

A shag count in Abel Tasman National Park



Tucked into cliffside crevices high above the water, shag nests aren't easy to spot at first glance. In a small boat, two DOC scientists travelled 150 km from Awaroa Bay to Kaiteriteri, scouring the coastline with binoculars to record the number of nest and roost sites of these once-hunted birds.

Shags are an important link between land-based and marine ecosystems, since they feed on fish but add nutrients to coastal land via their guano (droppings). The birds are sensitive to changes in both environments and are a good indicator of ecosystem health in their locality.

This survey in November 2012 was the first count of shags living in Abel Tasman National Park. Although it was not exhaustive, the survey recorded baseline information that could be used to track a decline or increase in shag numbers in the future.

Study sites



Abel Tasman National Park, Whanganui A Hei (Cathedral Cove) Marine Reserve and Queen Charlotte Sound, Marlborough Sounds.



Threats to shags

Many coastal bird populations, including shags, are affected by increasing human activity and coastal development in New Zealand. Climate change is also expected to influence seabirds as changes occur in the size and distribution of the fish populations on which they feed.

Shags are vulnerable to oil spills and have drowned after being trapped in craypots or tangled in fishing gear. Their habit of roosting in (and occasionally killing) large trees sometimes brings them into conflict with people who dislike their noisy habits and guano.

Shag numbers

Spotted shags were the most common species found in Abel Tasman National Park. 1,207 spotted shags and 61 active spotted shag nests as well as 9 pied shags and 19 active pied shag nests were recorded. Pied shags have colonised (or re-colonised) this area in the past 10–15 years.

The pied shag (*Phalacrocorax varius*, kāruhiruhi) has black and white plumage and nests near estuaries and around the coast. With 5,000 breeding pairs, it is classed as Nationally Vulnerable.



Shag surveys in other locations

Queen Charlotte Sound

218 km of coastline in outer Queen Charlotte Sound was surveyed in November 2014. The number of shags in the area is growing, including the Nationally Endangered New Zealand king shag.

The survey found:

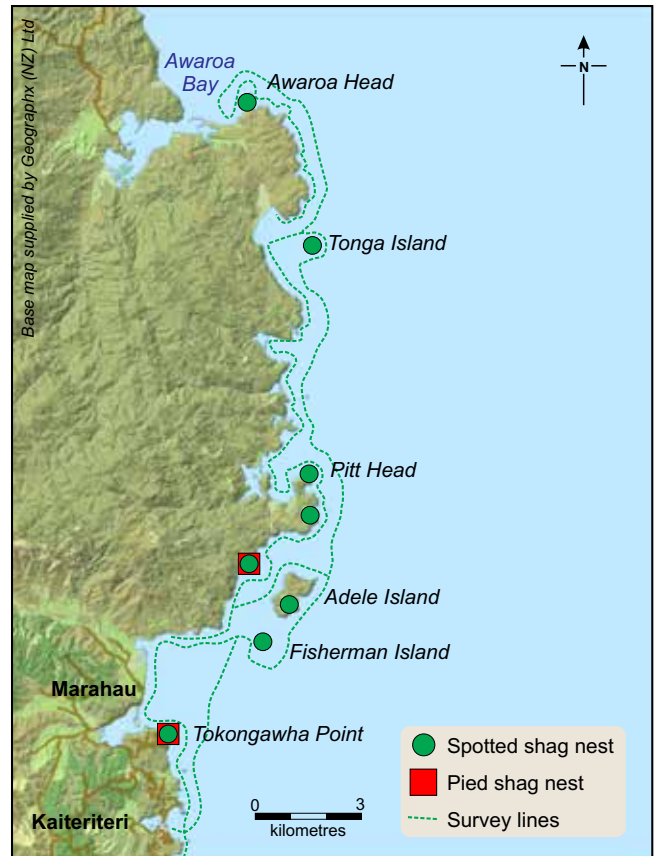
- king shag: 3 roosts
- spotted shag: 23 nest sites, 21 roosts
- pied shag: 3 nest sites, 4 roosts
- little and little black shags: 5 birds sighted.

Whanganui A Hei

Whanganui A Hei (Cathedral Cove) Marine Reserve and nearby locations were surveyed in November 2013. Matapua Bay (which is outside the marine reserve) had the most shags, with 32 nests observed.

The survey found:

- pied shags: 106 nest sites, 167 roosts
- little shags: 2 birds sighted.



Pied shag and spotted shag nesting sites and survey line.

What's next?

Future resurveys of the current shag nesting and roosting sites using the same GPS coordinates would quantify any population changes in the area. This data could signal any changes in the nearby land and marine environments, and interactions between them (e.g. an increase in sedimentation from local rivers).

Research to identify factors (including food supply, availability of suitable breeding sites and impact of human activity) that cause fluctuations in the shag population would also be valuable.

Find out more

Read the full publication: Distribution and abundance of shags in Abel Tasman National Park

<http://notornis.osnz.org.nz/node/4278>

This project is part of the National Marine Reserves Monitoring and Reporting programme, funded by DOC's partnership with Air New Zealand.

New Zealand Government

Published by:
Department of Conservation
Marine Ecosystems Team, Science and Policy
PO Box 10420, Wellington 6143, New Zealand
July 2015

Editing and design:
Publishing Team, DOC National Office

All photos, unless otherwise credited, are copyright DOC.