



First record of Cory's Bittern and the status of Least Bittern (*Ixobrychus exilis*) in Paraguay

Rob P. Clay^{1*}, Paul Smith² and Adolfo Lird³

¹ WHSRN Executive Office, Gaetano Martino 215, Asunción, Paraguay;
robpcly31@yahoo.co.uk

² Fauna Paraguay, Encarnación, departamento Itapúa, Paraguay;
faunaparaguay@gmail.com

³ Para La Tierra, Municipalidad de Santa Barbara, Departamento San Pedro, Paraguay;
a_lird@cu.coop.py

*Primary contact

Abstract

We report the first record of the dark form of the Least Bittern, historically called the Cory's Bittern, in Paraguay, photographed 24 April 2010 in Asunción. Paraguay is at the southern edge of the range of the Least Bittern. From an examination of records, we conclude that it is a scarce breeding resident in the Humid Chaco and the wetlands of southern and western parts of the Oriental Region. While there is no evidence of migration in this population, the appearance of birds in urban settings suggests this population undergoes local movements.

Key words: Cory's Bittern; distribution; Least Bittern; migration; Paraguay; South America.

Introduction

The Least Bittern *Ixobrychus exilis* has an extensive breeding range from southeast Canada, through the USA (primarily in the east), Central America and the Caribbean to northern and central South America (Kushlan and Hancock 2005). In Paraguay, Hayes (1995) listed the species as a rare breeding resident of the western part of the country (the Humid Chaco), while del Castillo and Clay (2004) considered the species' range to

also include southern Oriental Paraguay (as a scarce breeding resident).

Least Bitterns typically have a pale buff and black plumage, though a rare variant, known as "Cory's Bittern" has the pale areas replaced by dark chestnut, especially on the neck, underparts and wing coverts (Kushlan and Hancock 2005). Cory's Bittern was first collected in Florida, USA in 1885 and was described as a new species (*Ardeetta neoxena*) by Cory (1886), though Kum-

lien *et al.* (1948) reported an earlier specimen obtained at Lake Koshkonong, Wisconsin in June 1845, an illustration of which “plainly shows the specimen to have been a typical *Ardetta neoxena*”. Soon after its description, Scott (1892) suggested that Cory’s Bittern might prove to be a color morph of Least Bittern, and by 1923 it had been removed from the AOU Check-list (AOU 1923). More recent authors have referred to Cory’s Bittern as a combination erythristic and melanistic morph (Bent 1926, Pittaway and Burke 1996), with some birds also showing some (slight) leucistic plumage (e.g. Chapman 1896, Taverner 1934). However, Smith (2014) considered that Cory’s Bittern should actually be viewed as a colloquial name that refers to any one of a number of abnormally dark-plumaged, genetically undefined and phenotypically heterogeneous Least Bitterns. Here we report the first record of a Least Bittern with a Cory’s type plumage from Paraguay, and provide an overview of the status of Least Bittern in the country.

First record of Cory’s Bittern in Paraguay

On the afternoon of 24 April 2010, AL photographed a small chestnut-colored bittern on the sidewalk in central Asunción (close to the intersection of the streets Camilo Recalde and Dr. Toribio Pacheco, Mariscal Estigarribia district, 25°18'7"S, 57°34'35"W). Being unfamiliar with the bird, he shared the photo (Fig. 1) with Robert Owen, PS and RC. The bird was identified as a Least Bittern with Cory’s type plumage through the combination of rich chestnut and black plumage, and the lack of the pale buff and white areas of the normal plumage of Least Bittern. The crown, hindneck and back were glossy-black; the throat, foreneck, belly and upperwing coverts dark chestnut. The chin was blackish, extending as a more or less continuous stripe down the throat and central underparts, with some paler buff feathering. The bird showed a yellowish-

brown bill, unlike the blackish-brown coloration often reported for Cory’s Bitterns (see, e.g. Pittaway and Burke 1996, Teixeira and Alvarenga 1985). The dark throat stripe, while typical of the normal plumage of Least Bittern doesn’t appear to have been reported for other Cory’s Bitterns (Cory 1886, Scott 1892, Pittaway and Burke 1996).

Status of Least Bittern in Paraguay

Least Bittern was first reported from Paraguay by de Azara (1805, his “Garza Roxa y Negra no. CCCLX). Although de Azara didn’t observe the species in the wild he received four individuals caught by people sailing up the Paraguay River. According to Hayes (1995, citing Bertoni 1930, 1939) the next record of the species was of one or more specimens collected at Villa Hayes, Presidente Hayes Department (25°06’S, 57°34’W). However, Bertoni (1930) only mentions *Ixobrychus involucris* collected at the site, though Bertoni (1939) does list the species for Villa Hayes, but with no additional details. Subsequent records from the Chaco up until 1994 (5 in total) are summarized by Hayes (1995). More recent records are presented in Appendix 1.

