Check List the journal of biodiversity data
NOTES ON GEOGRAPHIC DISTRIBUTION

An unexpected arrival: first record of *Desmiphora* (*Desmiphora*) *hirticollis* (Olivier, 1800) (Coleoptera, Cerambycidae) from Asia

Ming-Shu Chan[1,2], **Dávid Rédei**[1]

1 Department of Entomology, National Chung Hsing University, Taichung 402, Taiwan
2 Back to the Wild Insect Ecosurvey Company, Shuijing Vill., Beitun Distr., Taichung 406, Taiwan

Corresponding author: Dávid Rédei (david.redei@gmail.com)

Abstract. *Desmiphora* (*Desmiphora*) *hirticollis* (Olivier, 1800) (Coleoptera, Cerambycidae, Lamiinae, Desmiphorini), previously known from the Western Hemisphere, is recorded from Taiwan, and the new data represents a new country record and the first Asian record for both the genus and the species. The specimen was found in a natural environment approximately 4 km from the Port of Kaohsiung. The establishment of the species in Taiwan remains to be confirmed.

Key words. Biological invasion, longhorn beetle, non-native species

Chan M-S, Rédei D (2026) An unexpected arrival: first record of *Desmiphora* (*Desmiphora*) *hirticollis* (Olivier, 1800) (Coleoptera, Cerambycidae) from Asia. Check List 22 (2): 199–204. https://doi.org/10.15560/22.2.199

Introduction

The vast majority of Cerambycidae (Coleoptera) develop in plants, particularly wood, often resulting in their accidental transport via timber or other plant materials. Consequently, the family contains a significant number of invasive species, some of which have a major environmental and economic impact. The rise in international trade has made human-mediated accidental transport an increasingly serious concern.

Cerambycids have been in focus of active research in Taiwan for about a century. Therefore, although new species are still being discovered at a constant rate, Cerambycidae is among the best-known beetle families in the country. The latest checklist for the country (Nakamura et al. 1992) listed 668 species (27 of them questionable records) and 426 (about 64%) of them endemic (without considering the numerous endemic subspecies). Chou (2008) presented colour photos and brief treatments of 618 species. It is noteworthy, however, that no introduced species from this family has been reported as established in Taiwan to date. A recent paper by Chen and Jeng (2023) reported a single individual of the Nearctic species *Semanotus amethystinus* (LeConte, 1853) spotted in a wholesale retail store in Taipei. Given the circumstances of this record, the specimen likely arrived to the store with wood products or packing material, and the absence of subsequent records suggests that the species has not established in the country. Similarly, a few other non-native species (unspecified *Acyphoderes* sp. and *Trichoferus* sp.) reported by border inspection authorities of the Council of Agriculture of Taiwan (Feng 2017) from various imported shipments apparently failed to establish on the island.

This paper reports the recent discovery of another New World cerambycid species, *Desmiphora* (*Desmiphora*) *hirticollis* (Olivier, 1800), in Taiwan. Notably, although only a single individual was found, the specimen was collected in a natural environment. Its establishment in Taiwan remains to be confirmed.

Methods

The material examined in this study was collected as part of a general survey of the insect fauna of Kushan District, Kaohsiung, Taiwan. The research was authorized by the Agriculture Bureau of Kaohsiung City Government (collecting permit no. 11430375000). The specimen was observed resting on a tree branch about 1.5 m above the ground (Figure 1).

OPEN ACCESS

Academic editor: Juan Pablo Botero Rodriguez
Received: 13 January 2026
Accepted: 27 February 2026
Published: 6 March 2026

Copyright © The authors. This is an open-access article distributed under terms of the Creative Commons Attribution License (Attribution 4.0 International – CC BY 4.0)

