

Migrant shorebirds at Península Valdés, Argentina: Report for the year 2000

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INTRODUCTION AND METHODS

We report observations of migrant shorebirds on the beaches of Península Valdés, Chubut, Argentina (42°30'S, 64°00'W), during their northward stopover in the year 2000. This follows a report for the 1999 season, which covered just one site, Fracasso beach, published in Bala *et al.* (2001).

During February to May, we made weekly counts of shorebirds and recorded those with colour-bands in three areas of Península Valdés: Fracasso beach (10 counts), Caleta Valdés (7 counts) and Punta Norte (3 counts) (Fig. 1). Fracasso beach is a 3.5 km² marine wetland in San José Gulf. It is sandy with fine and medium sediments. Caleta Valdés is on the east coast of Península Valdés and our study site there is the northern part, which is 5 km² at low water. There are many islands covered with salt-tolerant vegetation and the sediments comprise fine sand and mud. Punta Norte is at

the northeast extremity of Península Valdés and is characterised by boulder beaches and rocky shores.

The benthic communities differ between the three sites. The main shorebird foods available at Fracasso beach are polychaetes and clams, at Caleta Valdés, polychaetes, and at Punta Norte, crustaceans and mussels.

RESULTS AND DISCUSSION

Censuses

At Fracasso beach, Red Knots *Calidris canutus rufa* were the dominant species with a cumulative total of 6400 bird/weeks and a peak count of 3,000 in mid-April (Table 1). These figures are very similar to those for 1999 except that the peak count was earlier, at the end of March. However, the data reflect a much reduced population compared to the early



Fig. 1. Classification of Little Ringed Plover nests according to their location.



Table 1. Weekly shorebird counts at Fracasso beach, Península Valdés, Argentina, during March–May 2000.

Week	Date	<i>Calidris canutus</i>	<i>Calidris fuscicollis</i>	<i>Limosa haemastica</i>	<i>Charadrius falklandicus</i>	<i>Pluvianellus socialis</i>
2	Mar 2–3	0	57	0	316	0
3	Mar 8–9	0	7	0	81	0
4	Mar 16–17	10	15	0	22	0
5	Mar 21–24	100	200	0	300	0
6	Mar 28–31	490	200	1	180	0
7	Apr 5–7	2000	80	1	165	0
8	Apr 12–14	3000	6	1	200	0
9	Apr 17–18	800	0	0	106	3
10	Apr 27–28	0	0	1	10	0
11	May 4–5	0	0	0	200	0
Accumulated total bird/weeks		6400	565	4	1580	3

1980s when peak numbers were 5,000–6,000 in early April 1980 and 20,000 in early April 1981 (Brayton 1986, Morrison & Harrington 1992).

White-rumped Sandpipers *C. fuscicollis* at Fracasso peaked at only 200, much less than the 1,280 recorded in 1999 though the timing of the peak in the last ten days of March was similar. Two-banded Plovers *Charadrius falklandicus*, which are largely restricted to Argentina and Chile throughout the year, were recorded during every weekly count in about the same numbers that have been recorded in the past. The peak was towards the end of March, like 1999. As in previous years, a few Hudsonian Godwits *Limosa haemastica* and Magellanic Plovers *Pluvianellus socialis* were recorded though, unexpectedly, there were no Sanderlings *Calidris alba*.

The largest numbers of White-rumped Sandpipers and Two-banded Plovers were recorded at Caleta Valdés, about three times as many as at Fracasso, but virtually no Red Knots (Table 2). Peak numbers of White-rumped Sandpipers occurred in mid-April, rather later than the peak at Fracasso, so it is possible that some birds had moved from one site to the other. Caleta Valdés is by far the most important site on Península Valdés for Two-banded Plovers, with a peak population in March of 1,500. Other species recorded were Sanderling, with a flock of 100 in early March, Red Knot, Hudsonian Godwit, Magellanic Plover and Rufous-chested Dotterel *Charadrius modestus*.

Only Sanderlings were recorded on the rocky beaches of Punta Norte with the same number, 200, being counted on three occasions: week 1 (22 February), week 2 (2–3 March) and week 5 (21–24 March).

Colour-banded Red Knots

As a result of the International Shorebird Banding Project's sustained effort since 1994 to colour-band Red Knots throughout the West Atlantic flyway, a substantial proportion of the population was banded by 2000. We systematically scanned the knot flocks at Fracasso beach in order to establish their origins.

We made 115 separate observations of colour-banded birds, 1.8% of the aggregate total birds scanned (Table 3). A substantial number of these observations probably relate to the same birds being recorded in more than one scan. However, the minimum number of individual banded birds was 49 (based on the aggregate of the maximum number of birds with each band combination recorded in a single scan). Of these, 32 (65%) had been banded when stopping over during northward migration in Delaware Bay, USA, in 1997, 1998 or 1999. Twelve (24%) had been banded at other locations in Argentina, at least five when stopping over at San Antonio Oeste, 200 km north of Península Valdés. Two had been banded during stopover in Brazil (one from Lagoa do Peixe in April 1997) and one had been banded in Canada

Table 2. Weekly shorebird counts at Caleta Valdés, Península Valdés, Argentina, during March–May 2000.

