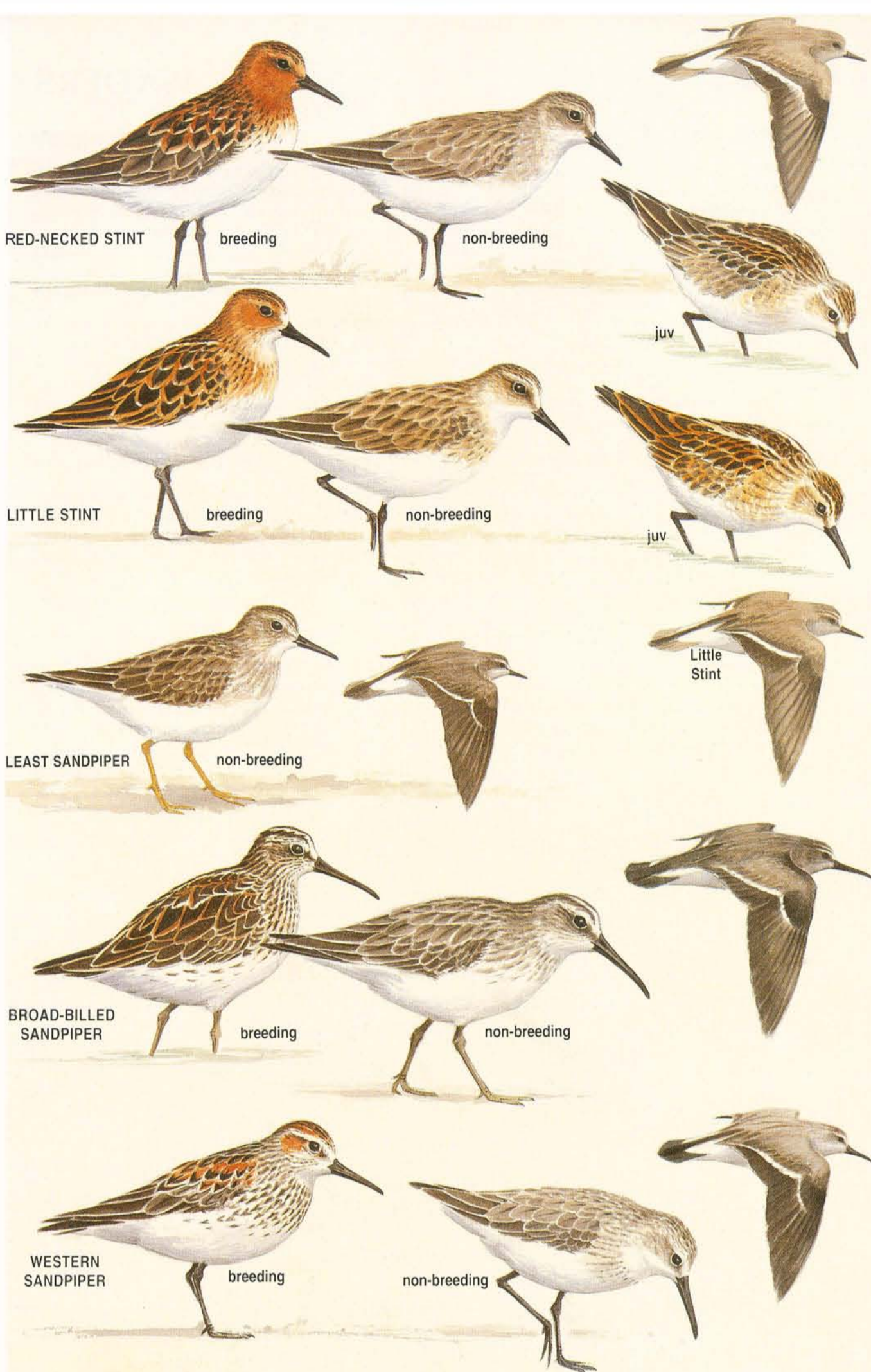


A large diverse group of birds of estuaries, coasts, riverbeds and farmland. Most are long-legged and feed in or near shallow water. Bill shape is varied; short and stubby in those (e.g. dotterels) that peck from the surface, but longer in those that feed in shallow water (e.g. stilts), or probe deeply (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.

**RED-NECKED STINT** *Calidris ruficollis*

Common Arctic migrant

15 cm, 30 g. Tiny wader with short straight black bill and short black legs. Non-breeding adult has forehead and eyebrow white; crown, neck and upperparts *pale grey* with brownish tinge, paler feather edges and black feather shafts. Breeding adult has crown and back blackish brown with rufous feather edges, *contrasting* with grey-brown pale-edged feathers on wing coverts; *sides of face, neck, chin and throat brick red*; underparts white. Juvenile like non-breeding, but crown and sides of breast washed pale rufous; back feathers dark rufous-edged, contrasting with greyer pale-edged wing coverts. Some show thin white V on back and double white eyebrow. In flight, white wingbar reaches base of primaries; white sides to uppertail contrast with black central stripe down rump and tail. Feeds by pecking with rapid sewing-machine action. **Habitat:** Breeds Siberia and Alaska. Migrates to Australasia. Several hundred reach NZ in summer, and some overwinter. Mainly at estuaries and coastal lakes, especially at Parengarenga, Manukau, Porangahau, Farewell Spit, Lake Ellesmere and Awarua Bay. [Sp 203]



**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 craneflies (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.

**203. RED-NECKED STINT** *Calidris ruficollis*

Plate 47

**Size:** 15 cm, 30 g  
**Distribution:** Breed in northern Siberia from the Taimyr Peninsula to the Bering Sea, and in northwestern Alaska. They migrate to the coasts of Malaysia, the Philippines, and Australasia, especially to southeastern Australia. In New Zealand, they are widespread in small flocks, which seldom exceed 40 birds. Favoured sites are Parengarenga and Manukau Harbours, the Firth of Thames, Porangahau Estuary, Farewell Spit, Lakes Grassmere, Ellesmere and Wainono, and Awarua Bay, but they use many coastal lagoons and estuaries from Northland to Southland. Stragglers have been recorded at Chatham Island and the Auckland Islands.  
**Population:** The fifth most numerous Arctic wader to reach New Zealand, but only some 100-250 visit each summer, whereas 200,000+

visit Australia. In winter, 5-50 remain, mainly at Lake Ellesmere.  
**Behaviour:** Gregarious; feeding in small single-species flocks, or with Banded Dotterels and Wrybills, and usually roosting with Wrybills, if present. Quiet in New Zealand; in flight, they sometimes utter a thin, high-pitched call.  
**Feeding:** Red-necked Stints feed mainly on tidal mudflats, sandflats and coastal lagoons with a thin film of moisture. They feed eagerly, with legs flexed and bodies low to the mud, running about with mouse-like rushes, their bills busily probing up and down like sewing machines. They also snatch and jab at the surface.  
**Reading:** Thomas, D.G. & Dartnall, A.J. 1971. *Emu* 71: 20-26.