

## NOTES ON GEOGRAPHIC DISTRIBUTION

### Aves, Charadriidae, *Charadrius modestus*: Geographic distribution and a recent record to state of São Paulo, Brazil

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Rufous-chested Dotterel *Charadrius modestus* is a small to medium-sized plover (19 – 22 cm, 79 – 94 g) common in grasslands, estuaries, peninsulas and beaches (Carstairs 1989; Sick 1997). It has no recognized subspecies and its distribution is estimated in 410,000 km<sup>2</sup>, including the territories of Falkland Island, South Georgia and South Sandwich Islands, Argentina, Uruguay, Brazil, Chile and Peru (Delany and Scott 2002; BirdLife International 2004; Infonatura 2007). The species is regarded a rare austral migrant in the south coast of Peru (north of Lima) and southeast coast of Brazil (São Paulo and Rio de Janeiro) where it

occasionally occurs (Sick 1997; Clements and Shany 2001).

Adult breeding plumage is distinguished by brown cap almost encircled by white supercilious. Face, cheeks and throat are clean ash-grey; lower neck and breast bright rufous, bordered below by a fairly broad black band. Upperparts are brown/grey. The adult non-breeding plumage, rufous, black and grey is lost. The forehead is pale buff, speckled darker and the supercilious is cream. Breast is predominantly grey-brown and mottled paler (Hayman et al. 1986; Figure 1).



**Figure 1.** Non-breeding individual of Rufous-chested Dotterel photographed at Rio Una Estuary located in Juréia-Itatins Ecological Reserve, south coast of state of São Paulo. Photo by C. Cestari.

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The population size of Rufous-chested Dotterel is estimated about 130,000 to 1,100,000 individuals (Delany and Scott 2002) and emigrates partially during March and April from the main breeding regions in southern South America (Falkland Islands and southern Argentina) northward to the Pacific (Chile and Peru) and Atlantic coasts, extending its distribution to northern Argentina, Uruguay and southern Brazil during winter months (Pinto 1978; Johnsgard 1981; Vooren and Brusque 1999). Notwithstanding, there are few studies that mention the temporal and spatial distribution of the Rufous-chested Dotterel along the Atlantic coast (e.g. Isaach and Martinez 2003). In Brazil, the species is a common visitor between April and July at the state of Rio Grande do Sul (Belton 1984; Harrington et al. 1986; Vooren and Chiaradia 1990), but occasionally moves to São Paulo and Rio de Janeiro states between May and June. The latter is considered the northern limit of its geographic distribution in the Brazilian territory (Sick 1997).

In the morning of 17 May 2008, I registered a non-breeding individual of Rufous-chested Dotterel feeding on insect larvae on the Una do Prelado estuary located at Juréia-Itatins Ecological Reserve, south coast of state of São Paulo (24°26'34,2" S, 47°04'35,5" W; Figure 1). It foraged probing its bill on moist sand near two individuals of Collared Plover (*Charadrius collaris*, Charadriidae). According to Myers and Myers (1979) wintering birds often defend foraging territories, but I did not observe this behavior in the estuary. Furthermore, the individual allowed a short distance approach and did not fly away.

The scarcity of records of Rufous-chested Dotterel in São Paulo State are concentrated between Cananéia (25°01'15" S, 47°56'00" W) and Santos (23°56'50" S; 46°19'33" W). One individual was collected in July 1956 at São Vicente (MZUSP 70641). Another was collected in Iguape (May 1963; MZUSP no number) and Cananéia (April 1991; MZUSP 70641). Furthermore, Willis and

Oniki (2003) observed this species mainly during June and July in a region between Iguape and Ilha Comprida in 1983, 1984 and 1989. The scarcity of the species on the coast of São Paulo State was pointed out in a weekly monitoring study of plovers carried out at Ilha Comprida between 1999 and 2001 (Barbieri and Mendonça 2005). In this study, the authors registered only one individual in August 1999. Olmos and Silva-e-Silva (2001) recorded only five individuals in July 1996 during a study conducted from March 1994 to December 2001 in a mangrove area between Santos and Cubatão (Cascalho river in Cubatão, Silva-e-Silva, pers. comm.), about 180 km northward of Ilha Comprida.

The pattern of occasional occurrence of the Rufous-chested Dotterel in state of São Paulo is not clear but its rarity could be related to the north limit of geographical distribution in the Atlantic coast, with decreasing numbers in northern latitudes. Birds on the northern wintering regions are usually observed alone (Vooren and Brusque 1999) what does not occur in the southern distribution of the species. According to Johnsgard (1981), in Falkland Islands and southern Argentina there are flocks up to a hundred or more individuals and the pair-formation probably occurs during the winter.

Monitoring studies conducted in the coastal region of Argentina show a decrease on the population of Rufous-chested Dotterel in the last three decades (Isaach and Martinez 2003). Although, punctual studies and observations in other countries located along the Atlantic coast, such as in Uruguay (Alfaro and Clara 2007), and in southern Brazil (specifically in Rio Grande do Sul; Belton 1984) suggest that the species is a common visitor.

Anyway, it is clear that the number of studies referring to the spatial distribution and abundance of Rufous-chested Dotterel are still scarce and more long-term monitoring studies are needed to evaluate its real status on the Atlantic Ocean coast.

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