## THE SNOWY PLOVER (CHARADRIUS ALEXANDRINUS OCCIDENTALIS) NESTING IN CHILE.

BY D. S. BULLOCK.

Dr. Charles E. Hellmayr in his book<sup>1</sup> on the birds of Chile in speaking of the Snowy Plover on page 376 says,—"We have no definite record of eggs having been taken in Chile, but Mr. Sanborn tells me that this plover was doubtless nesting on the coast of Aconcagua, and the specimen obtained by him in December at Papudo is in worn breeding plumage.

"It probably breeds all along the sandy sea coast of Chile from Tarapaca to Arauco, the most southern locality being Laraquete where A. Lane secured a couple of adults on August 20 and 22 respectively."

It was my privilege to spend four weeks on the "Isla de la Mocha" in the months of November and December, 1932, making a collection of birds and mammals for the American Museum of Natural History. Mocha Island is situated about twenty miles off the coast of Chile and about one hundred miles south of Laraquete, the southernmost limit from which this species was previously reported.

The birds were fairly common all around the coast of the island wherever the sandy beach stretched back some distance from the water. Four nests with three eggs each were found, as well as several nests in which the eggs had not as yet been laid. All were located from thirty to one hundred yards back from the high water mark.

The nests were generally placed in perfectly plain sight. Some were beside a small bunch of beach grass or a piece of drift-wood. Two, however, were not even beside any plant or rubbish. There seemed to be an attempt to make a nest from small bits of shell and in two of the nests were shells almost as large as the eggs.

The birds were apparently not at the height of the nesting season as many pairs did not as yet have any eggs. By watching the birds from a distance with field glasses it was possible to locate the nesting sites where the birds were gathering together small pieces of shell. When there were no eggs in the nests the birds were fairly tame and one could approach to within forty or fifty feet before the birds took flight. Even then they frequently flew only a short distance and soon returned to the place from which they had been flushed. When there were eggs in the nests the birds were very shy and on several occasions were observed to leave the nest when the person approaching was a hundred yards away.

<sup>&</sup>lt;sup>1</sup>The Birds of Chile by Dr. Charles E. Hellmayr. Field Museum of Natural History. Publication No. 308. June 13, 1932.

One nest found gave an opportunity to observe the time between the laying of the eggs. When discovered on a Sunday it contained a single egg. On the following Wednesday the second egg was laid and the third the next Saturday. The nests found were on November 21, 22, and two on the 28th.

The birds seemed to be very evenly distributed all around the island where the conditions for nesting were to their liking. As nearly as I could calculate, in the eight or ten miles of sandy coast that they frequented, there must have been between fifty and sixty pairs.

The finding of these nests confirms the probability suggested by Dr. Hellmayr concerning the nesting of this Plover along the coast of Chile. It is, I believe, the first definite record of a Snowy Plover nest south of the equator. It also establishes a southern record for the species thus extending its range considerably. I have a feeling that the range will probably be extended still farther to the south when we know more concerning the shore birds of Chile and their geographical distribution.

This is the second of our North American species which have been shown to have allied resident forms in South America. The Killdeer was shown by Dr. Chapman<sup>1</sup> to be deplaced in northwestern Peru by a very similar resident type. Hellmayr established the same for the present species. The question naturally arises, how many more species are there in which a similar condition exists?

In going over the literature on the geographical distribution of our North American species of shore-birds I find that there are constant references made to the fact that some non-breeding birds stay during the breeding season "in the southern states," "along the coast of the Atlantic," "in northern South America," "along the Gulf of Mexico," etc. Is it not possible that these are really South American birds that have gone north for the winter months of the southern hemisphere?

It is my expectation that when the shore-birds of southern South America are as well known as are those of North America it will be found that quite a number are allied forms of the North American species.

The following birds are among those mentioned by different authors as not all returning to their North American nesting sites as would be expected of them,—Dowitcher, Black-bellied Plover, Hudsonian Curlew, Baird's Sandpiper, Sanderling and Greater Yellow-legs.

I have been assured by Indians living along the coast of Chile that the Hudsonian Curlew nests quite commonly but I have never been in a position to make a systematic search for them.

Dr. Frank M. Chapman in speaking of a cruise made out from Guayaquil, Ecuador says<sup>2</sup> "This cruise took us into many little-frequented water-ways

<sup>&</sup>lt;sup>1</sup> Auk, 37, p. 106, 1920—Paletillas, n.e. of Payta, Piura, Peru.

<sup>&</sup>lt;sup>2</sup> Autobiography of a Bird-lover by Frank M. Chapman, p. 348.

on Puna Island and the mainland and southward nearly to Peru. It was notable chiefly for the discovery of a large number of our shore-birds which, at that season, mid-July, should, theoretically, have been north of the Arctic Circle nesting. There were Black-bellied Plovers, Hudsonian Curlews and Dowitchers. All were apparently in winter plumage, and the sexual organs of those collected were dormant. Evidently these non-breeding birds had received no inner prompting to return to the region of their birth to reproduce their kind and hence were remaining in their winter quarters during the summer. With these boreal birds were others equally characteristic of the austral regions which, in this subequatorial winter, were at the northern limit of their range."

Why should these North American birds remain in their winter home during the breeding season? Or are they North American birds? I think we shall find that many if not all of these are not North American birds at all but South American birds which later on will be breeding, down toward the end of the continent.

Here is an excellent field not only for the Chilian students of ornithology but also for some of the expeditions of the larger North American Museums to do some original research.

El Vergel, Casilla 2 D., Angol, Chile.