Week	Date	<i>Calidris canutus</i>	<i>Calidris fuscicollis</i>	<i>Calidris alba</i>	<i>Limosa haemastica</i>	<i>Charadrius falklandicus</i>	<i>Pluvianellus socialis</i>	<i>Charadrius modestus</i>
3	Mar 8–9	0	400	100	0	1500	0	0
5	Mar 21–24	0	50	0	0	900	0	0
6	Mar 28–31	0	300	1	0	1400	0	0
8	Apr 12–14	2	500	0	3	600	2	2
9	Apr 17–18	0	50	0	0	600	0	0
10	Apr 27–28	0	50	0	0	600	0	1
11	May 4–5	0	50	4	0	850	0	0
Accumulated total bird/weeks		2	1400	105	3	6450	2	3



Table 3. Observations of colour-banded Red Knots by date and country in which they were banded.

Date	Flock size	Total banded	Country in which banded				
			USA	Argentina	Brazil	Canada	unknown
24 March	103	8	8				
29 March	71	3	3				
29 March	80	3	3				
30 March	417	18	12	4	2		
06 April	60	4	4				
07 April	58	4	4				
13 April	2000	21	13	7		1	
13 April	260	5	3	2			
14 April	39	8	6	1			1
14 April	212	6	5	1			
14 April	56	1	1				
14 April	130	3	2				1
14 April	600	1	1				
14 April	800	4	3	1			
14 April	1200	14	10	2	1		1
18 April	311	12	11	1			
Aggregate sightings of banded birds		115	89	19	3	1	3
Minimum individual banded birds*		49	32	12	2	1	2

* The minimum number of individual banded birds is the aggregate of the maximum number of birds with each band combination recorded in a single scan.

(because it carried a white flag on its left tibia), but we have been unable to trace its exact origin. (Any reader who can supply this information is asked to contact us. The band combination was: white flag left tibia, orange band left tarsus, white band right tarsus.) The origin of two other banded birds could not be determined because they had apparently lost their country-specific flag.

We found a significant negative correlation between flock-size and the proportion of colour-banded birds found in the flock ($p = 0.004$, $r_s = -0.679$, $n = 16$; Fig. 2). There

would seem to be only two possible explanations: either it is a real effect or it is an artefact arising from our scanning method. It could only be a real effect if banded birds are more likely to be found in small flocks. We can think of no reason why this might be the case. On the other hand it would seem possible that, when scanning a large flock, there may be some over-recording of birds without bands. We invariably scan birds that are feeding because their legs are more easily seen when feeding than when roosting. However, this also means that the birds are continually on the move. To

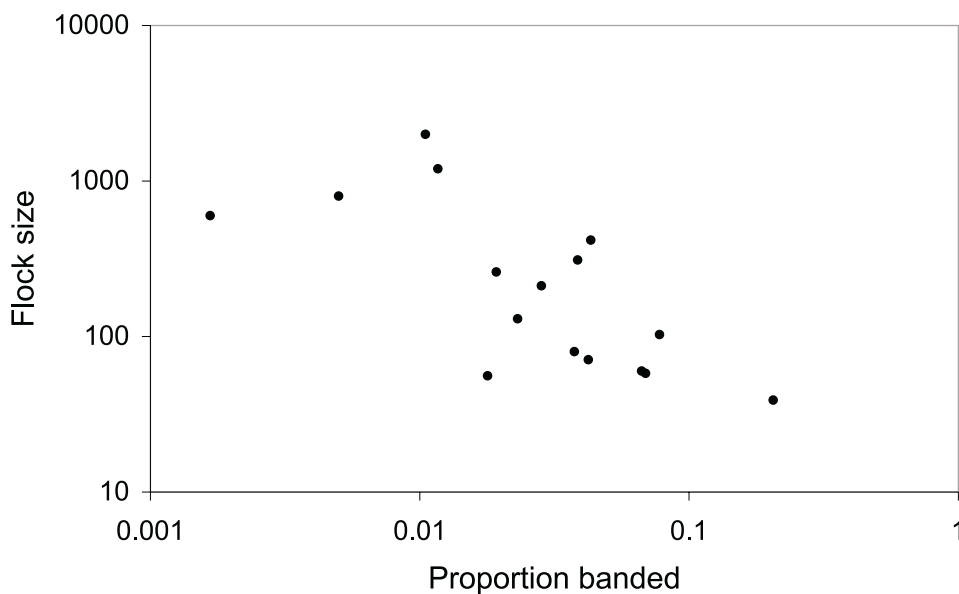


Fig. 2. Classification of Little Ringed Plover nests according to their construction.



reduce double counting, we always scan in only one direction. However, it is easier to avoid double counting a banded bird because it is recognisable. It is more difficult to avoid double counting unbanded birds because they all look similar. It is likely that this problem is greater for large flocks than for small ones because scanning a large flock takes so much longer that proportionately more unbanded birds are double counted. Clearly this is an effect that needs to be investigated and properly understood because it can have a major effect on the results of studies such as ours, especially in relation to efforts to estimate total populations. For example, although the overall average proportion of banded birds was 1.8%, it increases to 5.6% if the four flocks of >500 birds are excluded.

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