

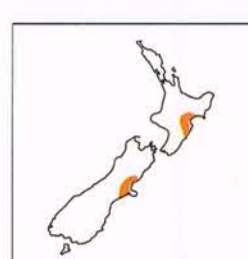
Aquatic birds with a small rounded head, short flattened bill, rounded body, short legs, webbed feet and a waddling gait on land. They fly strongly with neck outstretched. Sexes alike in swans and geese, but male ducks are usually more colourful than females. Lay large clutches. Chicks leave the nest within days but are guarded for several months until they can fly.

MUTE SWAN *Cygnus olor*

Rare European introduction

150 cm; ♂ 12 kg, ♀ 10 kg. *Very large white swan*. Bill orange with a black knob at the base, larger in breeding males. Juvenile grey-brown, paler than juvenile Black Swan; grey bill bordered with black at the base and lacking knob. Not mute but usually silent. Noisy 'swishing' flight with long neck extended. **Habitat:** Lakes, parks and private waterfowl collections. **Breeding:** Sep–Jan.

[Sp 121]



WATERFOWL

Anatidae

Swans, geese and ducks are found worldwide in freshwater and marine habitats. There are about 160 species, of which 14 (4 endemic, 4 native and 6 introduced) breed or have bred in the wild in the New Zealand region since 1920. A further endemic species (*Mergus australis*) became extinct in the early years of the 1900s, and another 6 species are vagrants to the region.

In New Zealand, most introduced and some native species of waterfowl are legally harvested during a strictly controlled shooting season. Each year, Fish and Game Councils determine the length and timing of the season and the allowable bag for each species, and monitor the licensing of hunters and annual hunting statistics. A voluntary organisation, Ducks Unlimited, works to create and protect wetland habitats suitable for waterfowl and is also involved in captive breeding programmes for some threatened and rare species.

All species have webbed feet for swimming in freshwater rivers and lakes, or in coastal waters. Their bill is modified for filter-feeding; water and food is sucked in at the tip of the bill and expelled through fine comb-like lamellae at the sides, which catch minute seeds and invertebrates. Although most feed in this way, some species mainly graze on aquatic or terrestrial vegetation and pick seeds (e.g. peas or wheat) off the ground, and the mergansers have serrated bills for catching fish.

Reading Frith, H.J. 1982. *Waterfowl in Australia*. Sydney: Angus & Robertson. Madge, S. & Burn, H. 1988. *Wildfowl: An Identification Guide to the Ducks, Geese and Swans of the World*. London: Christopher Helm. Johnsgard, P.A. 1978. *Ducks, Geese and Swans of the World*. Lincoln: Univ Nebraska Press. Williams, M. 1981. *The Duckshooter's Bag*. Wellington: Wetland Press.

121. MUTE SWAN *Cygnus olor*

Plate 29

Size: 150 cm; males 12 kg, females 10 kg
Distribution: Natural range is northern Eurasia from Great Britain to eastern Russia. They were introduced to New Zealand from Great Britain from 1866 onwards as ornamental birds, and maintain a tenuous hold in the wild on wetlands in Hawke's Bay, North Canterbury and Lake Ellesmere. Some live in a semi-feral state in many town parks, such as Virginia Lake, Wanganui, and stragglers or escapees from ornamental collections occasionally turn up in other wetlands.
Population: c. 100 in the wild in the 1990s, c. 20 in Hawke's Bay, the rest in Canterbury.
Conservation: Protected introduced species. Mute Swans once numbered several hundred birds in the wild, but the April 1968 *Wahine* storm destroyed much feeding habitat at their stronghold, Lake Ellesmere, and the population crashed. Ducks Unlimited have a captive breeding programme aimed at eventually releasing birds into the wild.
Breeding: Birds establish their territories in August and start building their nest in September. They usually nest solitarily, but at Harts Creek, Lake Ellesmere, they formerly nested in a colony, although each nest was screened by raupo from neighbouring nests. The nest is usually floating in shallow water or beside a slow-flowing stream or lake. It is a huge mound of grass and leaves of raupo, flax and rushes, topped with a shallow bowl

lined with a little down.
 Laying is from late September to December. They lay 4–7–11 white eggs (120 x 70 mm, 350 g) at 2-day intervals. The female alone incubates for c. 35 days. The eggs hatch within a day of one another, and both parents lead the cygnets to water within a further day and maintain guard through their development. The cygnets are initially covered in light grey down but slowly develop brownish-white juvenile plumage and fledge at 120–150 days old. In Britain, most females start breeding at 3 years old and most males begin at 4 years old. Once paired, they remain together for life. The oldest banded bird in Britain lived over 24 years.
Behaviour: Non-breeding and moulting Mute Swans form small flocks, but breeding adults usually remain as pairs and become very territorial when breeding; the cob (male) aggressively defends his pen (female) and nest from intruding birds and people by hissing at them and striking out with his wings, and they have been known to fight other cobs to the death. Despite their name, Mute Swans are quite vocal, with a variety of quiet honks, snorts and hisses.
Feeding: Diet is mainly leaves of submerged aquatic plants, which they reach by up-ending, willow leaves plucked from overhanging trees, or grass and clover grazed near the edge of the water. These are supplemented

by some aquatic invertebrates and even the odd fish, tadpole or frog.

Reading: Birkhead, M. & Perrins, C. 1986. *The Mute Swan*. London: Croom Helm.