NICTEMERAL CHANGES IN A TROPICAL SHALLOW RESERVOIR 703

THE OCCURRENCE OF *Phoenicopterus chilensis* MOLINA (AVES, PHOENICOPTERIDAE) IN SÃO PAULO STATE RESERVOIRS

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(With 1 figure)

The chilean flamingo, *Phoenicopterus chilensis* Molina, 1782 is a species restricted to South America, with a meridional distribution, occurring from central Peru southwards, through the Andes to Tierra del Fuego and extending eastwards to South Brazil and Uruguay (Del Hoyo, 1992). It is a winter visitor in Brazil, being observed in Rio Grande do Sul, from April to September, appearing at Lagoa do Peixe, a coastal lagoon and adjacent beaches, in large flocks (Sick, 2001). In an exceptional occurrence, it has also been recorded in Santa Catarina (Sick et al., 1980). According to those authors, the closest permanent colony is located at Santa Fé, Argentina. At present, according to Bucher et al. (2000), Mar Chiquita Lake, in Cordoba, Argentina, is among the most important nesting areas for *P. chilensis*.

Flamingoes live preferentially in large, shallow, brackish or salt water lagoons, being abundant in places where fish competition for benthic invertebrates or plankton is absent or of low intensity (Sick, 2001). They feed mainly on crustaceans (copepods, cladocerans, ostracods and others), aquatic insects and snails (Del Hoyo, 1992). According to Belton (1994), the bodies of water used by *P. chilensis* in Rio Grande do Sul are freshwater or brackish habitats, with sand and mud bottoms.

During an inventory of water birds at Tietê River Reservoirs, the occurrence of one individual of *P. chilensis* was observed at Bariri Reservoir on 8 June 2001, at the entrance of the Bauru River (22°14’53”S, 48°48’2.1”W). The specimen was observed feeding in the shallow littoral zone (0.30 m deep). Other birds were also present, some in large numbers, among them, 8 *Bubulcus ibis* (Ardeidae), 1 *Myceria americana* (Ciconiidae), 48 *Gallinula chloropus* (Rallidae), 90 *Himantopus himantopus* (Recurvirostridae) and 11 *Tachycineta leucorhoa* (Hirundinidae). Another specimen was observed at Salto Grande Reservoir (22°44’S and 47°20’W) on September 27 in similar littoral areas. Previous sightings of flamingoes at this reservoir occurred a few months earlier by C. Lopes-Ferreira (personal communication). Fig. 1 shows the known species geographic distribution according to Del Hoyo (1992) and also the localities where the sightings occurred. *P. chilensis* is not common at water bodies in São Paulo State.

Both Bariri and Salto Grande Reservoirs belong to the Tietê River hydrographic basin and are very eutrophic. Pamplin (1999) found high densities of benthic invertebrates in Salto Grande Reservoir, with dominance of Oligochaeta which represents more than 50% of the total numerical density.

The sighting of the flamingo in Tietê reservoirs may represent an extension of its geographic range to exploit new feeding localities, although by few individuals, probably separated from the flock. According to Margalef (1983) man-made lakes can provide new feeding habitats for aquatic birds, even inducing changes in migratory paths of some species. In Spain, Carbonell & Muñoz-Cobo (1976) and Garcia et al. (1980) observed that the creation of a large number of reservoirs in the interior of the country led to the restructuring of aquatic bird migratory routes. Birds that previously migrated close to the coast now go through the country, particularly the anatids. A similar process may be occurring for the flamingo. It seems therefore relevant to report the appearance of *P. chilensis* in São Paulo State Reservoirs.
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Fig. 1 — South American main hydrographic basins and geographic distribution of the *Phoenicopterus chilensis*, the chilean flamingo (according to Del Hoyo, 1992), and the new sighting localities in São Paulo State (Bariri and Salto Grande reservois) as indicated by stars.