

Medium to large landbirds with short bill, small head, rounded wings and short feathered legs. Sexes alike. Calls simple and often repetitive variations of 'coo'. Flight strong, direct and often noisy. Aerial displays of stall dives are part of breeding displays. Can breed at any time of year if food supplies are suitable. Lay 1–2 white eggs on a flimsy platform of sticks. Short incubation and nestling periods; young fed 'crop milk' and, later, other regurgitated food. They often fledge well below adult weight, with short wings and tail, and dull bill and feet. All are herbivorous; the New Zealand Pigeon feeds on fruit and foliage, the three introduced species feed on seeds, especially grain.

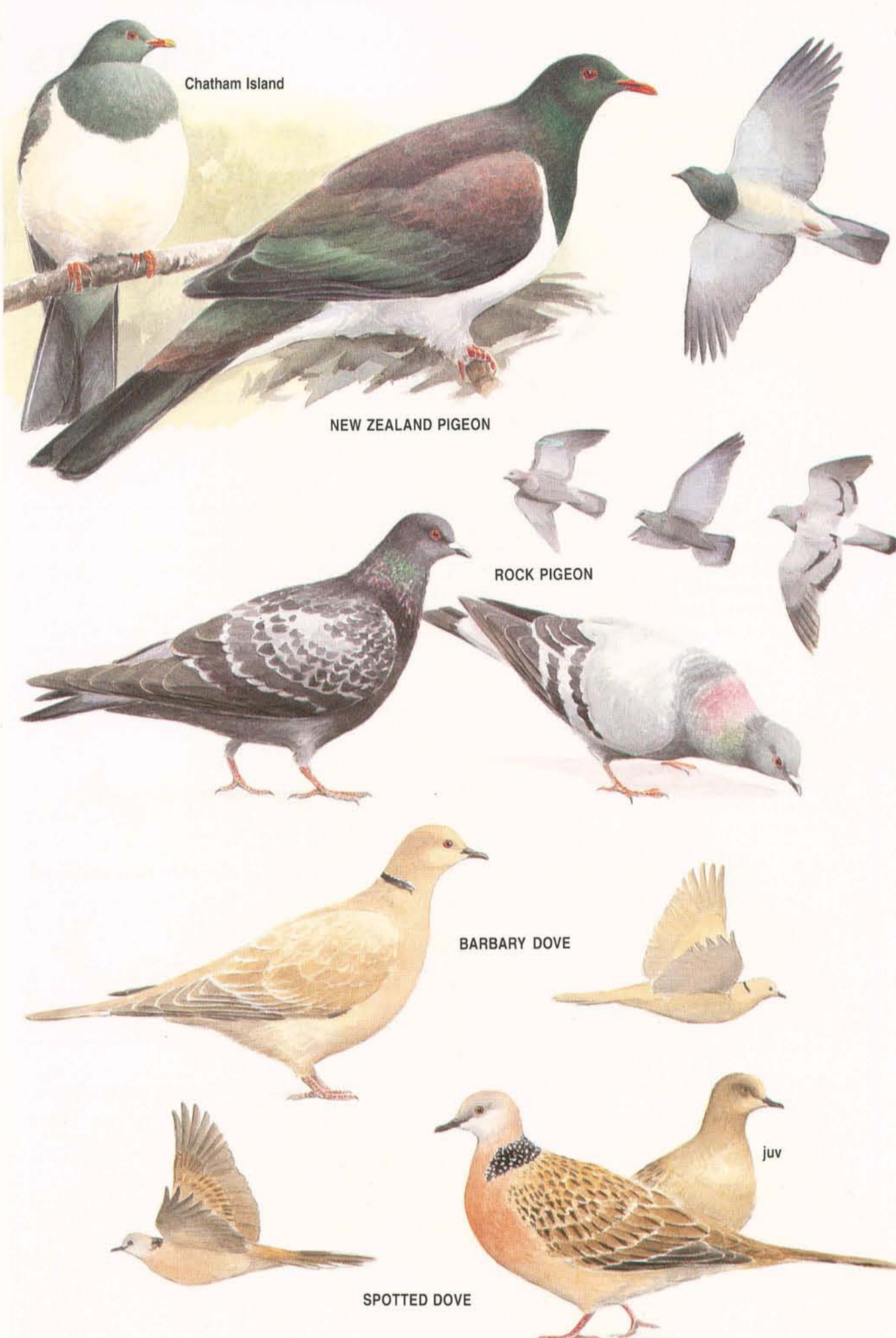
**ROCK (Feral) PIGEON** *Columba livia*

Common European introduction

33 cm, 400 g. Highly variable plumages seen in descendants of domestic and racing pigeons. In the wild form, the plumage is mainly blue-grey, with sides of neck glossy green and purple; rump whitish; two prominent black bars across the wings; dark tip to the tail. Bill leaden; feet pinkish. Flight fast and direct, with flicking wingbeats; pointed angled wings, and short tail. **Habitat:** City parks and streets; grain stores, wharfs and railway stations. In rural areas, favours drier arable farmland. Often nests on cliffs and caves in river gorges and on sea coast. **Breeding:** All year, peak Sep–Feb.



