

Kia mau ki tēnā, kia mau ki te kawau mārō

Hold fast to that, hold fast to the swoop of the shag

Ngāti Maniapoto

WHAT ARE SHAGS?

Shags are medium to large aquatic birds. There are 36 species of shag or cormorant worldwide, of which 12 are present in the Aotearoa New Zealand. Eight of the species found in Aotearoa are endemic, which means they are only found here.

The kawau, or black shag (also known as the black cormorant and great cormorant; *Phalacrocorax carbo*) is one of the most common and widespread shag species in Aotearoa. As a native species, kawau are highly valued by some hapū (subtribes) and iwi (tribes), and is considered as a taonga bird species (cultural significance).

Kawau occupy a variety of habitats from Northland to Stewart Island, including repo (wetlands), estuaries, coastal waters, lakes and ponds. Although widespread, the population is estimated to be between 5,000 to 10,000 individuals. Large colonies of over 50 individuals have been recorded in Waikato, Lake Wairarapa wetlands, and the Chatham Islands.

As a top predator in freshwater systems, kawau consume small and medium-sized fish. However, this natural behaviour puts them in conflict with human fishers and they have a reputation for stealing from nets, and being 'menaces' or unwanted 'pests' because they are viewed as competing with humans for fish. Between 1890 and 1940, fishers were actually encouraged to cull (shoot) them, and as a result population decline occurred in some areas. In 1986 kawau were given partial protection as a native bird and it is also currently classified as 'At Risk: Naturally Uncommon' in the New Zealand Threat Classification System'.

As kawau are easily frightened by humans, urban development near their habitat, and an increase in human recreational activity may have an effect on the presence of kawau in that particular area. This may also have further impacts on local kawau population numbers.



OTHER SHAG SPECIES

There have been numerous studies on the population size, diet, and breeding habits of different shag species that also occupy habitats near repo and share different variants of the name 'kawau'. These shag species are protected and include the little shag (*Phalacrocorax melanoleucos*), pied shag (*P. varius*), and little black shag (*P. sulcirostris*).

Kawau paka/little shag

As suggested by the name, the kawau paka or little shag, are the smallest of the shag species. With an estimated population of 5,000–10,000 breeding pairs, the kawau paka are common in the North Island, and are found in sheltered coastal areas, harbours, rivers, lakes, and dams. They are known for their variety of plumage and have relatively longer tails than other shag species, such as the kawau, kāruhiruhi, and kawau tūī.

Kāruhiruhi/pied shag

The kāruhiruhi or pied shag, mainly inhabit coastal areas throughout Aotearoa but are also found in and around wetlands. They are closely related to the kawau, and have similar breeding patterns and behaviour, lifespan, and population size. They are generally slightly smaller than the kawau, and the face, throat, and underpart are white. As with the kawau, they used to be seen as a menace; however, restrictions on culling (shooting) have possibly contributed to an increase in their population size in the central North Island.

Kawau tūī/little black shag

The kawau tūī or little black shag was first reported in 1840 and is a relatively new species in Aotearoa. Kawau tūī is smaller than kawau and has all-black plumage with a glossy dark green sheen. The distribution of this species is increasing and the birds are primarily seen in the North Island, particularly in Northland, Rotorua, Taupō, Wairarapa, and the Wellington region. Kawau tūī are adapted to both freshwater and coastal environments, and fish form a major component of their diet. Classified as 'naturally uncommon' and protected, there are estimated to be between 1,000 and 5,000 breeding pairs.



Kawau paka/little shag. Photo: © Janice McKenna



Kāruhiruhi/pied shag. Photo: © Jonathan Astin



Kawau tūī/little black shag. Photo: John Innes

KAWAU AND THEIR VALUE TO MĀORI

Although there have been many studies of the kawau, very little is understood about their role and influence within our wetland ecosystems. However, cultural information and knowledge about these birds exist that highlight their value to Māori within these systems, and could potentially provide key information for their future enhancement.

There are numerous whakataukī or sayings that use kawau – particularly their behaviour or appearance – as a metaphor. For example, 'Ka mārō te kakī o te kawau' is a well-known whakataukī that describes the neck of the kawau when preparing for flight. It is often used to describe a person, group or taua (war party) preparing for battle.

Although kawau were historically used as a kai (food) by some hapū/iwi, other bird species were generally preferred as a more important kai. The feathers of kawau may also have been used for korowai (cloak); however, there is a lack of research and evidence to support such use.

