

Notes on the occurrence of shorebird species in central Chile during southward migration

PETER COLLINS¹, ROSALIND JESSOP² & DORIS GRAHAM³

¹RMB 4009, Cowes, Victoria, 3922, Australia, e-mail: moonbird@waterfront.net.au; ²Phillip Island Nature Park, PO Box 97, Cowes, Victoria, 3922, Australia; ³14 Falconer Street, North Fitzroy, Victoria, 3083, Australia

Collins, P., Jessop, R. & Graham, D. 2003. Notes on the occurrence of shorebird species in central Chile during southward migration. *Wader Study Group Bull.* 101/102: 56–58.

Published reports of the arrival of Holarctic migrant shorebirds in the southern hemisphere are rare. On the W coast of South America the patterns of both northern hemisphere migration and intra-continental movements are complex and little known. During a visit to Chile in August–September 2000 we made opportunistic counts and observations of shorebirds between Viña del Mar (near Santiago) and Chañaral in the north. At this time of year Sanderlings, Whimbrels, Ruddy Turnstones and Surfbirds are returning from the northern hemisphere.

INTRODUCTION

During a visit to Chile in August–September 2000, we made opportunistic counts of shorebirds at various localities between Viña del Mar, near Valparaíso and Pan de Azúcar National Park, near Chañaral, 988 km further north (Fig. 1). We counted the following Nearctic-breeding migrants: Sanderling *Calidris alba*, Ruddy Turnstone *Arenaria interpres*, Surfbird *Aphriza virgata* and Whimbrel *Numenius phaeopus*. We also made observations of some resident species.

METHODS

Counts were made at various sites that were accessible by a small, two-wheel drive car between Viña del Mar and Pan de Azúcar National Park. The length of time spent at these sites varied between a few hours at Bahía Inglesa and a week at La Serena.

Birds were considered to be recently arrived migrants if they were seen to arrive off the sea, observed in an unsuitable area for feeding or in an apparently emaciated condition as evidenced by abdominal profile (Wiersma & Piersma 1995). Other indications of recent arrival used were tameness and the amount of retained (adult) breeding plumage. The latter was used with some caution, as some species such as Sanderling appear to lose their breeding plumage very quickly.

RESULTS

Nearctic migrants

Viña del Mar: The coast around Viña del Mar and Valparaíso and the industrial area of Concón are highly developed for tourism, which occupies almost every beach habitat. On 28 August, however, one Whimbrel and three Surfbirds were seen in an area known as the Rocks, near the Marine Institute. None of the Surfbirds had any breeding plumage, so they may have been non-breeding birds that had overwintered in the area (Hayman *et al.* 1988). However, it is not

known at what stage or how quickly this species loses breeding plumage; whether on arrival at or en route to the non-breeding grounds. Further north, a flock of Surfbirds showed 0–50% breeding plumage. The following day a group of Ruddy Turnstones were found in the same area and these retained a high proportion of breeding plumage, suggesting that they were recent arrivals. The estuary at Concón appeared to be suitable for waders apart from the fact that it was highly disturbed by people. No shorebirds were found there.

La Serena: The beach and promenade of La Serena are well known for its tourist facilities and are undergoing intensive development. During 4–10 September, daily counts of shorebirds were conducted along the sandy beach between the old lighthouse on the corner of Avenue Francisco de Aguirre and Avenue del Mar in Coquimbo a distance of about 9 km.

On 4 September, 20–30 Whimbrels and 20 Sanderlings were scattered along the beach. The following day Whimbrels had increased to 120. They occurred in small groups of no more than six and were very approachable, only flying when dogs or people came near.

A single Hudsonian Godwit *Limosa haemastica* was seen on the estuary near Coquimbo.

Sanderlings increased during the week with several small flocks of <20 and one of 150, 5 km further north. None of the Sanderlings showed any breeding plumage but were considered to be all adults. Juveniles, with their distinct brownish head, would have been easy to pick out.

Each afternoon, some time was spent sea-watching and on 7 September a group of 30 Whimbrel was seen flying south along the coast. They were not in a cohesive flock and it could have been a local movement. However, in view of the small flock-size encountered elsewhere in the region, they may well have been new arrivals. It appears that after arrival they spread out along the coast into feeding areas occupied by single birds or small groups.

On 10 September, there were only 10 Whimbrel and 50 Sanderling on the final count of the beach at La Serena. Apparently the birds that had arrived in the previous three days had moved on, and there had been no new arrivals.