[Sp 255]



**PIGEONS and DOVES**

Columbidae

About 290 species worldwide; 1 is endemic to New Zealand and 3 have been introduced.

Usually the larger members of the family are called pigeons, and the smaller ones, doves.

Pigeons and doves have plump bodies with short legs and necks, small heads and short, straight bills. The plumage is soft, dense and loose, and some have brilliant or iridescent colouring. They feed mainly on vegetable matter and can be split into two groups: grain-eaters and fruit-eaters. Both groups supplement their diet with foliage, buds and flowers. Pigeons and doves have a large crop for storing grain or fruit. The fruit-eating pigeons play an important ecological role in forest regeneration, transporting intact seeds of trees and shrubs and depositing them at a new site.

Unlike most birds, pigeons can drink without raising their heads to swallow. They are strong fliers and have aerial displays in which the bird stalls and dives with wings and tail held stiffly, and they also clap their wings together above their backs during display flight.

The nest is rudimentary, usually a flat basket of interwoven twigs in a tree or on

the ledge of a cliff or an artificial structure. All species lay only one or two small eggs; most granivorous species lay two eggs, and most fruit pigeons lay only one. The total clutch weight, at on average 9% of female body weight, is the lightest of all bird groups. The breeding season is usually determined by suitable food being available, and normally several broods are reared each year. This is helped by having very short incubation and fledging periods, and the young usually fledge well below adult weight. Clutches are sometimes overlapped, eggs being incubated in one nest while chicks are still being fed in another.

Apart from Emperor Penguins and flamingoes, pigeons and doves are the only birds to produce food for their chicks. They feed their chicks (sometimes called squabs) crop-milk, a protein-rich, cottage-cheese-like secretion from the crop wall. At first, crop-milk is the only food, but as the chicks grow, regurgitated foods form an increasingly large part of the diet.

**Reading:** Goodwin, D. 1970. *Pigeons and Doves of the World*. London: British Museum. Robertson, H.A. 1988. *J Zool (Lond)* 215: 217–229.

**255. ROCK PIGEON** *Columba livia*

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**Other name:** Feral Pigeon

**Size:** 33 cm, 400 g

**Geographical variation:** Over 200 varieties of dove-cote or racing pigeons have been selected through thousands of years of domestication. Rock Pigeons in towns are continuously supplemented by lost dove-cote or racing pigeons, and so have more variable plumages than rural birds, which are mainly like the original Rock Pigeon plumage type. **Distribution:** Natural range is Europe, North Africa, western Asia and India. Domesticated birds were taken from Europe to most parts of the world. Early settlers brought birds to New Zealand, and they quickly reverted to the wild and established feral populations in the North and South Islands, but mainly in the cropping districts of Hawke's Bay, Marlborough, Canterbury and Otago, and in cities and large towns. City pigeons are sedentary, frequenting city parks and grain-handling and storage facilities, but rural birds often commute over 20 km between their roosting and breeding sites and their feeding grounds on newly sown crops or stubble. **Population:** Widespread and locally common.

**Breeding:** Breed solitarily on buildings or under bridges, and the territory is defended all year, but they also nest in small colonies on cliffs high above a river or the sea, on offshore rock stacks or in sea caves, and rarely in a tall tree where a broken branch or old nest provides a flat platform. The nest is a simple platform of straw and twigs on a ledge. They can breed at any time of year, depending on food being available, but the peak is in spring and summer, and the low is late autumn. Rock Pigeons re-nest up to five times each season, sometimes while they are still feeding young in another nest. In a normal

season, they probably raise 2–3 broods each year.

The clutch is 1–2–4 white eggs (39 x 29 mm; 19 g), but those of over 3 eggs are probably laid by more than one female. Both adults incubate for c. 17 days and brood the chicks for the first week. Chicks are at first fed just crop-milk, a protein-rich secretion from the crop wall of both adults, but as they grow, regurgitated food forms an increasingly large part of the diet. The chicks fledge at c. 30 days old at about 84% of adult weight and quickly become independent. The young are capable of breeding at 6 months old.

**Behaviour:** Rock Pigeons are usually seen feeding or roosting in loose flocks, and they commute in tight, fast-flying flocks between roosts and feeding places. In parks, birds can be seen displaying at any time of year, the male bowing and strutting around the female with his neck arched and chest puffed out. They also perform aerial displays where the male flies with slow, deliberate wingbeats interspersed with gliding with wings held stiffly upwards. Calls are variations on a rippling coo of three notes: 'oor-roo-cooo'. **Feeding:** In towns, Rock Pigeons readily take scraps of food from people, and spilt grain. In rural areas, they feed on newly sown or stubble grain, peas, maize, beans, clover and weed seeds, supplemented with occasional invertebrates such as snails, worms and slugs. Rock Pigeons can cause serious damage to newly sown pea and bean crops, as a flock can work systematically through a crop day after day.

**Reading:** Dilks, P.J. 1975. *NZ J Ag Res* 18: 87–90. Dilks, P.J. 1975. *Notornis* 22: 295–301. Murton, R.K. et al. 1972. *J Appl Ecol* 9: 835–874. Robertson, H.A. 1988. *Ibis* 130: 261–267.