New state records of the harlequin beetle, Acrocinus longimanus (Linnaeus, 1758) (Coleoptera: Cerambycidae), in Mexico

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Scientific Note

New state records of the harlequin beetle, *Acrocinus longimanus* (Linnaeus, 1758) (Coleoptera: Cerambycidae), in Mexico

Acrocinus longimanus (Linnaeus, 1758) (Fig. 1), popularly known as harlequin beetle, is the only species of the genus *Acrocinus* Illiger, 1806 (Cerambycidae: Lamiinae: Acrocinini). Adults can be easily recognized by a characteristic pattern of black marks contrasted with yellow and orange on the head, thorax and elytra and large size, ranging from 43 to 75 mm in length (Contreras-Roque & Ríos 2018, Valle et al. 2017, Zeh 2003). This species presents sexual dimorphism, especially in the length of the forelegs, which in males are almost twice the length of that in females. In addition, the foretibiae in males have the apex strongly curved, while in females it is distinctly less curved (Fuentes-Mario & Salcedo-Rivera 2018, Valle et al. 2017, Zeh et al. 1992).

Acrocinus longimanus is attracted to the lights (Contreras-Roque & Ríos 2018, Hubweber 2008, Valle et al. 2017) and has been associated with dead and decaying trees (Hubweber 2008, Rosado & Salazar 2005, Zeh et al. 2003). They have been reported on *Ceiba* sp. (Malvaceae), *Eucalyptus* sp. (Myrtaceae), and *Ficus* sp. (Moraceae) in Brazil (Santos & Pereira-Colavite 2017); *Theobroma cacao* Linnaeus (Malvaceae), *Clarisia racemosa* Ruiz & Pav. (Moraceae), and *Guazuma ulmifolia* Lamarck (Malvaceae) in Colombia (Rosado & Salazar 2005); *Brosimum alicastrum* Swartz (Moraceae) in El Salvador (Fuentes-Mario & Salcedo-Rivera 2018); and *Lonchocarpus* sp. (Fabaceae), *Ficus* sp., and *Ceiba speciosa* (A.St.-Hi.) Ravenna in Peru (Contreras-Roque & Ríos 2018). The species has been considered as a keystone species for saproxylophagous invertebrate communities because the larvae accelerate decomposition of the wood and subsequent colonization by other invertebrates (Zeh et al. 2003). Three species of pseudoscorpions: *Cordylochernes scorpioides* (Linnaeus, 1758), *Lustrochernes intermedius* (Balzan, 1892), and *Parachelifer lativittatus* (Chamberlin, 1923) have been reported as phoretic associates (Zeh et al. 2003), and it has been reported as producing antimicrobial and antifungal peptides of potential pharmacological use for humans (Barbault et al. 2003, Contreras-Roque & Ríos 2018, Hancock et al. 2006). Despite

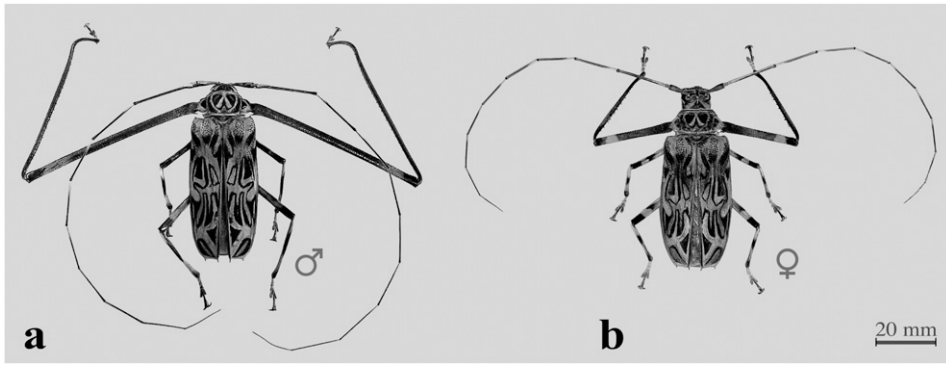

Figure 1. *Acrocinus longimanus* (L.) in dorsal view. a) male (specimen of Santa Catarina Coatlán, Oaxaca); b) female (specimen of Puerto Vallarta, Jalisco).

its economic and ecologic importance, the distribution of this large and conspicuous beetle in Mexico remains poorly understood. Herein we summarize known records of this species in Mexico and document two new state records.

Collections Examined (all in Mexico). Colección de Insectos Entomófagos del Centro Nacional de Referencia de Control Biológico, Tecomán, Colima (CIE-CNRCB); Colección de Insectos del Instituto Tecnológico del Valle de Oaxaca (CITVO); Colección Particular de Romeo Cid Flores, Xoxocotlán, Oaxaca, (CRCF); Colección de Insectos del Centro Interdisciplinario de Investigación para el Desarrollo Integral Regional, Unidad Oaxaca del Instituto Politécnico Nacional (CIIDIR-IPN OAX).

