

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.

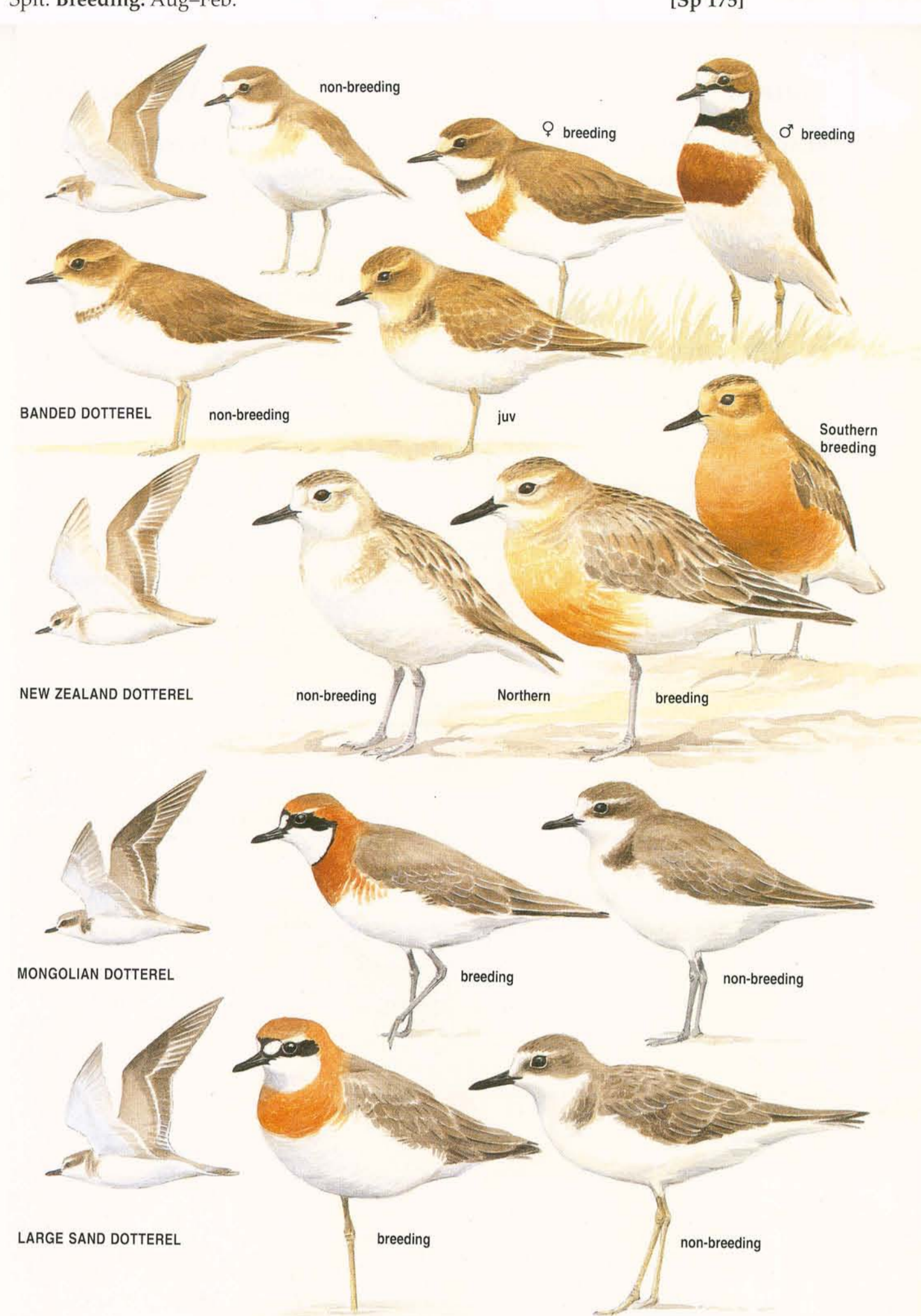
**NEW ZEALAND DOTTEREL (Tuturiwhatu) *Charadrius obscurus***