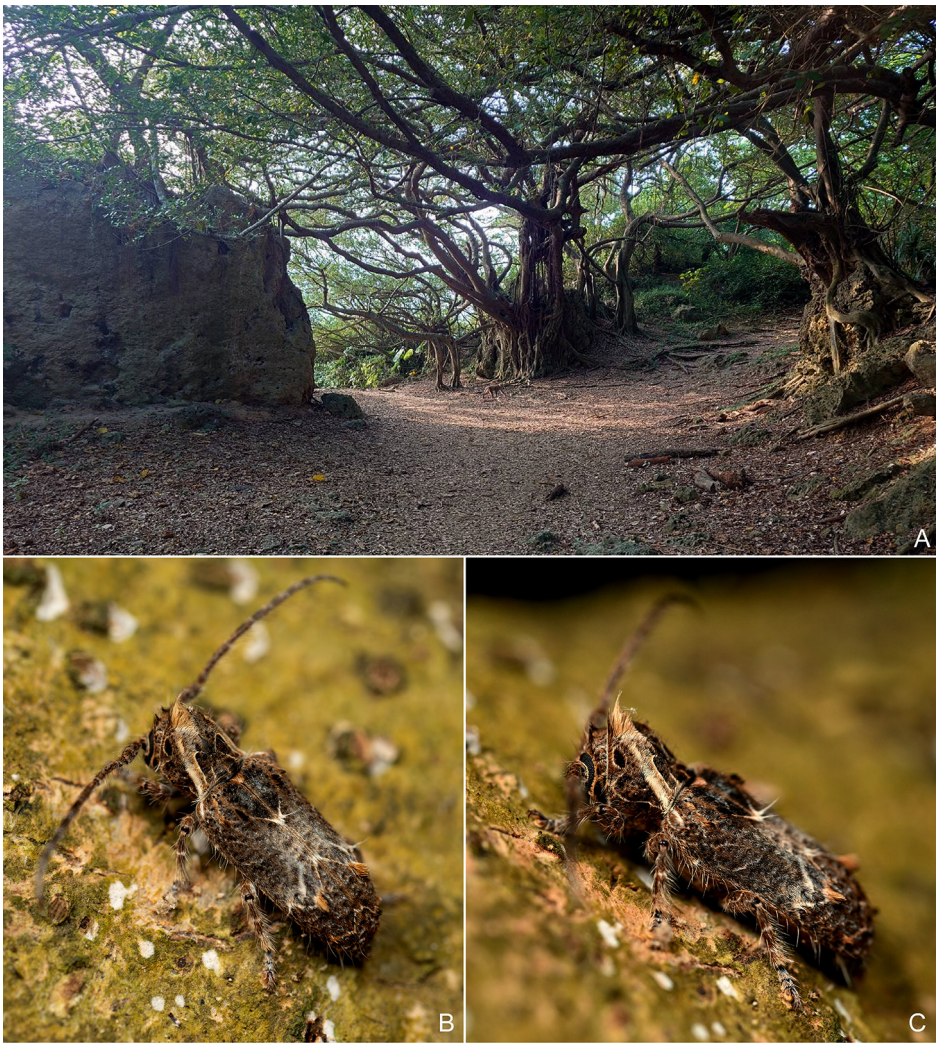

Figure 1. A. Collection site of *Desmiphora* (*D.*) *hirticollis* (Olivier, 1800) in Kaohsiung, Taiwan. **B, C.** The specimen resting on a branch.

The voucher specimen is deposited in the collection of the Department of Entomology, National Chung Hsing University, Taichung (NCHU). Photographs of the preserved specimen (Figure 2) were taken using a Nikon D90 camera equipped with an AF-S Micro Nikkor 60mm f/2.8G ED macro lens. Maps (Figure 3) were generated from data sets of the United States Geological Survey and the free web tool SimpleMappr. The distribution of *D.* (*D.*) *hirticollis* within its native range (Figure 3A) was compiled from published sources.

Results

Genus *Desmiphora* Audinet-Serville, 1835

Diversity and distribution. A relatively large genus of Cerambycidae; 73 species (70 in the nominotypical subgenus *Desmiphora* and three in the subgenus *Antenniphora* Breuning, 1947) were catalogued by Monné (2024). The species are distributed in the Neotropical Region, with a few extending to southern regions of temperate North America, two of them even north to the southernmost USA. The genus is here recorded as new for Asia.

***Desmiphora* (*Desmiphora*) *hirticollis* (Olivier, 1800)**
Figures 1B, C, 2

New record. TAIWAN — Kaohsiung • Kushan Distr., Yüehkuanghai; 22.652°N 120.251°E; 15 m elev.; 1.XI.2025; Ming-Shu Chan leg., 1 spec., NCHU 0010-6823 (Figure 2).

