



RANGE EXPANSION OF BLACK-CROWNED MONJITA *Xolmis coronatus* (AVES: TYRANNIDAE) IN SOUTH BRAZIL: RECORDS IN AN IMPORTANT BIRD AREA

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Abstract: The Black-crowned Monjita *Xolmis coronatus* (Passeriformes, Tyrannidae) is a bird species that lives alone or in pairs, inhabits open areas and feeds mainly on insects. This species nests in the Patagonian region at central Argentina and, especially during the austral winter, migrates northward reaching Bolivia, Paraguay, Argentina, Uruguay, and southern Brazil. In Brazil, in the Rio Grande do Sul state (RS), it is considered a sporadic visitor reported in the West and Northwest, between April and December. Here we present the occurrence of *X. coronatus* in three consecutive winters (2014-2016) on the border between the Environmental Protection Area of Banhado Grande and the Banhado dos Pachecos Wildlife Refuge, classified as an Important Bird Area in the municipality of Viamão, RS. Ours represent the first record of this bird occurring in this region interannually, indicating a geographic range expansion of the species of about 380 km toward the East of the state, highlighting the importance of Protected Areas for wildlife maintenance.

Keywords: distribution; Environmental Protection Area of Banhado Grande; migratory bird; species occurrence; Wildlife Refuge Banhado dos Pachecos.

The Black-crowned Monjita *Xolmis coronatus* (Passeriformes, Tyrannidae) has a shy behavior, lives alone or in pairs, inhabits open areas with sparse trees, both native and exotic, where it lands on fences and on small trees in open grasslands, sometimes landing on the soil for foraging, feeding mainly on insects (Belton 1994, Olmos 2011, Azpiroz 2012). This bird is considered a sporadic visitor from the Patagonian region, central Argentina, where it nests. During the austral winter, outside the breeding season, the species migrates northward

reaching Bolivia, Paraguay, Argentina, Uruguay and southern Brazil (western Rio Grande do Sul state - RS) (Sick 1997, Sigrist 2013, Somenzari *et al.* 2018). In the Rio Grande do Sul state, it has been reported in sparse locations in the west and northwest, between May and August (Belton 1994, Bencke *et al.* 2010). Efe *et al.* (2007) observed the occurrence of *X. coronatus* from April to September, which may characterize an extension of the permanence period in the state. In May 2012, one individual was recorded in the Cardoso island, municipality of

Cananéia, southern coast of São Paulo state (Lima 2012) (Figure 1). The individual was reported under heavy rain, during a cold front, which suggests that this species reached the state of São Paulo during this weather event (Lima 2012). The species is described as 'fairly common'; the global population size has not been quantified, but this population is suspected to be stable in the absence of evidence for any declines or substantial threats (Stotz *et al.* 1996, BirdLife International 2016).

Here we report the expansion of the Black-crowned Monjita *X. coronatus* occurrence area in the eastern region of the Rio Grande do Sul state, along the coastal plain in the municipality of Viamão, through the first occurrence records of the species in that region. The records were made in the Environmental Protection Area of Banhado Grande (EPABG), on the border with the Banhado dos Pachecos Wildlife Refuge (WRBP) (30°05'45.43" S, 50°51'46.38" W), classified internationally as

an Important Bird Area (IBA) (Bencke *et al.* 2006) (Figure 1).

Due to a research about the Saffron-Cowled Blackbird, *Xanthopsar flavus* (Passeriformes, Icteridae) conducted in the study area, field samplings occurred once a month, totaling approximately 530 h of field observations during 84 days (between September 2014 and June 2016), across 22 months. Observations were conducted in the morning and in the afternoon (Mohr *et al.* 2017). The study area lies within an ecotone zone between the Atlantic Rain Forest and Pampas biome. Sandbank vegetation, pioneer shrub-tree woods, swampy areas with Cyperaceae and high grass, flooded fields, dry marshes, pastures and areas with anthropic activities (mainly livestock and rice fields) occur within the limits of WRBP and EPABG (Accordi & Hartz 2006).

