

- CHANDLER, C. R., AND R. S. MULVIHILL. 1988. The use of wing shape indices: an evaluation. *Ornis Scand.* 19:212-216.
- CHANDLER, C. R., AND R. S. MULVIHILL. 1990. Wing-shape variation and differential timing of migration in Dark-eyed Juncos. *Condor* 92:54-61.
- CHAPMAN, F. C. 1940. The post-glacial history of *Zonotrichia capensis*. *Bull. Am. Mus. Nat. Hist.* 77:381-438.
- DORST, J. 1962. The migrations of birds. Houghton Mifflin Co., Boston.
- GASTON, A. J. 1974. Adaptation in the genus *Phylloscopus*. *Ibis* 116:432-450.
- KEAST, A. 1980. Spatial relationships between migratory parulid warblers and their ecological counterparts in the neotropics, p. 109-130. *In* A. Keast and E. S. Morton [eds.], *Migrant birds in the neotropics: ecology, behavior, distribution, and conservation*. Smithsonian Institution, Washington, DC.
- KETTERSON, E. D., AND V. NOLAN, JR. 1976. Geographic variation and its climatic correlates in the sex ratio of eastern-wintering Dark-eyed Juncos (*Junco hyemalis hyemalis*). *Ecology* 57:679:693.
- KETTERSON, E. D., AND V. NOLAN, JR. 1979. Seasonal, annual, and geographic variation in sex ratio of wintering populations of Dark-eyed Juncos (*Junco hyemalis*). *Auk* 96:532-536.
- KETTERSON, E. D., AND V. NOLAN, JR. 1983. The evolution of differential bird migration, p. 357-402. *In* R. F. Johnston [ed.], *Current ornithology*. Vol. 1. Plenum Press, New York.
- KIPP, F. A. 1942. Über Flügelbau und Wanderzug der Vögel. *Biol. Zentralbl.* 62:289-299.
- KIPP, F. A. 1958. Zur Geschichte des Vogelzuges auf der Grundlage der Flügelanpassungen. *Vogelwarte* 19:233-242.
- KOKSHAYSKY, N. V. 1973. Functional aspects of some details of bird wing configuration. *Syst. Zool.* 22: 442-450.
- MILLER, A. H. 1941. Speciation in the avian genus *Junco*. *Univ. Calif. Publ. Zool.* 44:173-434.
- MULVIHILL, R. S., AND C. R. CHANDLER. 1990. The relationship between wing shape and differential migration in the Dark-eyed Junco. *Auk* 107:490-499.
- SAS INSTITUTE, INC. 1988. SAS/STAT user's guide. SAS Institute, Inc., Cary, NC.
- STEGMANN, B. 1962. Die verkümmerte distale Handschwinge des Vogelflügels. *J. Ornithol.* 103: 50-85.
- YUNICK, R. P. 1981. Age determination of winter and spring Dark-eyed Juncos. *N. Am. Bird Bander* 6:97.

The Condor 93:175-176

© The Cooper Ornithological Society 1991

NOTEWORTHY BIRD RECORDS FROM SOUTHERNMOST CHILE¹

GEORGE E. WALLACE

Box 15, Department of Zoology, University of Guelph, Guelph, Ontario N1G 2W1, Canada

Key words: Avifauna; distribution, Chile, Islas Diego Ramirez.

The following observations were made during trips to southern Chile 20-24 February 1986, and 22-23 February, and 5-12 March 1989. New distributional and breeding information was gathered for seven bird species I observed in the Chilean provinces of Ultima Esperanza, Magallanes, Tierra del Fuego, and Antartica. Common and scientific names follow those of Meyer de Schauensee (1982).

Eudyptes chrysolophus (Macaroni Penguin). One adult was seen with five Rockhopper Penguins (*E. chrysolophus*) on Isla Terhalten (55°26'S, 67°04'W), 3 March 1989. In Chile, the Macaroni Penguin is a confirmed breeder at Cabo Pilar, Isla Desolacion (52°44'S, 74°41'W), Islas Diego Ramirez (56°30'S, 68°43'W); a probable breeder on Isla Noir (54°30'S, 73°05'W) and Isla Deceit (55°53'S, 67°08'W) (Araya and Millie 1986).

Macaroni Penguins have been observed previously on Isla Terhalten in large numbers, but their occurrence has not been reported in the literature. This sighting is the first documented record for Isla Terhalten. The island should be monitored for evidence of breeding.

Netta peposaca (Rosy-billed Pochard). I observed one male approximately 9 km south of Porvenir (53°22'S, 70°22'W), 21 February 1986. Araya and Millie (1986) describe the range as including Magallanes province, but this is the first documented record for the species in Tierra del Fuego. Keith (1970) recorded pochards slightly farther south in Argentine Tierra del Fuego and Scott (1954, as cited by Humphrey et al. 1970) described the pochard as "reported" from Tierra del Fuego. The Rosy-billed Pochard may have a wider distribution than previously believed.

