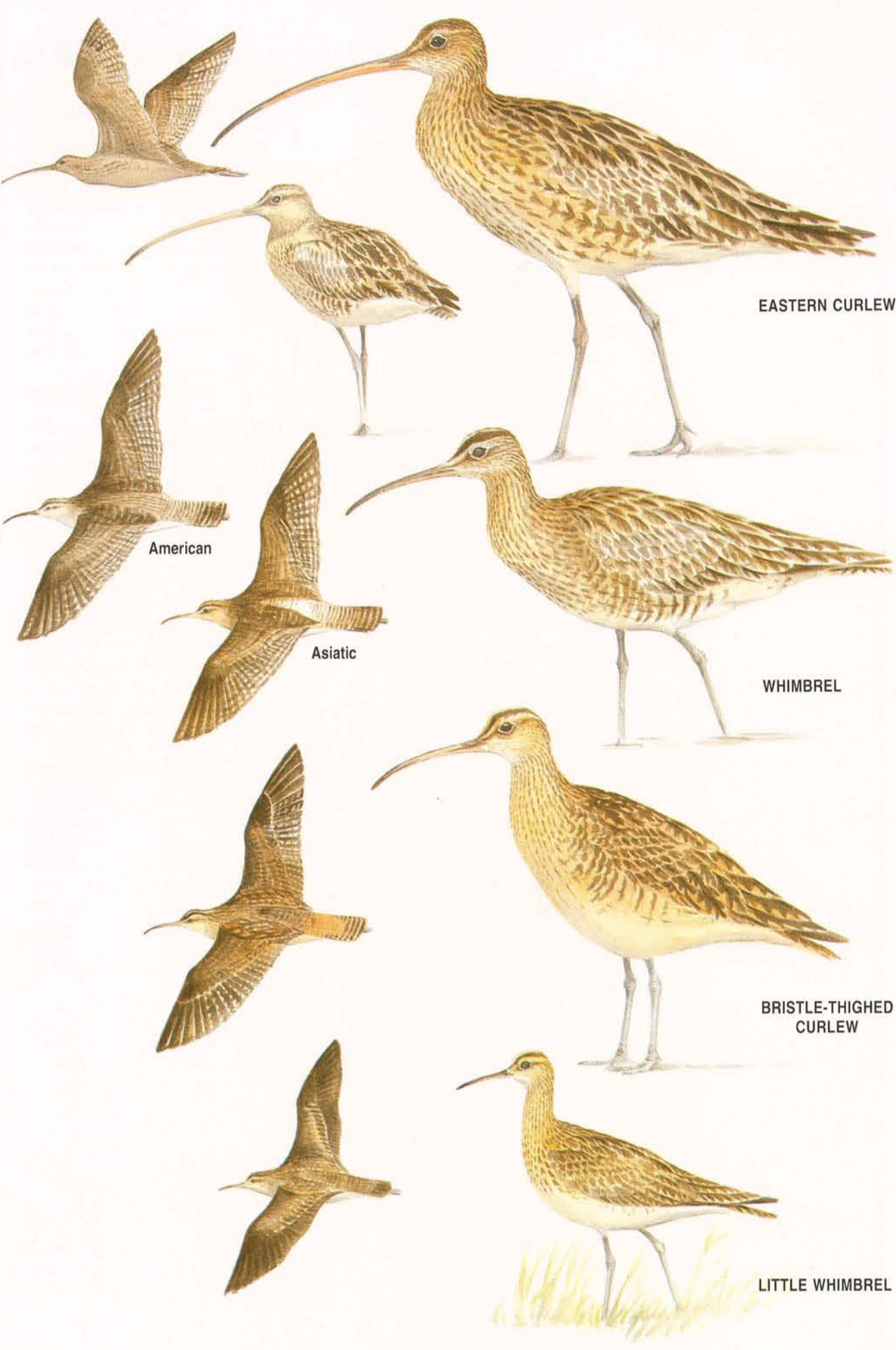


A large diverse group of birds of estuaries, coasts, riverbeds and farmland. Most are long-legged and feed in or near shallow water. Bill shape is varied; short and stubby in those (e.g. dotterels) that peck from the surface, but longer in those that feed in shallow water (e.g. stilts), or probe deeply (e.g. godwits). Flight strong and direct. Often form flocks while roosting or flying, but disperse to feed. Many species seen in NZ breed in the Arctic and arrive in September, with remnants of breeding plumage, and depart in March, often in breeding plumage. Most subadults and a few adults spend the southern winter here.

WHIMBREL *Numenius phaeopus*

Uncommon Arctic migrant

43 cm, 450 g. Medium-sized curlew with long (9 cm) downcurved bill, head marked boldly with white eyebrows and centre stripe over top of dark brown head. Asiatic subspecies (*variegata*) has off-white rump. American subspecies (*hudsonicus*) has speckled brown rump. Body completely streaked greyish brown and buff. Bill black, legs bluish grey. Flight call a rippling whistle of about 7 notes: 'ti-ti-ti-ti-ti-ti-ti'. Often very wary and stands alert near roosting flocks of waders. **Habitat:** Breeds Arctic. 100–200 visit NZ each summer (mainly Asiatic), especially at Parengarenga, Firth of Thames and Farewell Spit. [Sp 211]



SNIPE, SANDPIPERS, GODWITS and CURLEWS

Scolopacidae

About 79 species, of which 2 breed in New Zealand (non-migratory snipe) and 32 reach New Zealand as migrants for the northern winter.