Identification. The species is immediately recognized among cerambycids occurring in Taiwan by its peculiar appearance, particularly the variegated greyish, whitish, and yellowish pubescent pattern, formed by areas of dense pubescence and several conspicuous setal tufts (fasciculi) on the pronotum

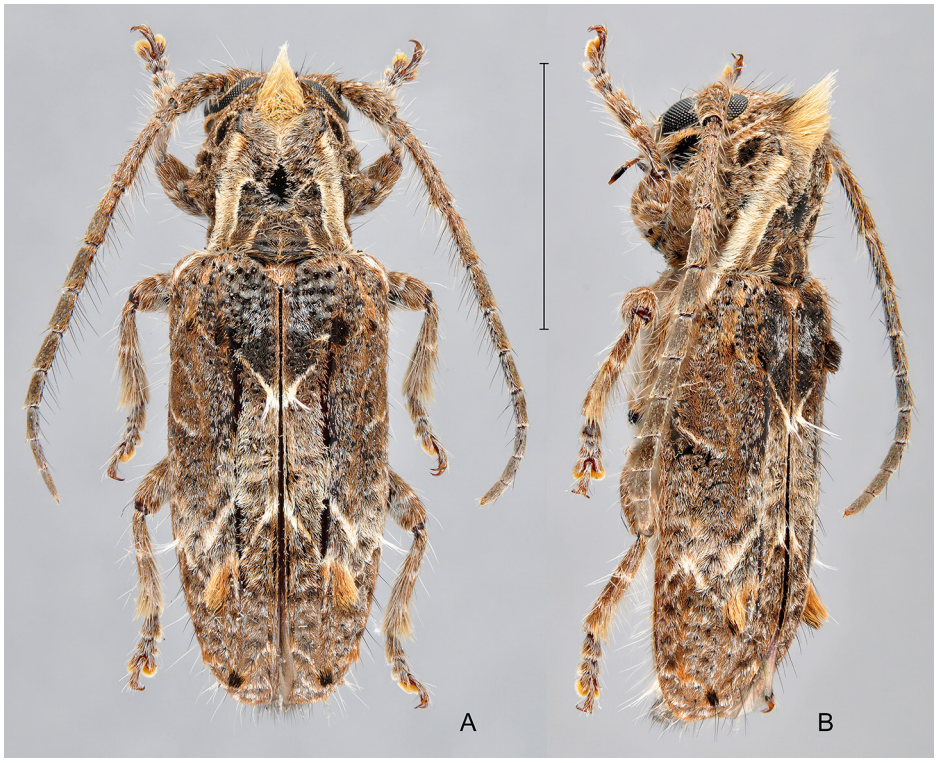

Figure 2. *Desmiphora* (*D.*) *hirticollis* (Olivier, 1800), voucher specimen from Kaohsiung, Taiwan. **A.** Dorsal view. **B.** Dorsolateral view. Scale bar: 5 mm.

and elytra, which were described in detail by Gilmour (1968), Breuning (1974), and Linsley and Chemsak (1985). It cannot be confused with any other beetle occurring in Taiwan and neighbouring areas of Asia; photographs of the voucher specimen (Figure 2) are self-explanatory. To distinguish the species from the congeners described before 1974, the revision of Breuning (1974) can be consulted, with reservations due to possible misidentifications. Additional illustrations that can help the identification of this species include those presented by Hovore et al. (1987), Vitali and Rezbanyai-Reser (2003), Tavakilian and Néouze (2004), Chalumeau and Touroult (2005), Lingafelter (2007), Maes et al. (2010), Morvan and Roguet (2013), Sánchez et al. (2013), Olivier and Santos-Silva (2025), and Quimbayo et al. (2025). The bibliographies compiled by Monné (2005, 2024) serve as additional, highly useful resources.

Distribution. *Desmiphora* (*D.*) *hirticollis* has the broadest distribution among the species of *Desmiphora*, ranging from southern Texas to northern Argentina, including the West Indies and the Galapagos Islands (Tavakilian and Néouze 2004; Monné 2005, 2024; Sánchez et al. 2013; Olivier and Santos-Silva 2025; Quimbayo et al. 2025) (Figure 3A).

