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PENSOFT

Acrocinus longimanus (Linnaeus, 1758) (Coleoptera, Cerambycidae): first record from the province of Corrientes, Argentina

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Abstract
The occurrence of *Acrocinus longimanus* (Linnaeus, 1758) in Corrientes, Argentina, is reported for the first time. This record extends the known distribution of this species to 300 km south from the nearest occurrence record in Argentina.

Key words
Longhorned beetle; Lamiinae; northeastern Argentina; range extension; new record.

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Introduction

The subfamily Lamiinae Latreille, 1825, includes 2964 genera and more than 21,000 species (Monné et al. 2017), and in most regions is the richest cerambycid subfamily, although it is outnumbered by Cerambycinae in the Australian, Neartic, and Neotropical regions (Forchhammer and Wang 1987). Acrocinini Swainson, 1840, belongs to Lamiinae, and according to Monné and Hovore (2002), includes *Acrocinus* Illiger, 1806 and *Macropophora* Thomson, 1864. Néouze and Tavakilian (2003) transferred *Macropophora* to the tribe Acanthoderini. Currently, Monné et al. (2017) includes in the Acrocinini only the genus *Acrocinus*, and one species *Acrocinus longimanus* (Linnaeus, 1758).

Acrocinus longimanus is widely distributed in the Neotropical region and occurs in Mexico, Belize, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panama, Trinidad and Tobago, Colombia, Venezuela, Ecuador, Surinam, French Guyana, Guyana, Brazil, Bolivia, Paraguay, and Argentina (Monné 2017).

Adults are nocturnal; their activity can be observed from dusk until dawn. The larvae feed on wood, mainly on injured trees or those that have been recently cut down (Duffy 1960, Zaragoza-Caballero et al. 2017). Larval host plants are: *Couma guianensis* Aublet, *Parahancornia fasciculata* (Poiret) R. Benoist ex Pichon (Apocynaceae), *Caryocar brasiliense* Cambessèdes (Caryocaraceae), *Lonchocarpus spruceanus* Bentham (Fabaceae), *Persea sp.* (Lauraceae), *Chorisia speciosa* A. Saint-Hilaire, *Guazuma ulmifolia* Lamarck (Malvaceae), *Enterolobium contortisiliquum* (Velloso) Morong, *Inga* sp. (Mimosaceae), *Artocarpus altilis* (Parkinson) Fosberg, *A. communis* J.R. Forst. and G. Forst. *A. integrifolia* Linné, *Bagassa guianensis* Aublet, *Brosimum acutifolium* Huber, *B. alicastrum* Swartz, *B. parinarioides* Ducke, *B. rubescens* Taubert, *B. utile ovatifolium* (Ducke) C.C. Berg, *Castilloa elastica* Cervantes, *Chlorophora* sp., *Ficus elastica* Roxburgh ex Hornemann, *F. glabrata* Kunth, *F. gleasonii* Standley ex Kribs, *F. gomelleira* Kunth and Bouché, *F. guianensis* Desvaux, *F. microcarpa* var. *nitida*