We had four separately contacts with the *X. coronatus*, separately, from 2014 to 2016, only

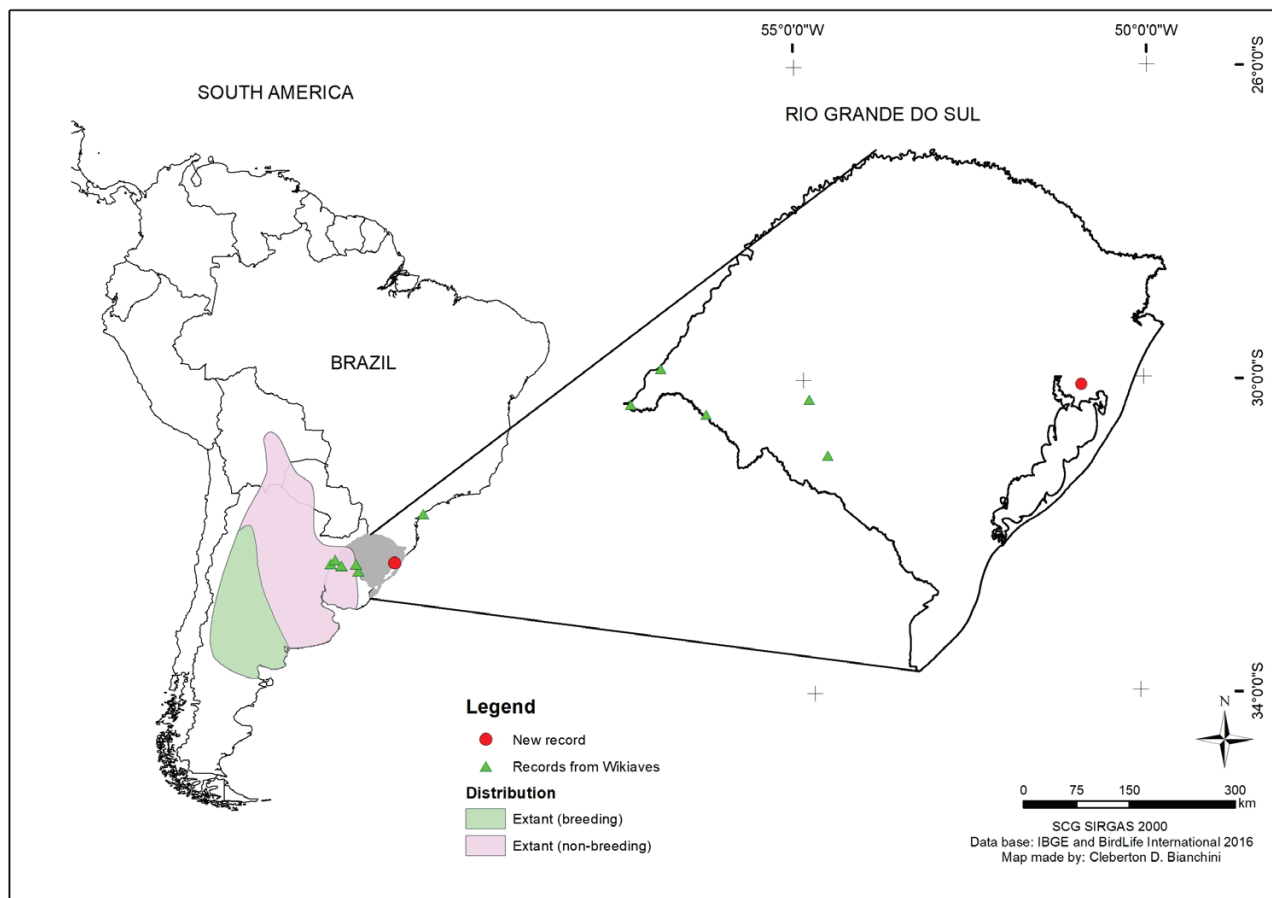


Figure 1. Map with records of Black-crowned Monjita *Xolmis coronatus* (Passeriformes, Tyrannidae) in São Paulo and Rio Grande do Sul states, Brazil; breeding areas in Patagonian region, central Argentina, and non-breeding areas in southern Brazil, Uruguay, Argentina, Paraguay and Bolivia. Source: BirdLife International (2016) and Wikiaves (2019).