Acrocinus longimanus is widely distributed from Mexico to Paraguay and northern Argentina in tropical and subtropical forests at elevations up to 2150 meters asl (Colorado & Torres-Bejarano 2016, Contreras-Roque & Ríos 2018, Monné 2019, Valle et al. 2017). In Mexico, it was previously recorded in the states of Hidalgo (Gálvez-Ruiz et al. 2012), Jalisco (Chemsak & Noguera 1993, Monné 2019), Veracruz (Bates 1885, Monné 2019, Noguera & Chemsak 1996), and Chiapas (Monné 2019, Toledo et al. 2002). We report *A. longimanus* for the first time in the states of Colima and Oaxaca (Fig. 2). In addition, we report a new locality in the state of Jalisco based on a single specimen collected in Puerto Vallarta. To our knowledge, this is

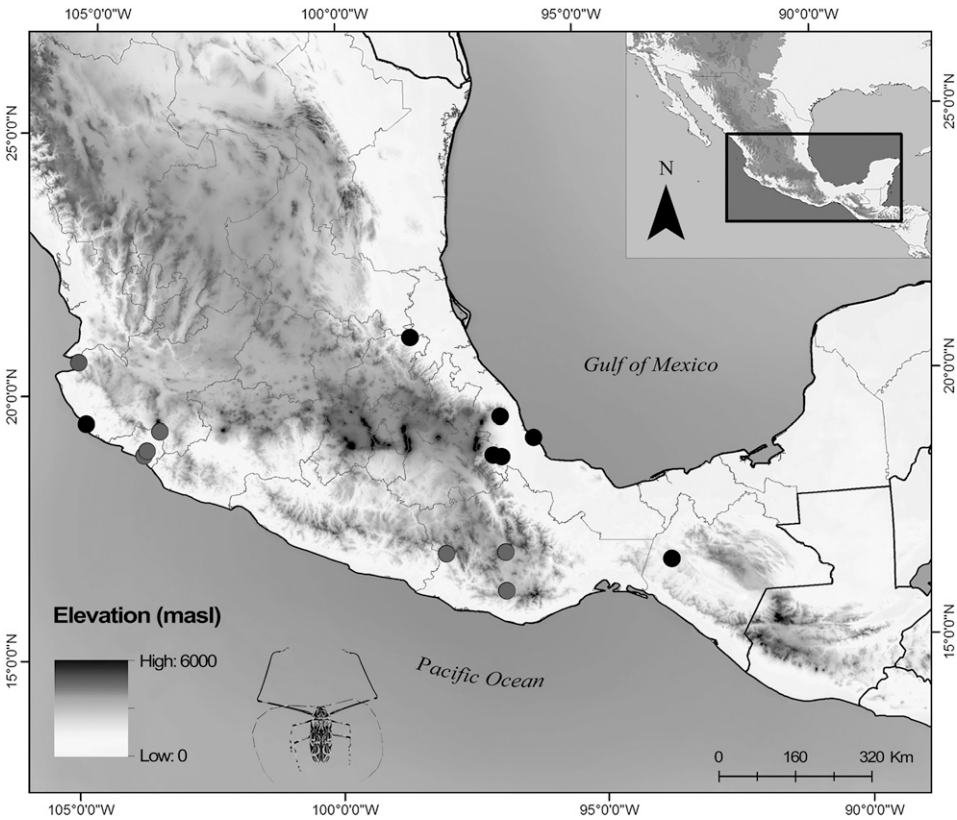

Figure 2. Distribution of *Acrocinus longimanus* in Mexico. Black dots = previous records (according literature). Red dots = new state records (examined specimens). Blue dot = new locality record (examined specimen).

the northwesternmost record of the species, extending its distribution approximately 129 km from the nearest record in Chamela, Jalisco. According to our distribution map, it is likely that the species also occurs in lowlands along the coast in the states of Nayarit, Michoacán, Guerrero and Tabasco.

Specimens Examined. Seven specimens with the following collection data: MEXICO: COLIMA **(new state record)**: Tecomán, 18°55'23''N, 103°52'58''W, 43 masl, 02-V-2016. Col. Rodríguez, V. B., 1 ♂, [CIE-CNRCB]; Tecolapa, 19°00'44''N, 103°49'41''W, 155 masl, 02-V-2016, Col. Rodríguez, V. B., 1 ♀ [CIE-CNRCB]; Quesería, 19°22'52''N, 103°34'23''W, 1214 masl, 15-VI-1990, Col. Rodríguez, V. B., 1 ♀ [CIE-CNRCB]. OAXACA **(new state record)**: Putla Villa de Guerrero, 17°1'38"N, 97°55'41"O, 750 masl, 24-X-2015, Col. García, E., 1 ♀ [CITVO]; Xoxocotlán, Nazareno, 17°1'17"N, 96°45'59"W, 1562 masl, 7-X-2016, Col. Krauleta, E., 1 ♀ [CITVO] ; Santa Catarina Coatlán, 16°17'53"N, 96°46'32"W, 1649 masl, 2011, Col. Salazar, I., 1 ♂ [CRCF]. JALISCO: Puerto Vallarta. 20°39'11"N, 105°13'30"W, 343 masl, 20-II-2010, Sánchez G. L., 1 ♀ [CIIDIR-IPN OAX].

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