

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.

CHESTNUT-BREADED SHELDUCK *Tadorna tadornoides*

Rare native

65 cm; ♂ 1600 g, ♀ 1300 g. Like male Paradise Shelduck, but *undertail black and chest and lower neck orange-chestnut, bordered above by thin white collar*. Male has upper back and breast pale orange-chestnut, thin white collar, and occasionally has a small white patch at base of bill. Female has darker orange-chestnut upper back and breast, very thin white collar and white patches at base of bill and around eye. Juvenile like female but smaller, duller and lacks collar. Often seen with Paradise Shelduck in NZ. **Habitat:** Freshwater and brackish lakes. First recorded in 1973 and have bred at least twice in eastern South I. **Breeding:** Season unknown in NZ. [Sp 127]



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.

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Tadorna tadornoides Plate 30

Other names: Australian Shelduck, Mountain Duck

Size: 65 cm; males 1600 g, females 1300 g

Distribution: Breed in southwestern and southeastern Australia and in Tasmania. They are mainly sedentary, although birds move several hundred kilometres between breeding territories and traditional moulting sites, including crossing Bass Strait. In drought years, some are forced to seek more distant moulting sites; vagrants reach northern states and Norfolk Island.

First recorded in New Zealand at Hokitika in January 1973, but small invasions occurred in 1982–83 and 1984–85, with many records of singles and some flocks of up to 22 birds throughout the North and South Islands, on The Snares and on Auckland and Campbell Islands. The number seen gradually declined, except around Lakes Elterwater and Grassmere in coastal Marlborough, where a few have been seen regularly in late summer and autumn during the 1990s. Further individuals or small flocks have appeared from time to time, e.g. a pair at Raoul Island (March 1994), three on Pitt Island (December 1997), and three in the Manawatu (April 1998).

Population: In 1983, at least 56 birds were in New Zealand, but 10 years later there were probably fewer than 20 birds, are likely to breed. The male's alarm call, a loud, deep honk, is answered by the female's higher-pitched call.

Feeding: Graze on grass, clover and weeds,

mostly in Marlborough.

Conservation: Protected self-introduced native. They maintain only a tenuous hold, and breeding has been confirmed only twice: a pair with half-grown young at Lake Tekapo in January 1985, and a pair with three flying young at Lake Grassmere in March 1991. They are probably mistaken for Paradise Shelduck during the shooting season.

Breeding: Not studied in New Zealand. In Australia, laying is mostly in July–October, extending later in wet seasons. The nest is usually in a hole in a living or dead tree, in a hole in the ground, or under dense bushes. The clutch is 4–9–19 white eggs (69 x 49 mm, 88 g), laid daily, but those of 10+ eggs are probably laid by more than one female. The female incubates for 30–33 days and the ducklings are led from the nest to open water, which can be over a kilometre away. The ducklings have a striking pattern of brown and white down, but when the chicks fledge at c. 70 days old, they look like the adult but are smaller, duller and have white flecking on the face, lack the white collar and have a light brown chest and upper back.

Behaviour: In New Zealand, Chestnut-breasted Shelducks have been seen mainly in small flocks at lakes likely to be used as moulting sites, seldom at places where they and also feed on grass and weed seeds, and on aquatic vegetation, which they obtain from on the surface or by up-ending.

Reading: Heather, B.D. 1987. *Notornis* 34: 71–77.