during the austral winter. All records were made in the same place, which is characterized by a grassland area, under pressure of grazing by cattle, with some sparse specimens of *Eryngium* sp. (Apiales, Apiaceae) and Maricá trees *Mimosa bimucronata* (Fabales, Fabaceae). The first record of an individual of *X. coronatus* in the studied region was made in 07/29/2014, during afternoon, about 14:00 h. The individual was observed landed and foraging, in an open field area within the EPABG, which borders the WRBP, *i.e.* in the damping zone of this Protected Area. During winter in 2014, the study site was visited only in that day, when it was also recorded a White Monjita *X. irupero* (Passeriformes, Tyrannidae).

On 07/18/2015 we recorded one individual at 15:00 h, observed for about one hour in the site (Figure 2), until it disappeared from the field of vision. In the same place, we reported one *X. irupero* apart, and four Black-and-white Monjitas *X. dominicanus* (Passeriformes,

Tyrannidae), along with 27 *X. flavus* foraging all together, although *X. coronatus* was not observed interacting with these species. In that day, we conducted ten hours of observation in the study area, and the *X. coronatus* individual was not observed again. On 07/19/2015 during five hours of observation, *X. coronatus* was not seen again.

On 06/18/2016 we recorded a *X. coronatus* in the same place and hour of the day, around 15:00 h, which was observed for half an hour until it flew and disappeared of the field of vision (Figures 3 and 4). On the same day we performed eight hours of bird watching in the region and no other *X. coronatus* was recorded. In the same site, four *X. dominicanus* and two *X. irupero* were also observed, although no interaction between these species was reported. During the following day (06/19/2016), four hours of observation was performed, and one *X. coronatus* individual was observed, from 14:30 to 15:30 h. We also observed



Figure 2. The Black-crowned Monjita *Xolmis coronatus* (Passeriformes, Tyrannidae) recorded on 07/18/2015 on a perch (*Eryngium* sp.) in the Environmental Protection Area of Banhado Grande on the border with the Banhado dos Pachecos Wildlife Refuge, municipality of Viamão, Rio Grande do Sul state, Brazil. Photo: Alexandro Rodrigo Mohr.



Figure 3. The Black-crowned Monjita *Xolmis coronatus* (Passeriformes, Tyrannidae) recorded on 06/18/2016 in a grassland area in the Environmental Protection Area of Banhado Grande on the border with the Banhado dos Pachecos Wildlife Refuge, municipality of Viamão, Rio Grande do Sul state, Brazil. Photo: Alexsandro Rodrigo Mohr.



Figure 4. The Black-crowned Monjita *Xolmis coronatus* (Passeriformes, Tyrannidae), in flight, recorded on 06/19/2016 in the Environmental Protection Area of Banhado Grande (EPABG) on the border with the Banhado dos Pachecos Wildlife Refuge, municipality of Viamão, Rio Grande do Sul state, Brazil. Photo: Alexsandro Rodrigo Mohr.

12 *X. dominicanus* and two *X. irupero*, but no interaction between these species was recorded.

These records were made separately along three following austral winters, indicating an expansion of the known distribution of the species of about 380 km towards the East of Rio Grande do Sul state (Figure 1). Besides that, our results highlight the importance of Protected Areas for biodiversity maintenance, in this case, for the birds. The WRBP is considered a significant area for bird conservation, and presents great relevance as habitat for many bird species that depends on dense wetlands and wet grasslands, including species threatened with extinction like *X. dominicanus* and *X. flavus* (Bencke *et al.* 2006).

Probably, *X. coronatus* was not reported within the WRBP but within the damping zone, because in this area there are managed pastures that provide suitable habitats for the *X. coronatus*. The planning of vegetation management alternatives in Protected Areas is also indicated for the maintenance of other species, such as *X. flavus* and *X. dominicanus*, both endangered species that occur in the region (Mohr *et al.* 2017), and further studies must be conducted in this regard. The records reported here are especially useful for future distribution models of the species in southern Brazil.

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