Phalacrocorax australis (Striated Caracara). I observed 15 Striated Caracaras, apparently mostly second and third year birds (Brown and Amadon 1968), on Isla Gonzalo, Islas Diego Ramirez, 23 February 1989. The birds were tame and tolerated approach to within a few meters. This species is known to scavenge in

¹ Received 13 April 1990. Final acceptance 30 August 1990.

seabird colonies (Reynolds 1935, Johnson 1965, Humphrey et al. 1970) and likely does so on Isla Gonzalo. I found the carcasses of Blue Petrels (*Halobena caerulea*) that had probably been killed by caracaras. They also congregated in the vicinity of the weather station where they may have scavenged for refuse. The Striated Caracara occurs on islands in southern Magallanes and south of the Beagle Channel in Chile, eastern Tierra del Fuego and Isla de los Estados (54°45'S, 64°16'W) in Argentina, and the Falkland Islands (Araya and Millie 1986, Meyer de Schauensee 1966). It occurs on Isla Diego Ramirez according to Venegas (1986). Because this reference is obscure and not readily accessible to North American ornithologists, I report it here. The Striated Caracara appears well established on Isla Gonzalo.

Polyborus plancus (Crested Caracara). One was seen 23 February 1989, on Isla Gonzalo. It was being mobbed by two Striated Caracaras. The Crested Caracara ranges south to Cape Horn and Isla de los Estados (Araya and Millie 1986, Meyer de Schauensee 1966). This is the southernmost documented record of the species.

Aphrastura spinicauda (Thorn-tailed Rayadito). I observed four rayaditos on Isla Gonzalo in dense tussock grass, 23 February 1989. The rayadito is a forest dweller throughout most of its range (Johnson 1967, Humphrey et al. 1970, Meyer de Schauensee 1982), but has been reported in tussock grass on Isla Barnevelt (55°50'S, 66°48'W) (Reynolds 1935). This is the first record for the species at Isla Diego Ramirez where it is probably a permanent resident.

Agelaius thilius (Yellow-winged Blackbird). I observed two males and three females in reedy vegetation on the border of a marshy pothole in Parque Nacional Torres del Paine, Ultima Esperanza province, 10 March 1989. Despite the late date, the males were singing. The breeding range of the Yellow-winged Blackbird in Chile is from Atacama south to Valdivia, the vicinity of the Argentine border near Chile Chico, Aysén province, and possibly Parque Nacional Torres del Paine (Araya and Millie 1986). It occasionally wanders to northern Magallanes (Venegas 1986). Given the numbers observed, the habitat, and behavior of the males, I believe that the birds are breeding in Torres del Paine. This would constitute a southern expansion of the breeding distribution of approximately 650 km.

Passer domesticus (House Sparrow). I saw 40 House Sparrows in Puerto Williams, Isla Navarino (52°32'S, 72°06'W), 22 February 1989. The House Sparrow has been reported from Tierra del Fuego (Keith 1970, Araya and Millie 1986), and its presence in Puerto Wil-

liams means that the species has now colonized the southernmost town in the world.

As the above sightings indicate, we continue to learn about the distribution of birds in far southern South America. Certainly the most interesting of these sightings are from Isla Diego Ramirez which supports the world's southernmost landbird community consisting of three species: Striated Caracara, Blackish Cinclodes (*Cinclodes antarcticus*), and Thorn-tailed Rayadito.

I would like to thank the Point Reyes Bird Observatory, the United States Antarctic Program, Society Expeditions, Inc., and Sobek Expeditions, Inc. for making my visits to southern Chile possible. Frank Todd was a fountain of information on the 1989 excursion and accompanied me to Isla Terhalten and Isla Diego Ramirez. Sandy Middleton reviewed the manuscript. Bev Collier provided many helpful comments on the manuscript and encouraged me to publish my sightings.

LITERATURE CITED

- ARAYA, B., AND G. MILLIE. 1986. Guía de campo de las aves de Chile. Editorial Universitaria, Santiago de Chile.
- BROWN, L., AND D. AMADON. 1968. Eagles, hawks and falcons of the world. Vol. 2. McGraw-Hill, New York.
- HUMPHREY, P. S., D. BRIDGE, P. W. REYNOLDS, AND R. T. PETERSON. 1970. Birds of Isla Grande (Tierra del Fuego). Preliminary Smithsonian Manual. Smithsonian Inst., Washington, DC.
- JOHNSON, A. W. 1965. The birds of Chile. Vol. 1. Platt Estab. Graficos, S.A., Buenos Aires.
- JOHNSON, A. W. 1967. The birds of Chile. Vol. 2. Platt Estab. Graficos, S.A., Buenos Aires.
- KEITH, A. R. 1970. Bird observations from Tierra del Fuego. Condor 72:361-363.
- MEYER DE SCHAUENSEE, R. 1966. The species of birds of South America and their distribution. Acad. Nat. Sci. Philadelphia. Livingston Publ., Narberth, PA.
- MEYER DE SCHAUENSEE, R. 1982. A guide to the birds of South America. Acad. Nat. Sci. Philadelphia. Intercollegiate Press, Philadelphia.
- REYNOLDS, P. W. 1935. Notes on the birds of Cape Horn. Ibis (series 13) 2:65-101.
- VENEGAS, C. 1986. Aves de Patagonia y Tierra del Fuego Chileno-Argentina. Universidad de Magallanes, Punta Arenas.