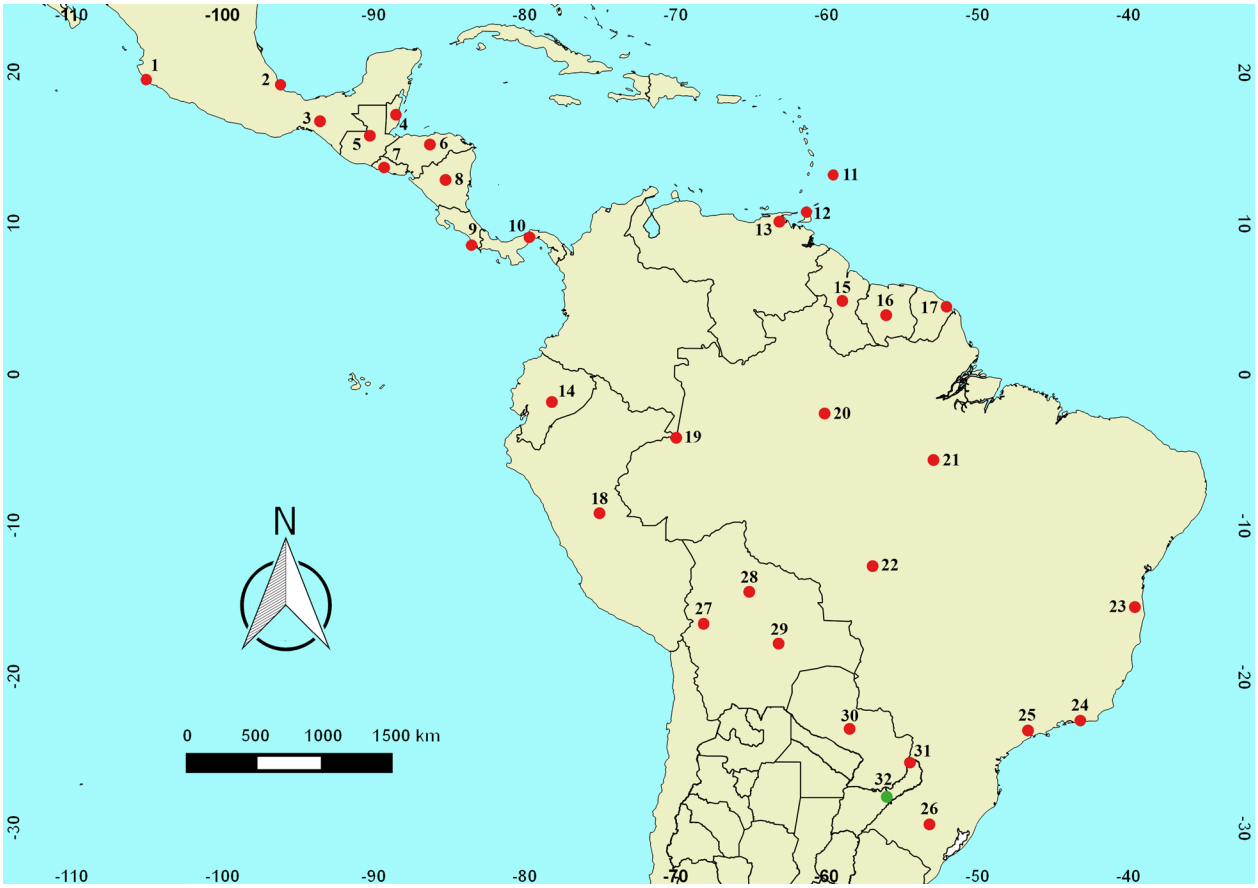

Figure 1. Distribution of *Acrocinus longimanus*. Red dots are historic localities. Green dot (32) is the new locality.

(King) F.C. Honemann, *F. pohliana* Miquel, *F. subtriplinervium* Miquel, *Maclura pomifera* (Rafinesque) C. Schneider, *M. tinctoria* (Linné) Don ex Steudel, *Perebea mollis* (Poeppig and Endlicher) Huber, *Urostigma enorme* Miquel (Moraceae), and *Eucalyptus tereticornis* Smith (Myrtaceae) (Monné 2017).

The aim of this study is to report the first occurrence of *A. longimanus* in the province of Corrientes, and to extend the previously known range of the geographic distribution.

Methods

The study site is located in Santo Tomé Department, Corrientes Province, Argentina (Figs 1, 2). The climate of the region is subtropical, with mean annual temperature greater than 20 °C and a mean? January temperature greater than 30 °C; the annual rainfall is about 1700 mm, mainly occurring in the summer months (600 mm), although occasional summer droughts may also occur (Servicio Meteorológico Nacional 2016).

