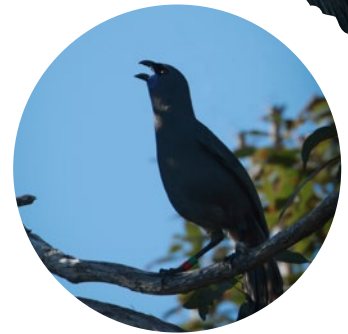


# Kōkako, a remarkable bird



**Kōkako (*Callaeas wilsoni*) are a member of the wattlebird family. They are endemic to Aotearoa, New Zealand and are best known for their unique appearance and melodic calls.**



They are easily recognised, having distinctive blue-grey plumage with blue wattles at the base of their throats, and distinctive black patches around their eyes many liken to a 'Zorro' Mask.

Most famously, kōkako are known for their haunting, bell-like song, which can travel over long distances. Males and females will often duet, especially during the breeding season.

Kōkako are poor flyers and get around by gliding and by using very strong legs to hop from branch to branch.

At one time, kōkako could be found throughout the country. Unfortunately, they can now only be found living in scattered populations across the North Island, where they inhabit mature forests which have extensive predator control.

Kōkako are omnivorous. As well as feeding on insects, they feed on the leaves, buds, nectar and fruits of many native plants.

They play a crucial role in seed dispersal, aiding forest regeneration.

Breeding usually occurs from October to March, with a clutch size of 1–3 eggs. Both parents are involved in feeding and caring for the chicks.

As is the case with many of our native species, kōkako are threatened. They face risks such as habitat loss, predation by introduced mammals and competition for food from introduced browsers such as deer, wallabies, goats and possums.

The kōkako is indeed a remarkable bird that not only holds great significance with Māori, but also embodies our unique natural heritage. Protecting this species is essential for maintaining the ecological integrity of its forest habitats.

**Continued conservation efforts and community engagement are vital for ensuring the survival of the kōkako for future generations.**

# Healthy Habitat, Healthy Kōkako

**Kōkako require healthy habitat to thrive. Habitat is generally mixed indigenous forest and 'healthy' means minimal impacts from introduced predators, and browsers. Kōkako require access to a wide variety of plants and insects, from the tops of the canopy trees to the smallest of shrubs, and all the layers and lianas in between.**

Kōkako have a varied diet which can change with the seasons. Depending on the time of year their diet can comprise of a mix of leaves, buds, flowers, nectar, fern fronds, fruit (berries) and invertebrates.

Predators and browsers can severely impact on the availability of these food sources making control vital to maintaining a healthy habitat for kōkako.

Take a look at our other factsheets if you want to learn more about healthy habitats and threats facing kōkako.

## Some favourite kōkako foods

### Porokaiwhiri, Pigeonwood *Hedycarea arborea*

It's not just kererū who go nuts for the fruit of the porokaiwhiri. Kōkako also love to eat the bright orange berries, and it is considered a very important, energy rich food source when raising chicks.



### Sixpenny Scale *Ctenochiton spp.*

The sixpenny scale insect lives on the underside of leaves of many of our native shrub hardwoods. They are considered an important source of protein for kōkako, being especially important for egg development, and as a food for chicks.



### Nga Makawe ō Raukatauri, Hanging Spleenwort *Asplenium flaccidum*

Kōkako have been observed eating the fronds of a number of ferns, but they seem to have a particular fondness for hanging spleenwort. The fronds are a valuable source of food through winter and early spring when fruit and invertebrates are not so plentiful.



# Predator control - why it is so important

**Like many of our native birds, kōkako are at risk of predation by introduced mammals, particularly whilst nesting. Possums, rats and stoats are considered the biggest threat to kōkako, preying on eggs and chicks.**

Female kōkako are also at risk during the breeding season. As the females do all the incubation and brooding throughout a 50-day nesting period, this makes them vulnerable to attack. Sadly, years of such predation events can result in populations being reduced to mostly old male birds!