**Uncommon endemic**

25 cm, 160 g. *Large squat tame dotterel with large head and robust bill.* Breeding adult has upperparts brown, finely streaked dark brown, and whitish feather edges; underparts range from pale orange-buff to rich rufous; darker red in males and in southern subspecies (*obscurus*). Non-breeding adult is nondescript but *distinctly pale*; grey-brown upperparts have broad whitish feather edges; underparts white with obscure pale grey-brown breast band, often restricted to just the shoulders. Juvenile like a pale breeding adult but with buff feather edges and pale orange-buff wash on breast and belly, flecked dark brown on breast and flanks. In flight, white wingbar and white edges to rump and tail. Heavy black bill, tip slightly upturned; proportionately short olive-grey legs. Usual call a penetrating 'chip'. **Habitat:** Beaches, rivermouths and estuaries of northern NZ (*aquilonius*); also breeds on mountain tops of Stewart I (*obscurus*), after breeding moves to estuaries of Stewart I, Southland and Farewell Spit. **Breeding:** Aug-Feb.



[Sp 175]



**PLOVERS, DOTTERELS and LAPWINGS**  
*Charadriidae*

About 65 species, most of which are migratory. There are about 29 plovers and dotterels, of which 5 (formerly 6) breed in New Zealand and 8 visit as migrants from the Northern Hemisphere; 26 lapwings, 1 of which breeds in New Zealand. Some authorities place the Red-kneed Dotterel with the lapwings rather than the plovers.

In New Zealand, the terms plover and dotterel mean the same thing; there is no clear distinction. All are plumpish with a thick, short neck, short tail, small, rounded head

with a high forehead and bill shorter than the head, pointed and slightly swollen at the tip. The plumage is a blend of black, white, brown and grey, sometimes more colourful in breeding plumage. They often have a bold pattern in flight. They have a characteristic 'walk and stop' way of feeding.

Lapwings tend to be inland on pasture and around coastal wetlands. They have wattles on the face and spurs on the bend of the wing, and are noisy on the ground and in flight, by night as well as by day.

**175. NEW ZEALAND DOTTEREL *Charadrius obscurus* Plate 40**

**Other names:** Tuturiwhatu, Red-breasted Dotterel,  
**Size:** 25 cm; 160 g (*obscurus*), 145 g (*aquilonius*)  
**Geographical variation:** Two subspecies have recently been described: the larger and more boldly coloured Southern New Zealand Dotterel *obscurus* breeds on Stewart Island, and the smaller Northern New Zealand Dotterel *aquilonius* breeds on the coast of the northern North Island.  
**Distribution:** New Zealand only. Two discrete populations: North and Stewart Islands. In the North Island, New Zealand Dotterels breed on beaches, and especially near stream

mouths, of Northland, Auckland, South Auckland, the Waikato and the Bay of Plenty, and have recently colonised the Gisborne and northern Hawke's Bay coast. They breed from North Cape to Taharoa South Beach (south of Kawhia Harbour) in the west and to Mahia Peninsula in the east. They also breed on some offshore islands, including the Cavalli, Hauraki Gulf (Great Barrier, Waiheke, Motu-ihe, Browns, Ponui, Beehive), Great Mercury and Whale Islands, Rurima Rocks and Portland Island. A scarce visitor south to the coasts of Taranaki, Manawatu, western Wellington, and Hawke's Bay.

Some northern birds are sedentary and stay in their breeding places; others move a short distance to a flocking site at an estuary. The first arrivals are in mid-January; most arrive by late February. Most leave the flock site and return to their breeding places by the end of April.

former breeding areas of Stewart Island, and to find ways of breeding birds in captivity and releasing them in the wild to boost numbers.

On Stewart Island, they breed above the bushline, but some descend to tidal estuaries, mudflats and beaches to feed. In January-March, they move down to Paterson Inlet, and others cross Foveaux Strait to winter in coastal South Island, particularly near Cow Island in Awarua Bay. A few birds have been recorded in coastal parts of Nelson (Farewell Spit and Motueka Sandspit), the West Coast, Marlborough and Canterbury. Southern birds usually arrive back at their breeding grounds in September.