Biogeographically, the study site is located in the Campos and Malezales Ecoregion; it is bordered by the Paranaense Ecoregion in the northeast and by the Ibera Marshlands and the Espinal Ecoregions in the west. The prevailing vegetation units are grasslands, known as "flechillar" due to the dominance of grass genera such as *Stipa* and *Aristida*, interrupted by isolated Chaco forest patches or remnant of slender Paranaense forests (Matteucci 2012). The area has softly undulating topography with altitudes between 130 and 200 m and is heavily fragmented due to deforestation; it is surrounded by *Pinus* spp. and *Eucalyptus* spp. plantations, tea, and yerba mate crops (Matteucci 2012).

The sampling was undertaken in San Alonso; the vegetation unit corresponds to a Paranaense forest relict, with 4 well-differentiated strata: 2 arboreal, 1 shrubby, and 1 herbaceous. In the upper arboreous stratum (over 16 m) are *Nectandra megapotamica* (Spreng.) Mez, *Inga urugüensis* Hook. and Arn., *Aralia warmingiana* (Marchal) J. Wen, and *Ficus luschnathiana* (Miq.) Miq., among others. In the lowest tree stratum (8–16 m) the

Figure 2. Remnant of the Paranaense Forest in San Alonso, Corrientes, Argentina.

prevailing species are *Cupania vernalis* Cambess., *Helietta apiculata* Benth, *Hennecartia omphalandra* J. Poiss, *Guarea macrophylla* Vahl, and *Zanthoxylum rhoifolium* (Lam.) (Matteucci 2012).

The specimen was manually collected in November 2015, from a *Ficus luschnathiana* trunk, during faunal surveys. It was kept and taken to the laboratory, where it was sorted, identified, and labelled. The specimen was deposited (voucher number CARTROUNNE 6664) in the collection of the Universidad Nacional del Nordeste, Facultad de Ciencias Exactas, Corrientes, Argentina.

Historical records on the geographic distribution of the species were obtained from published data (Table 1). If the geographic coordinates were not provided, localities were geolocated with Google Earth (Google 2017). The distribution map was designed using Quantum GIS 2.18.14 (datum WGS84).

Results

Acrocinus longimanus (Linnaeus, 1758)

New record. Argentina, Corrientes, Santo Tomé, San Alonso, 27°56′59″ S, 055°59′21″ W, 194 m elevation above sea level, male, 24-XI-2015, M. L. Chatellenaz leg. (voucher number CARTROUNNE 6664).

Identification. The specimen was identified following descriptions provided by Duffy (1960), Vizcarra-Sánchez (2004), and Douglas and Salazar (2005); the identification was also supported by comparison with specimens deposited in the collection of the Museo Argentino de Ciencias Naturales "Bernardino Rivadavia" (MACN). The species was confirmed by the specialist Miguel Angel Monné (Museu Nacional/UFRJ, Rio de Janeiro, Brazil).

The adults of *A. longimanus* (Fig. 3) have the following characteristics: large, with a body length range from 43 to 75 mm; antennae black, longer than body length, with 11 antennomeres, with small orange spots at the junction; prothorax with long spine-shaped tubercle on each side; elytra with black background color with symmetrical, greenish yellow and reddish orange, colored patterns covered by dense pubescence; males with extremely long forelegs, its length can reaches 150 mm, and the protibiae exhibit certain degree of curvature; and femora are flattened, black and with tiny orange-red transverse spots at the end of the junction with the tibiae.

Geographical distribution. The previously known geographic distribution of this species extends from Mexico throughout Central and South America (except Chile and Uruguay). It was earlier reported from Misiones, Argentina, and a new state record from Corrientes is now added.

Table 1. *Acrocinus longimanus* records including historic and new records.