Bionomics. In the native range of *Desmiphora* (*D.*) *hirticollis*, larval host plants include *Sapium glandulosum* (L.) Morong (= *S. aucuparium* Jacq., = *S. biglandulosum* (L.) Müll.Arg.) (Euphorbiaceae) (Andrade 1928; Costa Lima 1955), *Cordia elaeagnoides* DC. (Chemsak and Noguera 1995), *C. alliodora* (Ruiz and Pav.) Oken (Chalumeau and Touroult 2005) (both Boraginaceae), and *Wigandia urens* (Ruiz and Pav.) Kunth (Hydrophyllaceae) (Sánchez et al. 2013). Chalumeau and Touroult (2005) presented a photograph of larval galleries in a thick branch of *C. alliodora*, and Sánchez et al. (2013) photographed the larva in the stem of *W. urens*. Adults occur on the above-mentioned species and various additional species of hardwood trees representing several plant families, on the foliage, but particularly on dead trunks and branches (Rice et al. 1985; Hovore et al. 1987; Di Iorio and Farina 2009; Machado et al. 2012; Monné and Chaboo 2015); *Desmiphora* (*D.*) *hirticollis* has been reported feeding on shoots of *Cordia boissieri* A.DC. (Vogt 1949) and undetermined species of Urticaceae (Hovore et al. 1987). It is active in the night, and it can be attracted to light (Hovore et al. 1987).

Discussion

Desmiphora (*Desmiphora*) *hirticollis* is widely distributed in the Neotropical Region (Figure 3A) and it is fairly common in many places of its native area. It is therefore hardly surprising that individuals were time to time detected by U.S. quarantine authorities in overseas shipments of *Cordia* sp. and other

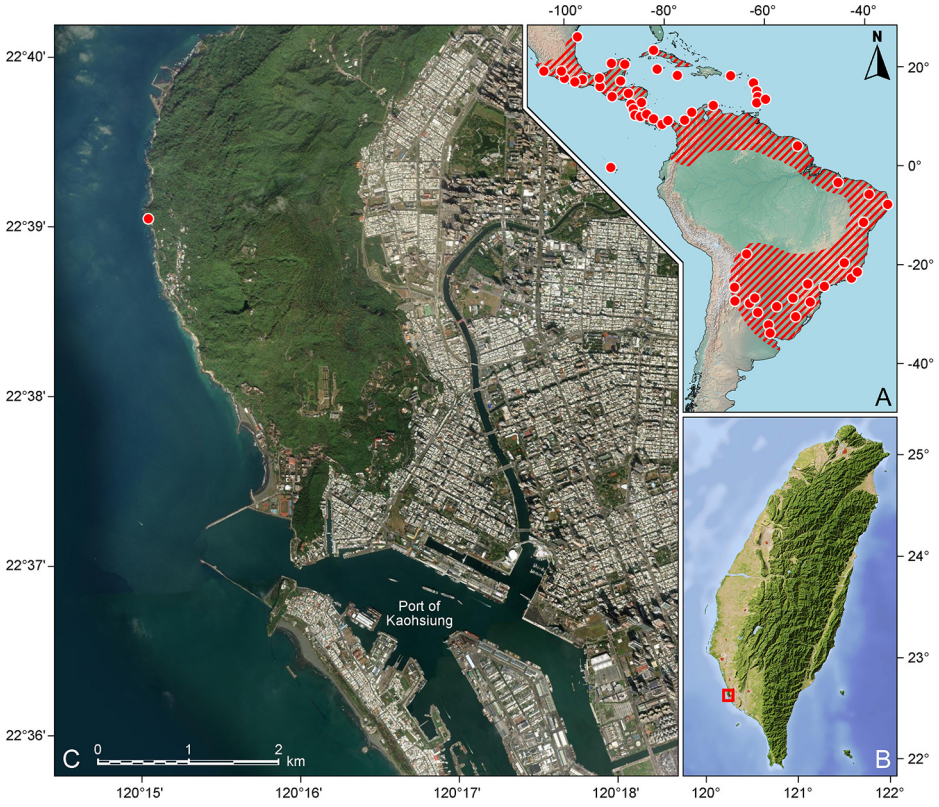

Figure 3. Distribution of *Desmiphora* (*D.*) *hirticollis* (Olivier, 1800). **A.** Native distribution in the Americas; circles indicate published localities, red hatching indicates the estimated geographic distribution. **B.** Regional context map of the main island of Taiwan; the red square indicates the area shown in detail in C. **C.** Satellite image showing the locality of the voucher specimen (red circle) and its environs.

unspecified wood material originating from different Neotropical territories (Anonymous 1944, 1946, 1948, 1979). Its interception by Taiwanese quarantine authorities would be of equally little interest.

