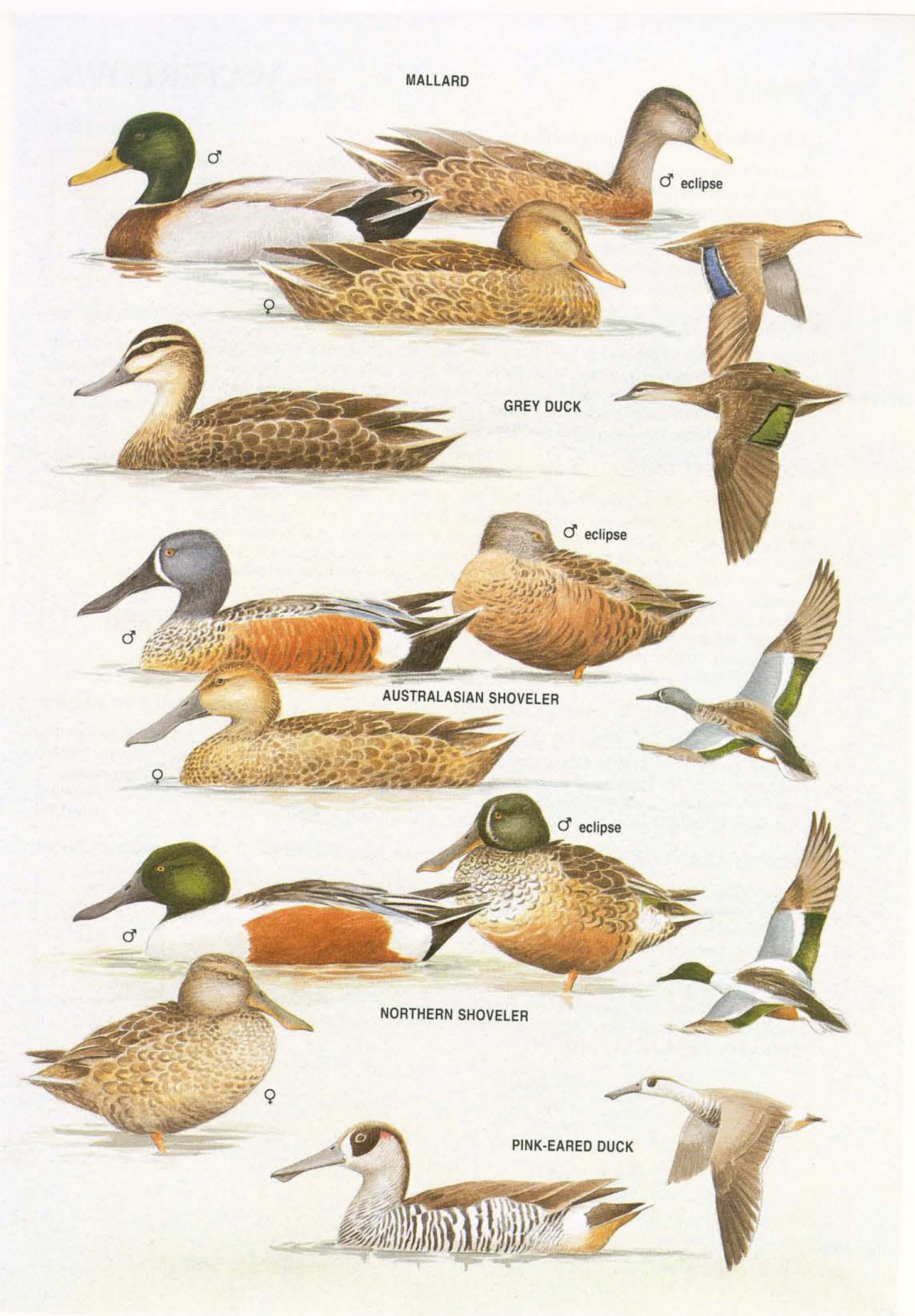


Aquatic birds with a small rounded head, short flattened bill, rounded body, short legs, webbed feet and a waddling gait on land. They fly strongly with neck outstretched. Sexes alike in swans and geese, but male ducks are usually more colourful than females. Lay large clutches. Chicks leave the nest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