The first published record for eastern Paraguay was a bird observed at Lago Ypacarai (25°15’S, 57°20’W), Cordillera Department on 10 December 1995 (RPC; Lowen *et al.* 1997), with the next an immature at Colonia Tendal (8 km N of Jejui mi, Reserva Natural del Bosque Mbaracayú, Canindeyú Department) on 4 Oct 1996 (Capper *et al.* 2001). However, the species had previously been observed at three sites in the vicinity of the Itaipú hydroelectric dam in extreme eastern Paraguay: Salto de Guaira (24°02’S, 54°16’W) Canindeyú Department; Hernandarias (25°20’S, 54°40’W) and Río Monday (25°33’S, 54°41’W) Alto Paraná Department (Pérez and Colmán 2003).

Since the late 1990s, the species has been recorded more widely (and frequently) in the country (see Map 1 and Appendix 1 for a list of all records), including from the Paraguayan Pantanal (Alto Paraguay Department) and the wetlands of Ñeembucú, Misiones and Itapúa Departments (in the south of the country). The most westerly record is of one flying over the Ruta Transchaco at km 535.5 (21°58'31.8"S, 60°39'56.52"W) on 6 Jan 2012 (RPC). The species has been recorded in all months of the year, though most (23 of 29) have occurred between August and March (the austral spring, summer and fall). The only confirmed record of breeding is of a pair observed with two downy young at Estancia San Juan (24.49°S, 57.76°W), Presidente Hayes Department on 17 Dec 2006 by Hugo del Castillo and Arne Lesterhuis.

In addition to the Cory's Bittern, there are several other records of Least Bittern being found in urban areas in or around Asunción. The first may well have been the 1979 UMMZ specimen, which was brought alive to Mrs. Margaret Myers in Asunción, where it was kept alive for some time (Storer 1989). On 21 Mar 2002, one was delivered to the Fundación Moisés Bertoni, having been found in a garden in the city. On 7 June 2002, a national television channel received a tape of a bird filmed in a garden in San Lorenzo (a city contiguous with Asunción), and on 3 Dec 2002 one was found along the road to Asunción airport (in Luque). On 2 Sep 2010 an adult female was found in a garden in Asunción (and was taken to the Guyra Paraguay office), and on 8 Apr 2013 an apparent adult female was found in a garden in Lambaré (another city contiguous with Asunción) and shown on national television.

Discussion

Since the original description, specimens of Cory's Bittern have been collected in the states of

Illinois, Florida, Massachusetts, Michigan, New York, Ohio and Wisconsin (all USA) and in particular from Ontario province, Canada (Pittaway and Burke 1996). In fact, of the 38 known specimens, 22 are from Ontario. Most specimens were collected prior to 1900, and there would appear to be only seven records of the plumage type since the 1950s, including two sight records from Oklahoma and the first records from South America (Teixera and Alvarenga 1985, Pittaway and Burke 1996, Sibley 2011).

Teixera and Alvarenga (1985) documented the first specimen of Cory's Bittern from outside of North America, a bird collected in May 1967 in São Paulo state, Brazil. Since Dec 2008 several have been observed in the Brazilian Pantanal (Mato Grosso do Sul State) including two that have been filmed, see <http://www.youtube.com/watch?v=-DraxAu98Vw> and <http://www.youtube.com/watch?v=kBVIUG3cIBs> (Braulio Carlos in litt. 2014). The Paraguayan record is thus the third locality for a Cory's type plumage in South America. The rarity of the plumage type is attested to by Teixera and Alvarenga (1985), who note that although Least Bittern was common in their study area, the specimen collected was the only record of Cory's Bittern in almost 20 years of observation. Given its rarity, and the plumage variation reported in specimens (e.g. Cory 1886), it is probably erroneous to consider Cory's Bittern as plumage morph, or even as a standard plumage abnormality, but rather as a colloquial name for a variety of abnormally dark plumaged Least Bitterns (Smith 2014).

Least Bittern appears to be a scarce breeding resident in wetland areas in Paraguay, primarily in the Humid Chaco and the wetlands of the southern and western parts of the Oriental Region. Kushlan and Hancock (2005) commented that southern populations of Least Bittern are not believed to be migratory. While there are very few records of the species in Paraguay during the aus-

tral winter, this may reflect reduced detectability rather than being an indication of (partial) migration. In North America, only those populations north of areas with prolonged frost are migratory (Poole *et al.* 2009). If the same were true of South American populations, then Paraguayan birds would not be expected to migrate. A number of authors (e.g. Restall *et al.* 2006, Ridgely and Greenfield 2001) have mentioned local movements of South American birds, perhaps dependent on rains and the condition of wetlands. Such local movements may be the source of the (presumably disorientated) birds found in urban settings in Asunción and surrounding areas.

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