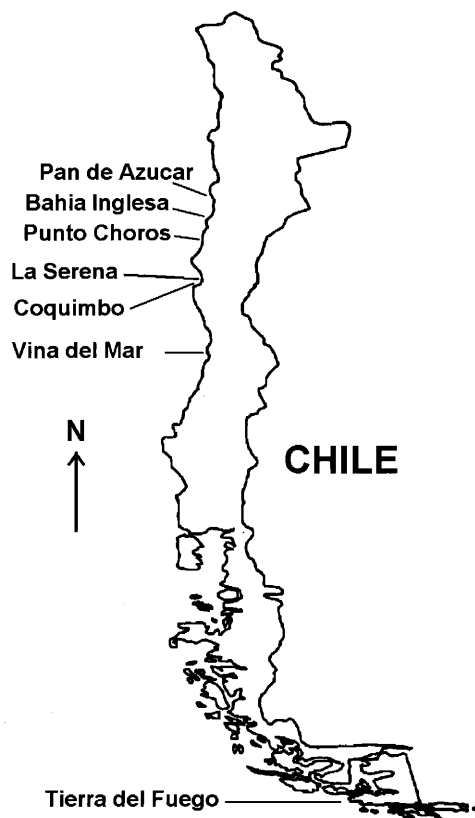


Fig 1. Map of Chile showing locations mentioned in the text.

Punto Choros: On the afternoon of 6 September, during a visit to a Humboldt Penguin *Spheniscus humboldti* colony near Punto Choros, 170 km north of La Serena, a flock of 23 Whimbrel arrived off the sea. The birds did not land on the coast but flew a few km inland. We searched for them, but could not find them. Earlier that day, on the road to Punto Choros, a flock of 13 Whimbrel were seen apparently roosting in the semi-desert, at least 2 km from the coast.

Later on 6 September, another group of 12 Whimbrels flew southwards along the coast and may well have been new arrivals. Other small groups of Whimbrels were found near a small lagoon to the south of Punto Choros town, near the mouth of Quebrade los Choros. When these were disturbed, they coalesced into a single flock of 33. These behaved similarly to the Whimbrels at La Serena. They were tame and, although they moved away from people, they did not fly or call in alarm. From our experience of Whimbrel in Australia, this is unusual behaviour; they are normally far more wary and vocal.

In a small wetland about 1 km inland from the mouth of the Quebrade los Choros, we found a group of 80 Baird's Sandpipers *Calidris bairdii*. They also displayed signs of recent arrival being very tame and showing no inclination to fly.

Bahía Inglesa near Caldera: On 12 September, we briefly visited this area, which is being developed for large-scale tourism. It includes a small tidal mudflat where we found 30 foraging Whimbrels. In a rocky area near the town, there was a group of 60 Surfbirds. The majority were adults, having some breeding plumage, but we considered that at least four were juveniles. These were in company with 40 Ruddy Turnstones, all of which showed >25% breeding

plumage. The majority of this mixed flock were actively foraging on the rocky shore. In common with most of the migratory waders we had encountered, these were incredibly tame.

Pan de Azúcar National Park, near Chañaral, was visited during 13–14 September. This is where the desert comes down to the coast. Four separate flocks of Whimbrels were seen arriving in the late morning and early afternoon. The first flock of 16 landed briefly in an area of sand dunes and, half an hour later, they were joined by a group of 10 that arrived off the sea. Two other flocks of 8 and 24 arrived 1½ hours later and landed 1 km further inland.

Resident shorebirds

Southern Lapwings *Vanellus chilensis* were present and either breeding or holding territory commonly throughout suitable habitats, which varied from market gardens and open grazed fields to areas of grassland in cities. We inferred that the birds were breeding because of their aggressive behaviour, including distraction display, when approached by people or dogs. This was similar to the reaction of breeding Masked Lapwing *V. miles* with which we are familiar in Australia. One brood of three well-grown chicks was found south of La Serena in a field grazed by cattle.

American Oystercatchers *Haematopus palliatus* were seen invariably in pairs on most sandy shores, the largest number being at Pan de Azúcar where at least four pairs appeared to be holding territory.

Blackish Oystercatchers *H. ater* were not as common as American Oystercatchers, but two territorial pairs were seen near Los Choros and scattered pairs and individuals were seen on other rocky coastlines.

A pair of **Snowy Plovers** *Charadrius alexandrinus* appeared to be holding a territory on the beach 5 km north of La Serena as they became agitated when approached by dogs. Other Snowy Plovers were also seen on the beach at La Serena but did not show such behaviour. Near Punto Choros, a pair of Snowy Plovers showed territorial behaviour similar to that of the close-related Red-capped Plover *Ch. ruficapillus* of Australia. Although no nest was found we inferred that the pair had a nest with eggs.

A pair of **Rufous-chested Dotterels** *Ch. modestus* and three **South American Stilts** *Himantopus mexicanus* were also found near Punto Choros though they did not show any sign of breeding. Two of the stilts were adults; the third appeared to be a sub-adult moulting into its first adult plumage.

