

Passerines are the largest group of birds. They are small to medium sized land birds found worldwide, except on Antarctica. All species have four toes, three pointing forward and one back, well-adapted for perching. Most species are song-birds, with complex musical calls, but there are exceptions (e.g. crows). They show great diversity of form, behaviour and breeding biology.

ROOK *Corvus frugilegus*

Locally common European introduction

45 cm; ♂ 425 g, ♀ 375 g. A large glossy black crow with shaggy feathered thighs. Adult has bare whitish face. Juvenile and immature have faces feathered black. In flight, long broad 'fingered' wings, broad roundish tail. Flight strong and direct, but languid. Feeds mainly on ground; walks sedately with occasional hops. Feeds, roosts and nests in flocks. Often wary and give coarse 'caw' or 'kaah' calls if disturbed or in flight. **Habitat:** Pasture and cultivated paddocks, farm shelterbelts, especially tall gums and pines. **Breeding:** Aug–Dec. [Sp 328]



CROWS and JAYS

Corvidae

About 105 species worldwide; 1 introduced to New Zealand.

large, powerful, straight bills. They are omnivorous and feed mainly on the ground in open or lightly wooded country. They have loud, simple, often harsh calls.

Medium-to-large mainly black birds with

328. ROOK *Corvus frugilegus*

Plate 73

Size: 45 cm; male 425 g, female 375 g
Distribution: Natural breeding range is Europe and Asia, east to Siberia and Mongolia; many migrate south to winter around the Mediterranean, in Iran and the northern part of the Indian subcontinent. Several hundred birds were introduced into New Zealand by Acclimatisation Societies in 1862–74. Liberations in Nelson and Auckland failed, even though some Auckland birds persisted to 1905; however, liberations in Hawke's Bay and Canterbury were successful, even if they spread very slowly at first. In the first 50 years to 1920, Rooks in Hawke's Bay had spread only 30 km. Although colonies established near Feilding in the 1920s and near Pirinoa, southern Wairarapa, in 1930, the spread was very slow until numbers built up to pest levels in Hawke's Bay, leading to shooting and poisoning in the 1960s and 1970s. Displaced Rooks then spread rapidly and established colonies near Miranda (Firth of Thames), Tolaga Bay (Gisborne) and Waitotara (Taranaki) in the 1960s; in southern Hawke's Bay and at Aokautere (Manawatu) in the 1970s; in southern Waikato in the 1980s; and in the Pohangina Valley and Taihape area in the 1990s. Rooks in Canterbury spread less than 50 km in the first 100 years, except for the establishment of a colony near Middlemarch (North Otago). Rooks are capable of dispersing widely, with mainly juveniles seen in Northland, Wellington, Southland and on Chatham and Stewart Islands.

Breeding: Occasionally a pair of Rooks nest in isolation, but they usually nest in colonies of 20–100 pairs, and of up to 900 pairs. Even though most birds roost away from their colony in winter, they usually visit the colony each day, in the early morning and sometimes again in the late afternoon. Nest-building begins in August. The nest is a large untidy platform of twigs and lined with small twigs and leaves, in the top of a tall tree such as a pine, macrocarpa or gum. Laying is from late August to mid-November; most late nests are replacement clutches.

They lay 1–3–4–7 pale greenish-blue eggs (39 x 28 mm, 16 g) with brown blotches. The female alone incubates for 15–17–19 days and broods the nestlings, but the male feeds both the chicks and the female. The fledging period is 26–33–38 days, shorter for smaller broods. Some Rooks breed at 1 year old, especially in establishing colonies or in colonies recently reduced by poisoning, but usually they do not start nesting until 2–3 years old. Two Rooks banded in Hawke's Bay as adults were killed when at least 11 years old, and in Europe the oldest Rook lived at least 19 years. **Behaviour:** Gregarious all year; breeding in colonies and roosting in 'parishes' (large communal roosts of up to 5000 birds from several colonies) and feeding in flocks. They are extremely wary, especially after being persecuted, and birds quickly take to the wing as danger approaches, and utter their characteristic 'caw' or 'kaah'; an occasional higher-pitched 'kiow' is uttered as the birds circle overhead. The 'caw' call is the usual contact call as Rooks fly in loose flocks.

Feeding: Diet is a mix of invertebrates and vegetable matter. The main prey are beetles (especially grass grubs), flies, caterpillars (especially porina), earthworms, spiders and wasps. When feeding on grass grubs, they

Population: Locally common in hill country and arable farmland in Hawke's Bay and formerly around Banks Peninsula. The total population in 1978 was just under 30,000 birds, of which c. 25,000 were in Hawke's Bay and 2500 in Canterbury. Since then, pest-control operations have greatly reduced populations, especially in Canterbury.

uproot infested damaged pasture in their search. Plant matter eaten includes walnuts, acorns, maize, cereals, pumpkins, seeds of peas and beans, stock feed, and occasional leaves of clover and grasses. In autumn, Rooks store walnuts by burying them in a tuft of grass or in a crevice between clods of ploughed soil, and then in late autumn and winter they search for and recover stored nuts. Birds feeding on newly sown crops methodically work their way along rows, extracting each seed in turn. They sometimes also damage ripening peas, and because of this Rooks in Hawke's Bay were declared a 'pest of local importance' in 1971 and 35,000+ birds were poisoned or shot in the next 6 years. The damage was much reduced on the Heretaunga Plains, but this control caused the rapid expansion in range of the species.

In the hand: Males are larger than females: wing 300–319–337 mm cf. 284–301–333 mm; bill 56–60–68 mm cf. 46–56–64 mm. The brood patch of the female in the breeding season is the only consistently reliable feature. Adults have a bare face, whereas juveniles have cheeks and chin covered in black feathers until about August, and nostrils covered in black feathers until about 1 year old. In spring and summer, juveniles have very worn blackish-brown wing feathers, whereas adults have glossy black wings.

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