



Scientific Note

First occurrence of *Phoenicopterus chilensis* (Molina, 1782) in the southern coast of São Paulo State

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Abstract. This note records the first known occurrence of *Phoenicopterus chilensis* (Chilean flamingo) on the Cananéia and Ilha Comprida estuary, São Paulo State, Brazil. The register was based on observations made and photographs taken in November and December 2011, on the Cananeia and Ilha Comprida estuary.

Key words: Chilean flamingo, *Phoenicopterus chilensis*, Cananéia, Ilha Comprida, estuary, bird

Resumo. Primeira ocorrência do Flamingo (*Phoenicopterus chilensis*, Molina, 1782) no litoral sul do estado de São Paulo. Esta nota documenta o primeiro registro de *Phoenicopterus chilensis* para o estuário de Cananeia e Ilha Comprida, no litoral sul de São Paulo, Brasil. Este registro foi baseado em observação direta e registro fotográfico no período de novembro a dezembro de 2011, no estuário de Cananeia e Ilha Comprida.

Palavras chave: flamingo chileno, *Phoenicopterus chilensis*, Cananeia, Ilha Comprida, estuário, aves

According to Del Hoyo (1992), *P. chilensis* is a migratory bird capable of flying approximately 500 to 600 km daily in search for food and nesting places. The species lives in large colonies which vary in number from 3 to 6000 couples. When the flamingoes migrate, generally at night, they fly at an average of 50 to 60 km/h. Reproduction occur in groups, the female lays only one egg at a time that hatches after an average of 29 days. The birds reach sexual maturity at between 3 and 6 years and have long lives whether in wild (33 years) or captivity (44 years) (Durrell Wildlife Conservation Trust 2006).

The flamingoes inhabit alkaline lakes and salt lagoons, generally with little vegetation, along the Andes, up to an altitude of 4.500m (Del Hoyo 1992). Some of them move to coastal areas in the winter, where they can use the estuarine lagoons, mangrove swamps, tidal flats and sandy consoles of

the coastal zone (Sick 1997). In Rio Grande do Sul, according to Belton (1994), the water bodies used by *P. chilensis* are sweet or salt water with a sand or mud substrate. In fish-bearing lakes, the occurrence of *P. chilensis* is rare or absent; the bird is found in large numbers where they are no fish to compete for food. They are filterers which live close to the waters from which they draw their sustenance, composed mainly of aquatic invertebrates such as: crustaceans (copepodes, cladoceras, ostracods), aquatic insects and molluscs (Del Hoyo 1992 *apud* Branco 2001). Carotenoids are to be found in the majority of these invertebrates and it is this that gives the flamingoes plumage the pink coloring (Sick 1997). In the absence of this substance the feathers become white.

P. chilensis is a native species from Chile, though it may equally be found in Peru, Bolivia,

Uruguay, Paraguay, Argentina, in southern Brazil and sporadically in the Falklands (Del Hoyo 1992). It is a winter visitor of Brazil (April to September) at the Lagoa do Peixe (RS) and nearby beaches, and exceptionally in Santa. Catarina (Sick 1997).

During the bird census on the Baixio do Arrozal on the Cananeia estuary, on the southern coast of São Paulo State, three individuals of *P.*

chilensis (Figure 1) were observed feeding in the coastal zone (with an average salinity of $27 (\pm 8)$ and temperature of $24^{\circ}\text{C} (\pm 3)$) during the period from 26/11/2011 to 12/12/2011 (Figure 1 and 2). These same three individuals were also seen in Trincheira and the Balneário Jardim Tropical, in the Ilha Comprida municipality and in Retiro, in the Cananeia municipality (Figure 3).



Figure 1. *Phoenicopterus chilensis* foraging in the Cananeia-Ilha Comprida estuary, southern coast of the State of São Paulo (Photo, Mario Nunes).



Figure 2. *Phoenicopterus chilensis* in the Cananeia-Ilha Comprida estuary, southern coast of the State of São Paulo (Photo, Mario Nunes).

Notes have been published on occurrences of *P. chilensis* in São Paulo State by Willis & Oniki (1985); Bragion *et al.* (2010); Ishikawa-Ferreira *et al.* (1999); Branco *et al.* (2001) and Medolago & Ubaid (2011). However, all these observations were of occurrences in the interior of the State and none referred to the coastal area. They relate, further, to

the register, in each case, of a single individual. This is, therefore, the first recorded for the coastal zone of the State of São Paulo. Beyond that, the studies quoted above mention the species occurrence in Brazil between April and September, whereas this present observation refers to November and December, in the reproductive season.