Group have caught over 4000 Arctic migrants in the Auckland area, and some of these have been marked, to enable resightings, with white plastic leg flags.

Apart from stints (known as peeps in North America), these waders have a slender bill that is as long as or longer than the head. In curlews and godwits, the bill is sensitive and flexible at the tip, and the mandibles open during probing in soft mud or shallow water. All have long, pointed wings, rapid flight, a long neck, long legs and, for birds, a short tail. Their eyes are smaller than those of plovers and dotterels, as suits their more tactile, less visual, feeding. Gregarious when not breeding.

The first Arctic migrants arrive in September–October, but others trickle into the country through November. Most leave in March–April, but a variable proportion of the summer population stays behind to spend the southern winter in New Zealand; most are probably yearlings, as few adopt breeding plumage, and so the number left behind provides an indication of the success of the previous northern breeding season.

Their food has not been studied in detail in New Zealand. They take a variety of mudflat-burrowing crabs, small amphipod and ostracod crustaceans, polychaete worms and small gastropod and bivalve molluscs. Their diet includes insect larvae and pupae of crane flies (Tipulidae), midges (Chironomidae), beetles and flies; they may also take spiders and earthworms. They swallow grass, sedge and rush seeds, but whether by accident or design is not known for certain. The various species probe to different depths according to the length of their bill. Most of the rapid, vigorous, sewing-machine probing of medium and smaller waders is exploratory, as often is the slower, more careful probing of godwits, curlews or whimbrels.

New Zealand is at the southern limit of many species, and some of the distances travelled are huge; it is possible that some of the migrants fly between New Zealand and China, Japan or the Aleutian Chain in a single flight, although most stop at least once to refuel. In order to undertake such a long journey, waders feed voraciously in the weeks before departure and often arrive late to their roosts. They lay down extensive fat deposits, their weight can increase to 50–75% above their normal non-breeding weight. On arrival, they are often exhausted and quite approachable, but quickly regain their condition. The adult Arctic migrants moult all their flight feathers during the southern summer, and so can be distinguished from juveniles, which do not moult or lose only a few feathers until the southern autumn.

The waders that migrate to New Zealand mostly breed in the arctic or subarctic tundra of the Northern Hemisphere and are strongly migratory. Those that breed furthest north tend to migrate furthest into the Southern Hemisphere, from the largest curlews to the smallest stints. The routes taken by the various species of wader are being elucidated by an extensive co-operative programme of banding and leg-flagging throughout the East Asian flyway. The New Zealand Wader Study

The sexes are alike, but females are often noticeably larger than males. The non-breeding plumage, as is mostly seen in New Zealand, is dull, the upperparts mottled or a uniform brown and grey, the underparts paler, sometimes with streaks and spots. Before leaving and while breeding, they are brighter, many species becoming much more rufous above and rufous or black below. The age of first breeding is 1–2–3 years, and many birds live to at least 15 years old.

211. WHIMBREL *Numenius phaeopus*

Plate 48

Size: 43 cm, 450 g

Geographical variation: Three subspecies: the nominate *phaeopus* breeds in far-northern Europe and western Siberia; the Asiatic Whimbrel *variegata* breeds in eastern Siberia and is the common form in Australasia; and the American Whimbrel *hudsonicus* breeds in northern North America and regularly reaches New Zealand in small numbers.

Hemisphere. Asiatic Whimbrels are a regular summer visitor to New Zealand. The most favoured places for small flocks of 10–60 birds are Parengarenga, Rangaunu, Whangarei, Kaipara and Manukau Harbours, the Firth of Thames and Farewell Spit. Smaller groups, usually ones and twos, may appear at any estuary or coastal lagoon in New Zealand. Recorded at the Kermadec and Chatham Islands.

Distribution: Breed widely in the lower Arctic and migrate to many estuaries and coasts in tropical regions and in the temperate Southern

American Whimbrels are also regular summer visitors; groups of up to five birds

join flocks of Asiatic Whimbrels at mainly the same favoured estuaries. Recorded at Chatham Island.

form small flocks at roost. Often they warily stay in water at the edge of a flock of Bartailed Godwit roosting on the tideline. They take off before the godwits take any notice of a distant intruder. Their tittering call – 'ti-ti-ti-ti-ti-ti-ti' – is readily heard from a passing flock of godwits.

Population: Whimbrels are about the sixth most numerous Arctic wader to visit New Zealand, c.100–200 each year. Approximately 95% are Asiatic and 5% American. A few birds of both subspecies overwinter.

Feeding: Diet is mainly crabs and marine worms, picked from the surface or taken by shallow probing.

Behaviour: Gregarious, usually seen feeding in small groups of up to five birds, but they