



SHORT COMMUNICATION

New Paraguayan Specimens and First Confirmed Phenological Data for *Catharisa cerina* Jordan, 1911 (Lepidoptera: Saturniidae)

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ABSTRACT: (New Paraguayan Specimens and First Confirmed Phenological Data for *Catharisa cerina* Jordan, 1911 (Lepidoptera: Saturniidae)). Phenological data is provided for the first time for the little known and recently rediscovered Saturniid *Catharisa cerina* Jordan 1911. The species exhibits at least two annual flights, which are possibly associated with the onset of the rains.

Key words: Laguna Blanca, phenology, Paraguay, specimens.

RESUMO: (Uma nova espécie paraguaia e primeiros dados fenológicos confirmados para *Catharisa cerina* Jordan, 1911 (Lepidoptera: Saturniidae)). Dados fenológicos são fornecidos pela primeira vez para a mariposa Saturniidae *Catharisa cerina* Jordan 1911, recentemente redescoberta e pouco conhecida. Esta espécie exibe pelo menos dois vôos anuais, possivelmente associados com o aparecimento das chuvas.

Palavras-Chave: Laguna Blanca, fenologia, Paraguai, espécimes.

INTRODUCTION

Catharisa cerina Jordan, 1911 is an attractive and enigmatic Saturniid moth (Saturniidae: Hemileucinae) classified in a monotypic genus, that was described based on three female specimens in the British Museum of Natural History (now known as the Natural History Museum, NHM). No data is available for these specimens besides the vague locality of “Paraguay” (I. Kitching *in litt*). Lemaire (2002) examined these specimens, designed a lectotype and provided an illustration of the paratype (plate 114; fig 8).

Later Racheli (2005) documented the existence of two previously overlooked female specimens in the Staatliches Museum für Naturkunde, Stuttgart, Germany (SMNS 2607 and SMNS 2613) for which the original data labels no longer existed. However the specimen numbers do make reference to a handwritten and partly illegible note in the catalogue which provides the following information (as per Racheli 2005):

“SMNS 2607 10.VI.30, (illegible), Corrientes, Col. Liebig. SMNS 2613 13.VI.30, Corrientes.

Specimens are noted as having been received by Dr. Cl. Sunthein (?=m)sen, Colonia Liebig, Apostoles, Argentina, FCNEA.”

Racheli (2005) highlights the fact that Colonia Liebig and Apostoles are two different places. Apostoles in fact is the most southwesterly department of Misiones province in northeastern Argentina, and the eastern

boundary marks the frontier with Corrientes province. The department also has an eponymously named capital (Chebez 1996). There is indeed a Colonia Liebig located in Corrientes province in Ituzaingó department on the banks of the Uruguay River which is very close to the boundary with Apostoles, Misiones, but not within it. However another Colonia Liebig exists just to the north of the City of Colón in Entre Ríos Province, also on the banks of the Uruguay River. In fact, to further confuse matters, during the 19th Century several other Col. Liebigs also existed along the banks of the Uruguay River as bases of operations for the Colonia Liebig meat company (JC Chebez *in litt*).

Though these specimens apparently confirm the presence of *Catharisa cerina* in Argentina, we consider the specimen data provided to be sufficiently vague for the exact locality of these records to be treated with some caution. The error implied in the locality data and the absence of the original specimen labels are cause for uncertainty. In fact given the vagaries of the collection data for the NHM specimens, the precise distribution of this rarely encountered moth is far from clear.

Smith (2009) details the fortuitous rediscovery of this species in Paraguay at Laguna Blanca, Departamento San Pedro, on 12 October 2006 (S 23 48' 45.4", W 56 17' 41.7") (Fig 1). The first photographs of a live specimen of this species were provided and it represented the first documented record of this species since 1930. Further-

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more this record provided the first unequivocal locality data for this rare moth. The species was found in an area of transition from dry cerrado to Atlantic Forest, two highly-threatened habitats endemic to the Neotropics. Unfortunately the location of the individual on a car windscreen provided no clues as to the preferred habitat of the species.

