

King Shag research update

Over the winter months as part of King Shag breeding success monitoring, I spent considerable amount of time on the water looking for King Shags. Armed with a digital camera with a large zoom lens, I spent this time searching for banded birds, and this led to several new observations which is adding to our knowledge of this species.

Three banded adults from Duffer's Reef were sighted within the outer Pelorus Sound, all these birds were GPS tracked in 2019 or 2020 and as most King Shags do, had favoured foraging locations that they visited during that time. Interestingly, the sightings of these three birds were all from the area that birds were GPS tracked; this suggests that birds continue to forage within these favoured fishing grounds year after year. This has been seen in other related shag species, but yet has not been proven in King Shag.

Another interesting observation was of another banded adult female from Duffer's Reef, banded and GPS tracked in 2019. This bird successfully fledged one chick in the 2020 breeding season but didn't appear to be breeding this season. This bird was spotted, with presumably its one-year-old juvenile in tow, foraging within a Mussel Farm in Richmond Bay. The juvenile was in constant company with the adult, as if learning how to forage. The GPS tracking of this female showed that she did forage within Mussel Farms, and it appears that she is passing on this behaviour to her



A banded adult female King Shag from the Duffer's Reef colony with her one-year-old offspring roosting on a mussel float after foraging within the mussel farm. Do adult King Shag hand down generations favoured foraging locations?

offspring. This suggests that favoured foraging locations may be passed down generations and may be a learned behaviour.

One of the most interesting sightings during this time was one of the first chicks banded at Tawhitinui in 2018, and now a three-year-old bird. This bird was regularly seen at Tawhitinui until December 2019 when it disappeared; and was presumed dead. However, this bird suddenly appeared back at the colony in July 2021 and has been seen several times since (including foraging near Mussel Farms in Southeast Bay). The obvious question is where has this bird been for 18 months and suggests that at least some of young King Shags have a dispersal or exploratory phase of their adolescence where they depart the colony and move around.

Now that we have a reasonable number of individually banded birds in the population, it is possible to follow the fate and behaviour of individual birds. This is leading to new insights in King Shag behaviour and ecology. These observations continue to build on the knowledge we have of the species and prove the worth of the colour banding project.

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