DISCUSSION

The arrival of Holarctic migrants in the southern hemisphere has seldom been reported. In Roebuck Bay, NW Australia, for example, arrivals have only been recorded on two occasions in over 20 years of regular observation (P. Collins, R. Jessop & C. Hassell, unpubl. information). On the west coast of South America, the patterns of both northern hemisphere migration and intra-continental movements appear to be complex and little known (Vilina *et al.* 1998).

Previous observations in the Coquimbo area have shown similar numbers and species of over-wintering shorebirds to those found in our brief survey (Tabilo *et al.* 1996). However, we saw neither of the Yellowleg species *Tringa melanoleuca*, *T. flavipes* and no Semipalmated Sandpipers *C. pusilla*, which Tabilo *et al.* (1996) reported as occurring in "hundreds". The



reason might be either the continuing degradation of the area through tourism development or the timing of our visit, which may have been too early for these species.

Banding studies have shown that there is a population of Sanderlings that utilise the shores of La Serena/Coquimbo Bay, but patterns of arrival and turnover have only been explored to a limited extent (Tabilo *et al.* 1990). In the La Serena area, Sanderlings show some site fidelity through the southern winter, presumably these are immature birds that are displaced by the adults when they return in the summer. In SE Australia, banding studies have shown that individual Sanderlings range along vast stretches of coast. Flocks are also highly mobile, moving along the beaches between the mouth of the Murray River in South Australia and Shallow Inlet in Victoria, a distance of over 900 km (Gosbell & Minton 2001.). Sanderlings probably behave in much the same way along the coast of Chile (Tabilo *et al.* 1990).

The Sanderlings encountered in Chile did not have any breeding plumage and could not therefore be aged with any degree of certainty. However, it seems likely that they were all adults because none had the brownish heads of juveniles (which, as in most arctic-breeding shorebirds, probably migrate later than the adults). No ages were assigned to birds captured near La Serena by Tabilo *et al.* (1990). Relatively larger numbers of Sanderlings have been counted further south in Tierra del Fuego (Minton *et al.* 1996), and if this species is as mobile as the Australian population, they could easily be the same birds.

Whimbrels appear to pass through the areas we visited because numbers varied between counts, especially in the La Serena area. This, coupled with several flocks observed in apparently unsuitable feeding habitat, would suggest that they were recently arrivals. Whimbrels were rarely seen feeding, even in more suitable feeding sites, such as La Serena. In Tierra del Fuego, counts indicate that Whimbrels are not common that far south (Minton *et al.* 1996). Therefore it would seem likely that some of these birds stay in northern Chile with the majority spending the non-breeding season

along the coast somewhere between La Serena and Tierra del Fuego.

Ruddy Turnstone and Surf-bird appear to be either at or close to the southern extent of their destination on the W coast of South America as they do not appear to have been counted in any numbers further south (e.g. counts of 10 Ruddy Turnstones and a single Surf-bird in Tierra del Fuego (Minton *et al.* 1996)).

Sallaberry *et al.* (1996) mentioned Sanderling, Whimbrel, Ruddy Turnstone and Baird's Sandpiper as important migratory species in Chile and proposed a protected area in the extreme north of Coquimbo Bay. They also outlined proposals for various other ecological and conservation-related activities for students and the general public. This forward-looking programme can only be applauded and our best wishes are with all the shorebird workers of Chile.

REFERENCES

- Gosbell, K. & Minton, C. 2001. The biometrics and moult of Sanderling *Calidris alba* in Australia. *The Stilt* 40: 7–22.
- Minton, C.D.T., Piersma, T., Blanco, D.E., Baker, A.J., Benegas, L.G., de Goej, P., Manriquez, R.E., Peck, M. & Ramirez, M.S. 1996. Wader numbers and the use of high tide roosts at the Hemispheric Reserve "Costa Atlantica de Tierra del Fuego", Argentina – January and February 1995. *Wader Study Group Bull.* 79: 109–114.
- Sallaberry, M., Tabilo, E., Klesse, C. & Abarca, J. 1996. The Chilean Shorebird Network (RECAP). *International Wader Studies* 8: 71–78.
- Tabilo, E., Jorge, R., Riquelme, R., Mondaca, Labra, A.C., Campusano, J., Tabilo, M., Varela, M., Tapia, A. & Sallaberry, M. 1996. *International Wader Studies* 8: 79–84.
- Tabilo, E., Sallaberry, M., & Myers, J.P. 1990. A shorebird banding programme at Coquimbo Bay, Chile: some general observations and comments. *Wader Study Group Bull.* 60: 34–37.
- Vilina, Y.A. & Gonzalez, J.L. 1998. The migration routes of the Tawny-throated Dotterel *Oreopholus ruficollis* in Chile: resolving a complex jigsaw puzzle. *Wader Study Group Bull.* 87: 59–65.
- Wiersma, P. & Piersma, T. 1995. Scoring abdominal profiles to characterize migratory cohorts of shorebirds: an example with Red Knots. *J. Field Ornithol.* 66: 88–98.

