

Shags are medium to large aquatic birds. Most are all black, or black above and white below. Bill long, strongly hooked at the tip. Upright posture when perched. Short legs; feet are fully webbed. Many have brightly coloured facial skin when breeding. Sexes alike. In flight, wings short and broad, and neck is extended. Swim with head held uptilted and body low in the water.

**KING SHAG** *Leucocarbo carunculatus*

Rare endemic

76 cm, 2.5 kg. Large black and white shag with pink feet. White patches on wings appear as a *white bar on the folded wing*; yellow-orange fleshy swellings (caruncles) above base of bill; other facial skin and throat (gular) pouch reddish in breeding season, otherwise grey-blue; eye-ring blue. **Habitat:** Coastal waters of Marlborough Sounds only. **Breeding:** May–Nov. [Sp 95]



**SHAGS**

Phalacrocoracidae

33 species worldwide in freshwater and marine habitats; 12 species breed in the New Zealand region, including 8 endemic species.

longest, and a web connects the inner toe with the long hind toe. In the breeding season, bare skin on the face becomes brightly coloured and contrasts with the eye and bill.

In New Zealand, all members of the Phalacrocoracidae are called shags, whereas elsewhere the term 'cormorant' is used for members of the genus *Phalacrocorax*. Foot colour varies between the three genera in New Zealand: black in the mainly freshwater *Phalacrocorax*, pink in the marine *Leucocarbo*, and yellow in the marine *Stictocarbo*.

Shags sometimes feed in flocks, but they typically roost in flocks and breed in colonies on cliffs or rocky islets, or in trees overhanging water, sometimes together with other shags.

Shags are medium to large, long-necked aquatic birds with a stiff, wedge-shaped tail, and moderately short, rounded wings, which black-footed shags hold out to dry when perched. They feed by diving from the water surface to catch fish and crustacea with their long hooked bill. They use their webbed feet to swim underwater. The outermost toe is

They have an elaborate series of ritualised courtship displays at or near the nest, a bulky platform made of sticks or seaweed. Their eggs have a chalky encrustation on the surface. Both sexes share incubation. The chicks are naked at hatching but soon develop down. Both parents regurgitate food for the chicks. If a predator approaches, chicks in tree nests overhanging water will jump well before they can fly, but they are adept at climbing back up to the nest.

**95. KING SHAG** *Leucocarbo carunculatus*

Plate 24

**Size:** 76 cm, 2.5 kg  
**Distribution:** New Zealand only. Breed on very small islands in the outer Marlborough Sounds – Duffers Reef, North Trio Islands, White Rocks, Sentinel Rock and possibly Stewart Island (southeast of D'Urville Island). They are sedentary and remain within the Marlborough Sounds, especially favouring 20–40 m deep water in the outer parts of Pelorus and Queen Charlotte Sounds.  
**Population:** In 1992, the population was 524 birds, with 166 nests recorded. Duffers Reef 69 nests, Trios 50 nests on two islets, White Rocks 30 nests, Sentinel Rock 17 nests, and possibly a few pairs on Stewart Island.  
**Conservation:** Protected threatened endemic. King Shags are sometimes illegally shot by fishermen, and a few birds are caught accidentally in fishing nets. Shags are now known to have a minimal impact on fish stocks, and few are now shot. King Shags are very wary, and some nests fail if boats approach colonies too closely.  
**Breeding:** Nest in colonies on small exposed islands, sometimes only a few metres above high-water mark. The nest is usually a level platform about 0.5 m in diameter, made of

twigs, branchlets and kelp, and cemented with guano. The breeding season is very long: nest-building activity picks up in March and reaches a peak in May. Laying is mostly in May–June. They lay 1–2–3 pale blue eggs (65 x 41 mm). There is no information on incubation or fledging periods.  
**Behaviour:** Sometimes roost in flocks on rocks or on mussel-farm buoys, but feed solitarily. Birds from the Duffers Reef colony fly low and directly to their feeding grounds on average 8 km away. They spend much time early in the season collecting nest material or circling the colony. They are silent away from their colonies and make little noise at their colonies, except while displaying.  
**Feeding:** Diet is mainly seafloor-dwelling fish such as flounder, sand-eels, blue cod and red cod, but sole and other flatfish are likely prey. Crayfish and crabs are occasionally taken. Preferred feeding sites are in 20–40 m deep water with a flat bottom. Average dive times are c. 45 seconds, with a maximum of 90+ seconds recorded.  
**Reading:** Nelson, A. 1971. *Notornis* 18: 30–37. Schukard, R. 1994. *Notornis* 41: 93–108.