

Most are secretive birds of wetlands and are rarely seen except when attracted by taped calls. Plumage is usually a pattern of black, white, brown and chestnut. Immatures are duller. Sexes alike. Body is narrow, for slipping through dense vegetation. Long unwebbed toes spread their weight. The short tail flicks as they walk. Bill stout and dagger-like in rails, shorter in crakes. Fly reluctantly when disturbed but are capable of sustained flight, mainly at night.

SPOTLESS CRAKE (Puweto) *Porzana tabuensis*

Locally common native

20 cm, 45 g. Small dark rail, secretive but responds to taped calls. Head and underparts leaden grey with a bluish sheen, upperparts plain dark chocolate brown, undertail black barred white. Bill short, black; eye and eye-ring red; legs reddish. Juvenile lacks sheen, and chin and throat dull white. Varied calls; usually sharp 'pit-pit', a repeated 'book' and a distinctive rolling 'purrrrrrrr', like an alarm clock going off and gradually running down. **Habitat:** Freshwater wetlands with raupo or sedge, especially in the North I; forest on some offshore islands. **Breeding:** Aug–Feb. [Sp 159]



RAILS, GALLINULES and COOTS Rallidae

About 140 species, of which 8 breed in New Zealand. Midden evidence shows that 8 other endemic species became extinct between the arrival of Maori, and European settlement, and the Chatham Island Rail *Rallus modestus* became extinct in about 1900. Two other species are vagrants to New Zealand, and a Corncrake *Crex crex* was reputedly killed near Nelson in 1865, but this record has not been officially accepted.

The rails are mainly aquatic birds, all capable of swimming well. In New Zealand, they range in size from the small Marsh Crake to the large flightless Takahe. Apart from the Pukeko and Weka, rails and crakes are secretive birds, usually skulking in freshwater swamps, and estuarine mangroves and reedbeds. On some mammal-free islands, however, they live on the forest floor. Rails have slim bodies that help them move through dense vegetation, moderately long powerful legs with long unwebbed toes that help them walk in wetlands, a short tail, which is flicked up and down as they walk or swim, and short broad wings. Apart from the flightless Weka and Takahe, rails have low, laboured flight by day, but at night they fly

higher and show good ability to colonise isolated islands. Island forms tend to become flightless.

The two species of gallinule breeding in New Zealand, the Takahe and the Pukeko, are believed to represent two invasions from Australia of the cosmopolitan Purple Swamp-hen *Porphyrio porphyrio*; the Takahe arrived several million years ago, and the Pukeko much more recently. Typical of ancient New Zealand birds, the Takahe has become larger and flightless.

The gallinules and coots have a bony frontal shield extending from the bill to cover the forehead. The legs of coots are quite short, and the toes have lobes of skin that help them swim.

Most species nest solitarily, but Pukeko form groups and several females can lay in the same nest. The cup-shaped nest is generally well concealed in dense swamp vegetation or among *Carex* clumps; however, coots construct an exposed floating platform attached to raupo or rushes. The downy young are capable of walking, running and swimming within days of hatching.

Reading: Ripley, S.D. 1977. *Rails of the World*. Toronto: M.F. Feheley.

159. SPOTLESS CRAKE *Porzana tabuensis*

Plate 36

Other names: Puweto, Putoto, Sooty Rail

Size: 20 cm, 45 g

Geographical variation: The subspecies *plumbea* of Australia and New Zealand is doubtfully distinct from the nominate *tabuensis* of the Philippines, Moluccas, New Guinea, Micronesia, Melanesia and south-western Polynesia.

Distribution: Widely distributed in Australasia and the South Pacific from the Philippines and Micronesia east to the Marquesas Islands of French Polynesia. Within New Zealand, they are in raupo- and sedge-dominated swamps throughout the North Island, but are sparsely distributed in raupo swamps and reedbeds in the South Island and on Stewart Island. They are seldom in flax-dominated wetlands. Spotless Crakes are common on some offshore islands such as the Three Kings, Motukawanui, Poor Knights, Tiritiri Matangi and Great Barrier Islands. They are also on small islands in the Kermadecs, and on Chatham Island.

Spotless Crakes are secretive and rarely seen; many records are of cat-killed birds being brought to houses, or by duck-shooters who have seen crakes lurking near their maimai. They are apparently quite mobile, probably flying at night, judging by occasional records of birds found in towns, far from their usual habitats, and their widespread distribution around New Zealand and in the Pacific. In the Waikato, a bird released 25 km from its banding site had returned within 6 weeks.

Population: Locally common on mammal-free offshore islands such as the Meyer Islets in the Kermadecs, the Poor Knights Islands, and in many raupo and sedge swamps in the northern North Island and in the Manawatu/Horowhenua dune lakes.

Conservation: Protected native. The drainage of many lowland wetlands and introduced mammalian predators have undoubtedly had a major impact on Spotless Crakes, but because of their very secretive nature, they are probably more common than the number of records suggest.

Breeding: Pairs remain on territory all year. They lay from late August to January, mostly September–October, 2–3–4–5 pinkish cream eggs (30 x 22 mm, 9 g) in a bulky, cup-shaped nest loosely woven out of grass and sedge. In swamps, the nest site is usually raised 30–50 cm above the water level beside the pedestal of a *Carex*, and often under a canopy of dead *Carex* tillers and an overstorey of tall raupo, willow, manuka or cabbage trees to protect the nest from the elements. On islands, they nest on the ground, under dense cover. Clutch size and egg size increases through the season. Both sexes incubate for 20–22 days. The chicks, which are initially covered with black down, leave the nest within 2 days and are looked after by both parents during the 4–5 months until they reach adult size.

Behaviour: Little is known, as the birds are shy and cryptic, and live in dense vegetation. Spotless Crakes are more often heard than seen, and usually they are found by playing their taped calls in suitable habitat. They have a wide variety of calls; those usually heard from swamps are sharp 'pit-pit' calls, a single or repeated 'book' and a distinctive rolling 'purrrrrrrr' call like an alarm clock going off and gradually running down. Most unsolicited calls are heard at dawn and dusk, when the birds are probably most active.

Feeding: Diet is a mixture of invertebrates such as worms, spiders, beetles, snails and insect larvae, and seeds of aquatic plants or fallen fruits. In swamps, they rarely come into the open but sometimes feed on muddy margins or in channels through raupo; however, on predator-free islands they readily feed in leaf litter on the forest floor by day.

In the hand: From a small sample (n = 12), it appears that male Spotless Crakes have longer bills than females (18–21 mm [8] cf. 16–17.5 mm [4]).

Reading: Hadden, D. 1970. *Notornis* 17: 200–213. Kaufmann, G. 1987. *Notornis* 34: 207–216. Kaufmann, G. & Lavers, R. 1987. *Notornis* 34: 193–205. O'Donnell, C.F.J. 1994. *Notornis* 41: 211–213. Onley, D. 1982. *Notornis* 29: 9–21.