This underscores the importance of vigilant predator control when supporting kōkako populations. Possums, rats and stoats need to be managed to very low levels for kōkako to successfully breed and to fledge chicks. This is best done using a combination of trapping and poisoning throughout the breeding season (October to March).

Please get in touch if you want to better understand the predator control requirements required for kōkako to thrive.



Predation: Possum and rat raiding a nest.



Vigilant pest control is essential for kōkako to thrive.

# Browsers, how are they a threat?

**If asked about threats to kōkako, not many would consider browsers such as deer, pigs and goats. Because they don't directly prey on the birds and chicks, it is hard to imagine them as threats, right?**

However, research has shown that browsers deplete kōkako food resources over time. Kōkako rely on the leaves and fruits (and insects) of certain key plants found within the forest. Browsers favour the same, highly palatable plants, consuming seedlings and saplings and sometimes killing mature plants by ring-barking.

Over time their foraging is impacting the regeneration and survival of key plants and reducing the long-term food availability for kōkako (especially during critical times such as the breeding season).

Unfortunately, long-term browsing leads to an eventual change in the structure of the forest understorey, as well as a reduction in seedling establishment, both of which can impact on the long-term sustainability of kōkako populations. Therefore, any work done to support kōkako will ideally include a browser management plan.



Goats



The impact of dama wallaby on the native forest. Wallabies have access to the area on the left and are fenced out from the area on the right.

Photo: Bay of Plenty Regional Council

# Rearing kōkako chicks, can your forest support them?

**As kōkako are not strong flyers, they generally rely on getting their kai (food) from within their territories, which can be only a few hectares in size.**

Kōkako have adapted to eat a wide range of foods including leaves, flowers, fruits and invertebrates. Having a healthy habitat with a diverse range of plant species is essential for them to thrive – but especially so when it comes to raising hungry chicks!

Rapidly growing chicks need high quality, energy-rich foods, leaves no longer quite cut it!

**So, how do you know if a forest will support successful breeding of kōkako?**

During peak nesting (November – December) the male kōkako will do much of the foraging for a family of up to five, and all within about 200m of the nest, so their territory must include abundant sources of high-quality foods (flowers, fruits and insects) within that small area.

Very few native plant species are yet flowering or fruiting – the early fruiting plants are the key!

Early flowering and fruiting plants are among the 10 plants, (see reverse) that have been identified by experts as being key indicator species of a healthy habitat for rearing kōkako chicks.

Unfortunately, many of these plants are also very tasty to deer, goats, possums, pigs and wallaby, and persistent browse has meant that in some areas they are fruiting poorly, are in very low numbers, or sadly, have disappeared entirely from the forest.

Based on research undertaken at Mapara in the King Country, the Kōkako Recovery Group has developed a methodology for assessing habitat quality and suitability for raising chicks. Please get in touch with us if you want to learn more.



**FACT:**

**During research at Puketi Forest in Northland, kōkako were observed eating more than 85 species of plants and invertebrates!**

# The 10 Key Species

KEY:

L  
Leaf

B  
Bud

Fr  
Fruit

F  
Flower

N  
Nectar

I  
Invertebrate  
host  
(sixpenny scale)



**Porokaiwhiri,  
Pigeonwood**  
*Hedycarya  
arborea*

Fr L



**Karamu**  
*Coprosma robusta*

L B Fr



**Kanono**  
*Coprosma  
grandifolia*

L B Fr



**Rewarewa, NZ  
honeysuckle**  
*Knightia excelsa*

F N



**Mapou/  
Red matipo**  
*Myrsine australis*

Fr



**Makomako,  
Wineberry**  
*Aristotelia serrata*

Fr



**Kōtukutuku,  
Tree fuchsia**  
*Fuchsia  
excorticata*

Fr



**Puka**  
*Griselinia lucida*

L B I



**Tātarāmoa,  
Bush lawyer**  
*Rubus cissoides*

Fr



**Toro**  
*Myrsine salicina*

Fr