MALLARD *Anas platyrhynchos*

Abundant European introduction

58 cm; ♂ 1300 g, ♀ 1100 g. The familiar duck of parks and farm ponds. All have orange legs and feet, and a blue speculum bordered with thin black and broader white bands front and back. Breeding male has dark glossy green head, chestnut breast, pale grey body, black rump and undertail; bill yellow-green. Female is streaked and spotted brown and buff on body and wings; bill brownish grey with orange at base, sides and tip. Eclipse male like female but has greyer head and neck, with remnants of green on crown and nape, and chestnut wash on breast. Juvenile similar to female. Variable plumage because of interbreeding with Grey Duck. Feeds by dabbling on water surface or by upending; also grazes and eats cereals. Rises nearly vertically from water and flies with fast shallow wingbeats. Female call the well-known 'quack, quack'; male call a soft high-pitched 'quek'. **Habitat:** Wetlands, estuaries, rivers, farm ditches, parks and cereal crops. **Breeding:** Jul–Jan. [Sp 130]



WATERFOWL

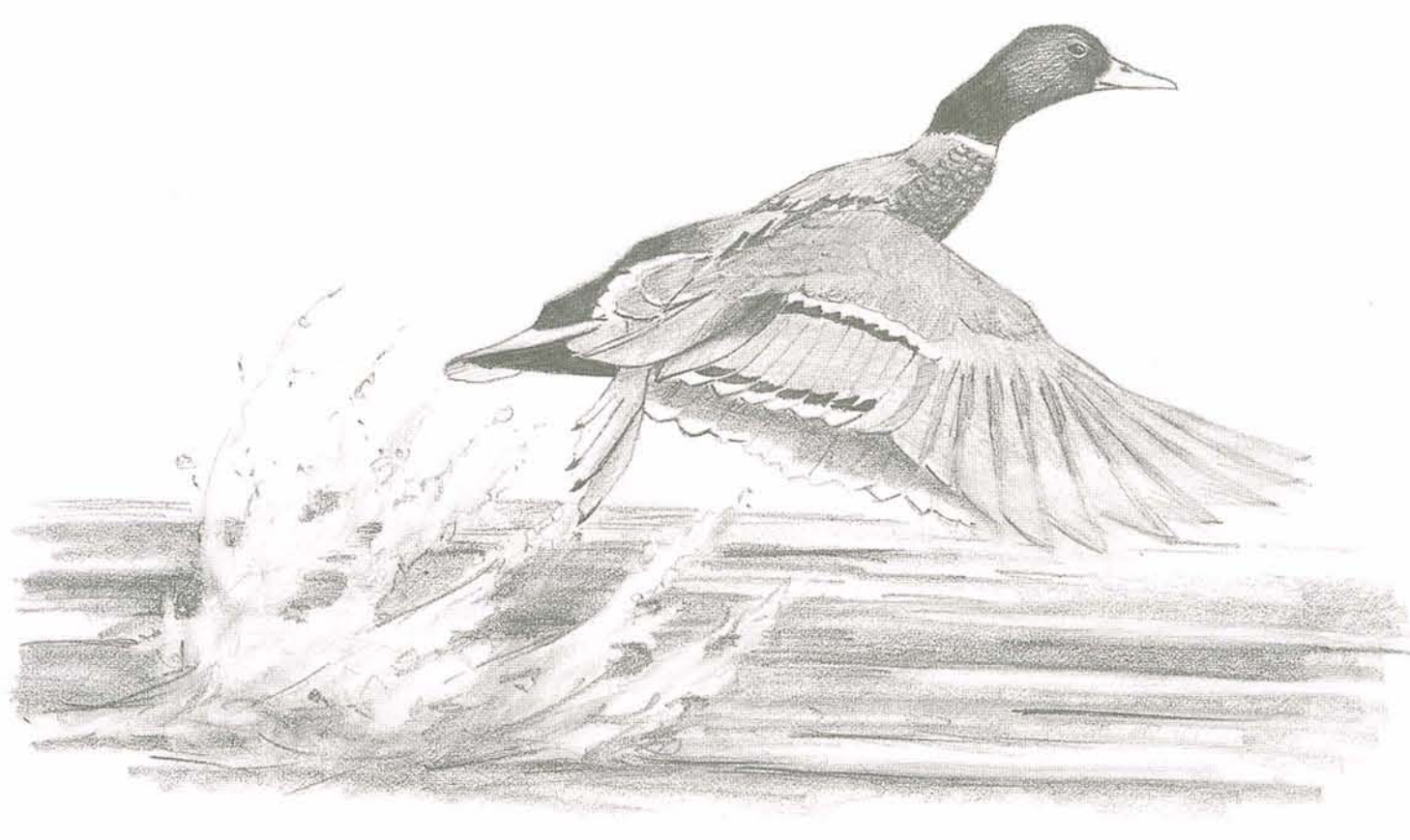
Anatidae

Swans, geese and ducks are found world-wide 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.



