

## Western Hemisphere Flyways

### New data on breeding Wilson's Plovers *Charadrius wilsonia* in Brazil

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Wilson's Plover *Charadrius wilsonia* is a well-known northern hemisphere migrant to the Brazilian coast. Meyer de Schauensee (1970) was the first to suggest that the species might also breed in northeastern Brazil. Breeding status was affirmed for the species in northeastern Brazil by AOU (1983), but no details on the basis for this were presented. Sick (1985) later considered Wilson's Plover to be exclusively a northern hemisphere migrant to Brazil, being found from Pernambuco to Bahia from September to May. Here we report a new breeding record for Maranhão state and review information on reproduction already reported at Brazilian ornithological congresses for Maranhão, the mouth of the Rio São Francisco in Alagoas and northeastern Bahia.

#### CONFIRMED NESTING SITES

Schulz *et al.* (1992) reported Wilson's Plover nests at the mouth of the Rio São Francisco in Alagoas (10°30'S, 36°24'W) in September 1991 and at the Ilha de Maiau, Maranhão (1°18'S, 44°57'W) in May 1992. In both cases, the nests were predated, so successful breeding was not confirmed.

Our records are from the Ilha do Cajual (2°28'S, 44°30'W) in September 1991, and the Ilha de Curupu, Municipality of Paço do Lumiar, Maranhão (2°24'S, 44°04'W) in May and June 1992. In the first case the nests were predated, but in the second reproduction was successful. The Ilha de Curupu is formed mostly of extensive sandy beaches, with flooded grasslands, *restinga* vegetation and fresh

water lagoons in the island's interior and mangroves between Curupu and neighboring Ilha de São Luís.

The single Wilson's Plover nest we found was a shallow depression on a sand bank; when the clutch was completed it contained three eggs. The eggs were laid at intervals of two days, and incubation apparently was initiated only once the clutch was complete. The eggs had a light gray background and dark gray spotting throughout but concentrated at the broader end.

Incubation took from 24 to 26 days. When the eggs were examined on 2 June 1992, each weighed 13 g and they had the following dimensions (in mm): 38.1 x 26.4; 38.1 x 26.0; and 35.8 x 26.8. These data on laying pattern and eggs are similar to those reported for North American *C. w. wilsonia* (Bent 1929).

On 15 June an unhatched chick was vocalizing within the shell at 1235 hr. On 16 June at 0950 hr two chicks had hatched. The third egg hatched the same day, and in this last case the time from the first bit of shell breaking and to hatching took approximately 195 minutes. Measurements of culmen length, tarsus length and mass for the three recently-hatched chicks are given in Table 1.

All three chicks were banded with Brazilian CEMAVE (Centro de Pesquisas Para a Conservação das Aves Silvestres-IBAMA) birdbands.

More recently Lima *et al.* (1996) reported nesting Wilson's Plovers at Mangue Seco, Bahia (12°40'S, 38°10'W). They state that nesting begins in mid-April and that clutches are of two to three eggs that weigh on average 14 g and

measure 38 x 27 mm. Since they report that the egg shell has a mass of 0.96 g, the equivalent of 6.9% of body weight, one can infer that nesting in this case was also successful.

Table 1. Measurements of culmen length, tarsus length and mass for three recently-hatched chicks Wilson's Plovers chicks.

Culmen length (mm)	Tarsus length (mm)	Mass (g)
9.5	21.4	17
8.4	21.4	14
8.3	19.7	10

## BREEDING STATUS AND THREATS TO NESTING

Wilson's Plover can be considered to be a rare breeding bird in Brazil. In the cases we followed, we found only single nests and this species was outnumbered by breeding Collared Plovers *Charadrius collaris* at the same sites by a ratio of at least four to one. Schulz *et al.* (1992) attributed nest failure to predation by an unidentified crab species and Yellow-headed Caracaras *Milvago chimachima*, and trampling by roaming herds of domestic cattle. At the Ilha de Curupu, local human inhabitants gather the eggs to eat. There, in addition to cattle, introduced populations of Greater Rhea *Rhea americana* frequent the beaches and may trample both eggs and recently hatched chicks.

We know of no specimens to confirm the classification of Brazil's breeding Wilson's Plovers, but it is probable that they are *Charadrius wilsonia cinnamominus*, the same form that breeds from Colombia to French Guiana, including Aruba and Trinidad (McNeil 1968).

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