For some iwi, kawau are considered a taonga (tresured) species. Ngāi Tahu have acknowledged a special relationship with 'kōau', the local name for a variety of shag species including the kawau, kawau paka, and kāruhiruhi.

There are many different Māori names used by different iwi and it is important to recognise if your iwi or the iwi in your region have their own name for the bird.

The use of traditional Māori names for bird species is at risk of declining, which could mirror a similar decline in our knowledge system of kawau and other shags. When people can't see the birds, knowledge about them may also fade away with each new generation. As noted earlier, this decline may be attributed to:

- efforts to remove localised populations of kawau because of their nuisance behaviour to fishers
- kawau having only partial protection under conservation legislation
- a significant amount of recreational and human activity near habitats, which may cause them to move to other areas or affect their habitats. This has been especially noted in coastal areas where kawau have moved to offshore islands where there is less human activity.

Ka mārō te kakī o te kawau

The neck of the shag is stretched out



Kawau/black shag. Photo: © Janice McKenna

MONITORING KAWAU CONSIDERATIONS FOR BUILDING YOUR OWN MONITORING FRAMEWORK

Long-term observations and monitoring were natural activities for our tūpuna (ancestors), who also drew on their mātauranga (knowledge). This knowledge system is still relevant today and can help develop our collective understanding of our natural resources, especially wetlands, in our respective regions.

Key actions we can take to build our understanding of kawau based on our collective mātauranga:

- Körero (speak) with kaumātua (elders) and key whānau (family) members about their memories of kawau:
 - Are they aware of any whakataukī or korero about the kawau or the other shags? Whakataukī provide not only key guidance and life learnings to whānau about a particular take (issue) or kaupapa (topic), they also provide important clues to the observations made by our tūpuna about the things with which they interacted. Whakataukī from your iwi about the kawau (and other shags) can help build an important cultural picture about:
 - i the presence of the birds in the rohe, and the time of year when that occurred, and
 - ii the different types of interactions between the hapū/iwi and the birds (both historically and currently).
 - What does the kawau look or sound like?
 Our senses are very good at detecting changes provided we pay attention to them. Recording of these sensory changes is just as important as collecting scientific information about the kawau. This information can provide an indication of the health of black shags as well as wetlands:
 - A change in colour and size might suggest the species of shag had changed, which can be linked to environmental changes and human influences
 - ii A change in sound might indicate changes in population size (louder if many, quieter if less); or changes in breeding cycle – kawau have distinctive calls during these times.

- Where did they find them and why did they look for them? Places where the kawau might have been found can indicate their whakapapa (connections) as well as their relationship to other plants and animals. It is also important to consider any associated practices or past use of kawau as tohu (signs).
- Can they remember if they were found in certain areas of the region or near any particular trees or plants? Again, this can help increase overall understanding about the habitat and wider whakapapa of the kawau. All species of shag described in this section enjoy having trees to roost on and dry their wings. Perhaps key trees and plants they use are no longer there? If this is the case, have kawau also gone?

There are many other practices where you may have seen kawau. Often people unintentionally make important observations. These observations may seem insignificant at the time but can also provide an indication of the health of the wider ecological system. Noticing the presence or absence of kawau in a certain area can give clues about patterns and other cultural indicators (e.g. the fish they eat) that could also be monitored over time.

- Identify your own monitoring areas based on what you may have learnt from your people.
 Think about the areas where kawau and other shag species used to be found, and choose areas to monitor them based on those different habitat types e.g. lake edge versus wetland versus dams.
- 3. Who to talk to? Talk to scientists and other experienced communities and groups and work with them to support the development of personalised iwi and community monitoring programmes. These programmes may be tailored to iwi aspirations for kawau (and other shag) populations and health of wetlands. Some scientists are able to offer advice (e.g. data collection, recording, information), or training in identification and ecology of the different shag species that may be seen in your area.

WANT TO LEARN MORE?

Note: If you are having problems with the hyperlinks below, try copying and pasting the web address into your browser search bar.

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Useful websites

NZ Birds Online: www.nzbirdsonline.org.nz

NZ Birds: www.nzbirds.com

Booklet: Initial Focus Group Findings. Manaaki Whenua – Landcare Research: www. landcareresearch.co.nz/science/plants-animals-fungi/animals/birds/biodiversity-measures/in-pictures/booklet-focus-group-finding

A Code of Practice for naming new species in Aotearoa: www.landcareresearch.co.nz/__data/ assets/pdf_file/0010/84187/code_practice_naming_ new_species.pdf

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