Label	Country	Province/state	Latitude	Longitude	Reference
1	Mexico	Jalisco	19°29′54.300″ N	105°02′40.498″ W	Chemsak and Noguera (1993), Monné (2017)
2	Mexico	Veracruz	19°10′25.583″ N	096°08′03.206″ W	Noguera and Chemsak (1996), Monné (2017)
3	Mexico	Chiapas	16°45′31.701″ N	093°31′33.020″ W	Toledo et al. (2002), Monné (2017)
4	Belize	—	17°11′23.557″ N	088°29′51.539″ W	Monné (2017)
5	Guatemala	—	15°47′00.496″ N	090°13′50.732″ W	Monné (2017)
6	Honduras	—	15°11′59.996″ N	086°14′30.858″ W	Monné (2017)
7	El Salvador	—	13°40′27.001″ N	089°17′24.000″ W	Franz (1954), Monné (2017)
8	Nicaragua	—	12°51′55.497″ N	085°12′26.024″ W	Monné (2017)
9	Costa Rica	—	08°33′00.000″ N	083°30′00.000″ W	Hubweber (2008), Monné (2017)
10	Panama	—	09°04′27.000″ N	079°39′35.000″ W	Zeh et al. (1992), Monné (2017)
11	Barbados		13°11′37.993″ S	059°32′35.512″ W	Blackwelder, 1946
12	Trinidad and Tobago	—	10°45′00.000″ N	061°19′00.000″ W	Zeh et al. (2003), Monné (2017)
13	Venezuela	—	10°06′39.999″ N	063°06′16.999″ W	Fisher (1944), Monné (2017)
14	Ecuador	—	01°49′52.460″ S	078°11′00.261″ W	Monné (2017)
15	Guyana	—	04°51′37.498″ N	058°55′48.648″ W	Monné (2017)
16	Surinam	—	03°55′09.498″ N	056°01′40.018″ W	Monné (2017)
17	French Guiana	—	04°29′00.000″ N	052°02′00.000″ W	Zeh et al. (1992), Monné (2017)
18	Peru	—	09°11′23.881″ S	075°00′54.547″ W	Gilmour (1965)
19	Colombia	—	04°11′37.250″ S	069°56′24.660″ W	Colorado and Torres-Bejarano (2016), Monné (2017)
20	Brazil	Amazonas	02°35′21.000″ S	060°06′55.000″ W	Martins et al. (2006), Monné (2017)
21	Brazil	Pará	05°39′34.000″ S	052°54′03.000″ W	Monné (2017)
22	Brazil	Mato Grosso	12°40′54.736″ S	056°04′00.000″ W	Monné (2017)
23	Brazil	Bahia	15°23′00.000″ S	039°33′00.000″ W	Martins and Galileo (2010), Monné (2017)
24	Brazil	Rio de Janeiro	22°54′24.648″ S	043°10′22.427″ W	Monné (2017)
25	Brazil	São Paulo	23°33′01.872″ S	046°37′59.913″ W	Monné (2017)
26	Brazil	Rio Grande do Sul	29°46′00.000″ S	053°10′00.000″ W	Monné (2017)
27	Bolivia	La Paz	16°29′22.880″ S	068°07′09.456″ W	Monné (2017)
28	Bolivia	Beni	14°22′41.789″ S	065°05′44.805″ W	Monné (2017)
29	Bolivia	Santa Cruz	17°48′52.495″ S	063°09′21.907″ W	Monné (2017)
30	Paraguay	—	23°26′33.011″ S	058°26′37.795″ W	Di Iorio (2004a), Monné (2017)
31	Argentina	Misiones	25°40′59.473″ S	054°27′16.923″ W	Di Iorio (2004b), Monné (2017)
32	Argentina	Corrientes	27°56′59.000″ S	055°59′21.000″ W	This publication