In this short note we provide data about new specimens of this species from Paraguay with some comments on its phenology, plus a report of the first ever male specimens of *C. cerina*.

MATERIAL AND METHODS

Following the establishment of the Para La Tierra Ecological Station (PLT) at Laguna Blanca in April 2010, a year round survey of the Lepidopteran fauna with special emphasis on Saturniidae and Sphingidae was begun. The aim of this ongoing sampling is to perform regular monitoring as part of a long term investigation into the phenology of the species inhabiting the newly declared Reserva Natural de Laguna Blanca (RNLB). Herein we provide data of additional specimens of *Catharisa cerina* collected as part of this project.

Climatic range data for the standard nightly trapping

period (7pm-10pm) are provided for the specimens taken at the light trap, as recorded automatically on the hour by a HOBO Pro Series Temp, RH (C) data recorder, model 1998. The following abbreviations are used T (Temperature Range), RH (Relative Humidity) and AH (Absolute Humidity). This data is not provided for the specimens that were found dead on account of the uncertainty associated with their flight times.

RESULTS AND DISCUSSION

On 28 September 2010 a female *Catharisa cerina* was attracted to a light trap at the PLT headquarters, just a few hundred meters from the location of the individual documented by Smith (2009). The light trap was located close to the main building facing a patch of dry cerradón forest in an area of transition from cerrado to Atlantic Forest vegetation. Over the following two nights, three more specimens were captured at the same location and in the same manner. All specimens were gravid females, but attempts to rear the larvae were unsuccessful. The four females were collected and are housed in the Colección Zoológica de Para La Tierra (CZPLT) with the following specimen numbers:



Figure 1. Map showing the location of Reserva Natural Laguna Blanca, Departamento San Pedro, Paraguay where the specimens reported here were collected.

Females

CZPLT-I 170, 28.IX.2010;
 CZPLT-I 187, 29.IX.2010;
 CZPLT-I 188, 30.IX.2010;
 CZPLT-I 189, 30.IX.2010.

Despite continuous year round sampling at this site, there were no further records of this species until 14 September 2011 when a damaged male specimen was found dead at one of the accommodation buildings at PLT headquarters. An additional male with a damaged wing was found already dead on 26 September 2011, again presumably having been attracted to one of the lights at the building. Further specimens were collected over the following week, two males (29 September and 5 October 2011) and a female (1 October 2011). No further specimens were observed until a male was captured on 15 March 2012. The specimens reported here represent the first known records of males of this species, and a full description of them will be published in a forthcoming article.

The specimens, as detailed below, are housed in the Para La Tierra collection.

Males

CZPLT-I 450, 14.IX.2011;
 CZPLT-I 451, 29.IX.2011; T 22.86-25.17 °C; RH 79.8-91.8%; AH16.7-18.8.
 CZPLT-I 452, 26.IX.2011;
 CZPLT-I 443, 5.X.2011; T 22.86-26.34 °C; RH 68.5-84%; AH17-17.9.
 CZPLT-I 748, 15.III.2012; T 20.95-25.95 °C; RH 68-76%; AH13.9-16.6.

Female

CZPLT-I 442, 1.X.2011; T 17.52-18.28 °C; RH 97.5-101.6%; AH14.9-15.3.

The proximity of these dates to those of the photographed specimen reported by Smith (2009) is sufficient to suggest that a brief flight takes place in this area of Paraguay from mid September to the beginning of October, approximately corresponding to the onset of the

rainy season. It is of note that the species has not been uncommon at light traps at Laguna Blanca during this brief window of time for two consecutive years, and its rarity in collections is likely a result of a lack of sampling effort at the correct times and places rather than actual rarity of the species. A second flight also apparently occurs in March during a second, shorter rainy season in Paraguay. This species thus has at least two annual flights, possibly associated with the onset of rains.

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