130. MALLARD *Anas platyrhynchos*

Plate 31

Size: 58 cm; males 1300 g, females 1100 g
Geographical variation: Mallards in New Zealand were derived from both European and North American stock (*platyrhynchos*). In New Zealand, they interbreed with Grey

Ducks (*A. superciliosa*), and hybrids are common.
Distribution: Natural range is across the temperate Northern Hemisphere in Europe, Asia and North America. Birds of British

game-farm stock were first introduced to New Zealand from Australia in 1867. Acclimatisation Societies made many liberations up to about 1918, particularly in the southern South Island, but Mallards were not particularly successful until they were intensively bred and liberated in the 1930s and 1940s, and North American birds were introduced. Liberations continued up to 1960, when Mallards had become the most numerous and widespread waterfowl on the New Zealand mainland, using a wide variety of wetlands from town parks and small farm ponds to rivers and estuaries. They have colonised many offshore islands and the Chatham, Antipodes, The Snares, Auckland and Campbell Islands. Banding studies show that Mallards disperse widely throughout New Zealand, and one bird banded in Otago was shot in South Australia 16 months later. **Population:** In 1981, there were c. 5 million. The Mallard population grew until about 1985, but have declined since to c. 3 million. **Conservation:** Partially protected introduced species; legally harvested in the duck-shooting season, with the take controlled by daily bag limits for licensed hunters, and legally shot under licence when they damage farm crops. **Breeding:** Pair formation begins in the autumn flocks, and by July pairs have formed and feeding territories established. The nest is a bowl of grass with down added as incubation proceeds, usually under dense vegetation or sometimes simply in tall grass or in a hollow tree or fork; not far from water. First clutches are laid between late July and October, with re-nesting up to the end of December. They lay 10–13–16 pale greenish or creamy eggs (58 x 43 mm, 60 g). Eggs are laid daily, usually about dawn. The male guards the female during laying but then leaves her to incubate alone for 26–28 days. The female leads the ducklings to water soon after they hatch. Broods of up to 35 ducklings following a single female have been reported, but these may have been from a nest in which

more than one female laid or when two or more broods had coalesced. The young are initially covered in dark brown down with yellow facial markings and underparts, but they quickly develop feathers and fluff at 55–60 days old. The young disperse widely. About half die before they start breeding at 1 year old. Adults live on average 2.5 years, but some birds live much longer, the oldest recorded in the wild in New Zealand being over 26 years old. **Behaviour:** Males commence moult in November, females start about a month later, and in December–January large flocks of moulting birds congregate on freshwater lakes. They stay well away from the shore during the day but feed on the adjacent shore at night during the 3 weeks they are flightless. At this time, flocks of 1000+ birds have been seen at Lakes Wairarapa, Ellesmere and Tuakitoto. The flocks break up in late summer, but during the duck-shooting season Mallards regroup on protected wetlands such as town lakes and reserves. In autumn and winter, Mallards have an elaborate set of courtship displays and males often gather around and harass lone females. Males have a soft, high-pitched 'quek'; females are more vocal with their characteristic loud, repeated 'quack quack quack'. **Feeding:** Diet is mainly aquatic vegetation, which they get by up-ending or dabbling in shallow water, taking seeds from the water surface or growing plants. They often graze grass and clover. Ducklings and females forming eggs take many aquatic invertebrates such as small snails, insect larvae and water beetles. Mallards also feed on grain, peas and beans in stubble after the crop has been harvested, and flocks sometimes feed in standing crops, causing considerable damage by knocking down and trampling plants. **Reading:** Balham, R.W. 1952. *Emu* 52: 163–191. Gillespie, G.D. 1985. *J Appl Ecol* 22: 347–356. Gillespie, G.D. 1985. *Auk* 102: 459–469.