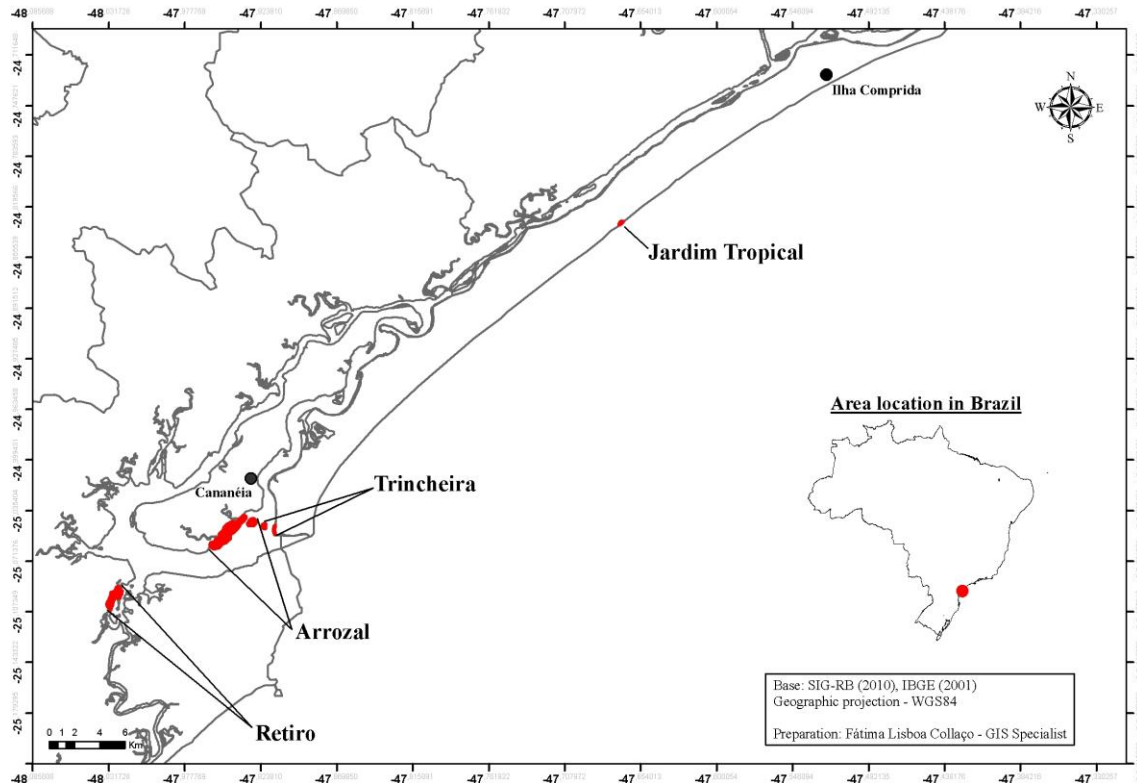


Figure 3. Areas in which *Phoenicopterus chilensis* was observed on the southern coast of São Paulo State.

Previous studies on the birds of the Ilha Comprida and Cananéia estuary, such as those of Barbieri (2007), Barbieri & Paes (2008), Hvenegaard & Barbieri (2010), Numao & Barbieri (2011) make no mention of the species in the region. Thus this register is of fundamental importance for the bird fauna of the southern coast of São Paulo, one of the five most-threatened “hotspots” of the world (Meyers *et al.* 1999).

The International Union for the Conservation of Nature (IUCN, 2001) classifies *P. chilensis*, in 2013, as “near threatened” species in red list of threatened species. This means that the species does not face any imminent threat of extinction, as a large part of its habitat is still intact. However, although the species has the advantage of possessing a large population, it is probably, in terms of general numbers, in decline, according to data of

the BirdLife International (2011).

Destruction or degradation of habitats by anthropic action, such as the occupation of flooded areas for agriculture, draining for irrigation, pollution caused by agrochemicals, building and illegal land-reclamation and haphazard tourism is a serious threat to the species. As mentioned above *P. chilensis* is found in lakes without fish, thus the fish introduction into some lakes may also affect the distribution of the species, seeing that there already exists competition for food among them.

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