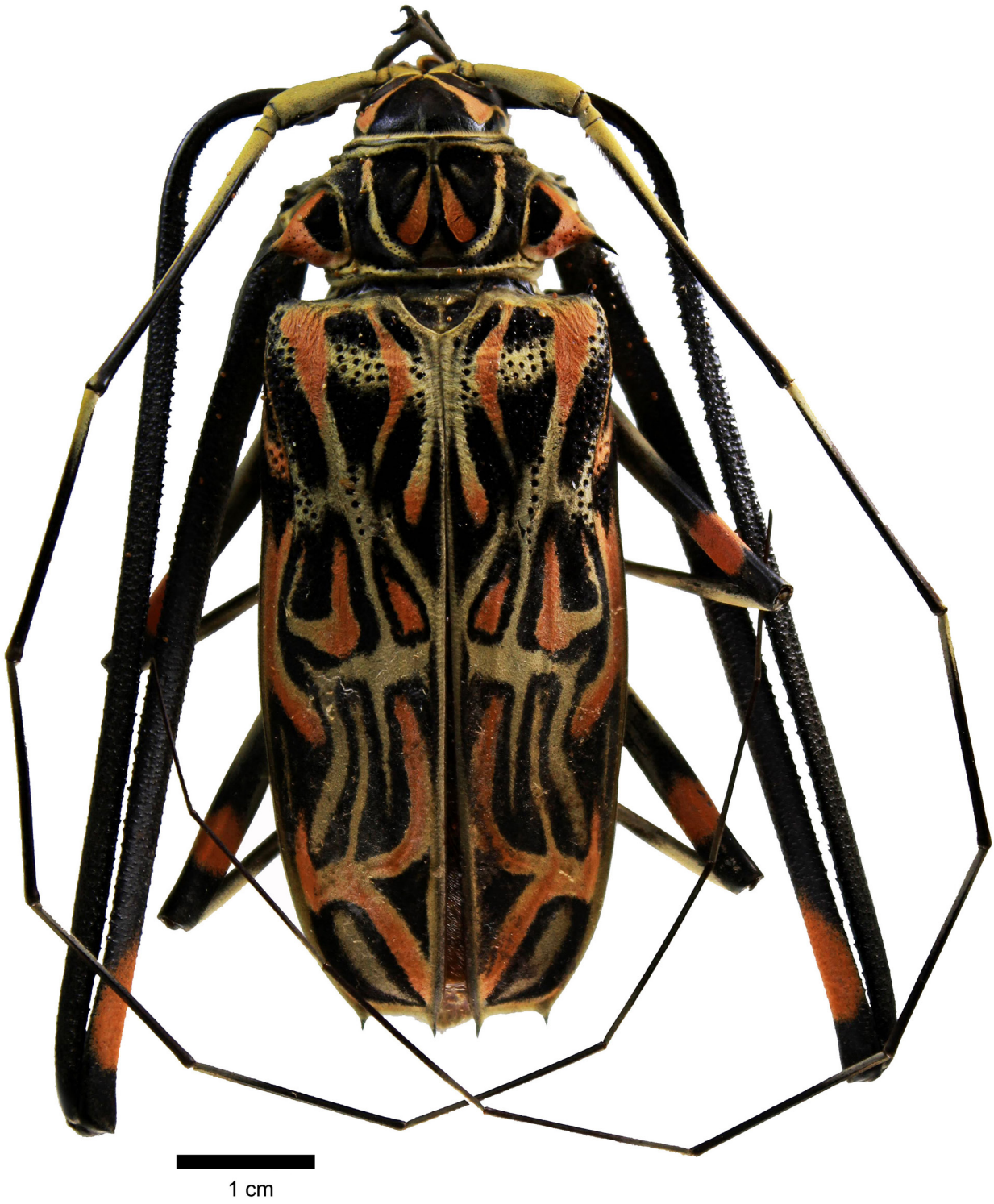

Figure 3. *Acrocinus longimanus* male habitus in dorsal view. Corrientes, Argentina.

Discussion

The reason that explains the presence of *A. longimanus* in northeastern Corrientes is probably the environment in which it was found, as in previous surveys, most occurrences are from forests of the Paranaense ecoregion (Bridarolli 1944, Pacini 2011) with similar floristic composition to the recently surveyed forest fragment. Its presence on a trunk of *Ficus luschnathiana* is consistent with previous studies (Oliva 1997, Zaragoza-Caballero et al. 2017).

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Authors' Contributions

MC collected the specimen; NGV identified the species and made the map; NGV, MC, and MPD wrote the text; and NGV and MC took photographs.

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