**Breeding:** Northern New Zealand Dotterels breed on sandspits, at stream mouths, on beaches, shellbanks, sandbanks and among low dunes from August to February. The nest is a scrape in the sand with little or no lining, often near an obvious marker such as a piece of driftwood, seaweed or a clump of vegetation. They also use harbour dredgings, oil-refinery grounds and areas beside airport runways.

New Zealand Dotterels were apparently breeding till the mid-1800s throughout the South Island, particularly in the Southern Alps and their foothills and on the braided riverbeds of Canterbury, moving to the coast in winter. They were probably exterminated partly by introduced predators and partly by being shot for food.

Southern New Zealand Dotterels breed inland on open, subalpine mountain tops, usually where vegetation is sparse or very low and often in rocky places. The nest is a depression among cushion plants lined with dried vegetation. Until recently, a few pairs also bred in the sand dunes at Mason Bay, Stewart Island.

**Population:** c. 1400 birds. *aquilonius* c. 1350 birds; holding their own or increasing with nest protection, but in some places where human disturbance is high their habitat is diminishing. *obscurus*: c. 65 birds in 1994; rapidly reduced by cat predation, especially on males, which incubate at night, and so probably only about 15 breeding pairs remain.  
**Conservation:** Protected threatened endemic. The dune areas and beaches preferred by northern birds are often changed by housing, pine plantations and plantings of marram grass to stabilise foredunes and sandspits. Human disturbance by people, their vehicles, dogs and stock may crush eggs and chicks, or leave eggs, chicks and adults open to predation, particularly by stoats, feral cats and Black-backed Gulls. Recent efforts to protect northern birds at selected breeding sites have greatly improved breeding success and may have led to their recent expansion of range.

Northern New Zealand Dotterels lay 2-3 pale olive to buff-brown eggs (44 x 31 mm), heavily marked with dark brown or black blotches; Southern New Zealand Dotterels lay 2-3 eggs (46 x 33 mm). The few clutches of 5 and 6 are probably laid by two females. Both sexes incubate for 28-32 days, females mostly by day, males mostly at night. The fledging period is 6-7 weeks. Juveniles of both subspecies are likely to wander, usually until c. 18 months old. Most young first breed in their second year, occasionally in their third year. The oldest bird lived over 31 years, but one individual, 'Wimble', may have lived at least 42 years if worn band numbers were read correctly.

With the southern birds, the aim is to control feral cats in the breeding areas and

**Behaviour:** Tame and approachable; often heard before being seen. The common call, often accompanied by head-bobbing, is a penetrating 'chrp', 'trrt' or 'prpp'. It is associated with alertness and mild alarm in the presence of a human or other intruder.  
**Feeding:** A wide variety of feeding habitats and foods, according to what is available. Commonest habitats are tidal estuaries, stream mouths and sandy beaches. They use a version of the 'walk or run-stop-peck' method typical of plovers. Diet is mainly aquatic and terrestrial invertebrates but

includes some small fish. Crabs are commonly taken, the larger ones bashed and eaten in pieces. Foot-paddling is recorded, as is sand-scratching, which is a means of flushing sandhoppers.

a variety of invertebrates, including insects, spiders and earthworms.

On the subalpine breeding grounds of Stewart Island, some birds fly down to tidal flats in Paterson Inlet to feed, but they also feed on wet herbfields and in seepages, eating

**Reading:** Barlow, M. 1993. *Notornis* 40: 15-25. Dowding, J. 1993. *New Zealand Dotterel Recovery Plan*. Wellington: DoC. Dowding, J.E. & Chamberlin, S.P. 1991. *Notornis* 38: 89-102. Dowding, J.E. & Murphy, E.C. 1993. *Notornis* 40: 1-13. Edgar, A.T. 1969. *Notornis* 16: 85-100.