The specimen reported here was, however, collected in a natural habitat, specifically in a secondary forest on uplifted coral-reef limestone (Figure 1A). The locality lies about 4 km to the northwest from the Port of Kaohsiung, the largest and busiest international commercial harbour in Taiwan and one of the top container ports in the world (Figure 3B, C). This proximity strongly suggests the arrival of the species via the harbour. It is nevertheless still significant that the specimen was captured at a considerable distance from the harbour, in a natural environment, raising the question whether a population is already established in areas around the harbour.

Considering the wide distribution of the species in the Americas, the primarily subtropical (tropical in the extreme south) climate of the main island of Taiwan is likely suitable for its survival. Although the larval host plants of *D.* (*D.*) *hirticollis* in its native area do not occur in Taiwan, some taxonomically close relatives (even congeners) are common. The host preference of *D.* (*D.*) *hirticollis* does not appear to be particularly restricted. Therefore, it is highly likely that it may be able to develop on a number of tree species that are common in Taiwan. It remains to be confirmed whether the species is already using these plants in southern Taiwan.

Acknowledgements

We acknowledge the Agriculture Bureau of Kaohsiung City Government for permitting our collecting activities within their managed territory. We are grateful to Aranka Grabant (Hungarian Natural History Museum, Budapest) for providing references, to Antonio Santos-Silva (Museu de Zoologia, Universidade de São Paulo) and Tatsuya Niisato (Tokyo) for reviewing our manuscript, and to Juan Pablo Botero Rodriguez (National University of Colombia, Bogotá) for his editorial work.

Additional information

Conflict of interest

The authors declare that no competing interests exist.

Ethical statement
No ethical statement is reported.

Funding
This study was financially supported by the National Science and Technology Council of Taiwan (grant no. 114-2313-B-005-036-) and an Eco Plus! Biodiversity Scholarship awarded by the Taiwan Semiconductor Manufacturing Company, Ltd.

Author contributions
Investigation: MSC, DR. Visualisation – MSC, DR. Writing – original draft: DR. Writing – review and editing: MSC, DR.

Author ORCID iDs
Ming-Shu Chan https://orcid.org/0009-0001-2872-7346
Dávid Rédei https://orcid.org/0000-0003-1550-2110

Data availability
All data that support the findings of this study are available in the main text.

References

Andrade EN (1928) Contribuição para o estudo da Entomologia Florestal Paulista. Boletim de Agricultura 29 (7–8): 446–453.

Anonymous (1944) List of intercepted plant pests, 1943. List of pests recorded during the period July 1, 1942, to June 30, 1943, inclusive, as intercepted in, on, or with plants and plant products entering United States territory. Bureau of Entomology and Plant Quarantine, U.S. Department of Agriculture, Washington, DC, USA, 69 pp.

Anonymous (1946) List of intercepted plant pests, 1945. List of pests recorded during the period July 1, 1944, to June 30, 1945, inclusive, as intercepted in, on, or with plants and plant products entering United States territory. Bureau of Entomology and Plant Quarantine, U.S. Department of Agriculture, Washington, DC, USA, 47 pp.

Anonymous (1948) List of intercepted plant pests, 1947. List of pests recorded during the period July 1, 1946, to June 30, 1947, inclusive, as intercepted in, on, or with plants and plant products entering United States territory. Bureau of Entomology and Plant Quarantine, U.S. Department of Agriculture, Washington, DC, USA, 69 pp.

Anonymous (1979) List of intercepted plant pests. Pests recorded from July 1, 1973, through September 30, 1977. Animal and Plant Health Inspection Service, US Department of Agriculture, Hyattsville, USA, vi + 568 pp.

Breuning S (1974) Révision des Rhodopinini américains (Col. Cerambycidae: Lamiinae). Studia Entomologica 17 (1–4): 1–210.

Chalumeau F, Touroult J (2005) Les longicornes des Petites Antilles (Cerambycidae, Coleoptera). Taxonomie, éthologie, biogéographie. Pensoft, Sofia, Bulgaria, 241 pp., 56 unnumbered pls.

Chemsak JA, Noguera FA (1995) Annotated checklist of the Cerambycidae of the Estación de Biología Chamela, Jalisco, México (Coleoptera), with descriptions of new genera and species. Folia Entomológica Mexicana 89: 55–102.

Chen T-C, Jeng M-L (2023) First record of the amethyst cedar borer, *Semanotus amethystinus* (LeConte) (Coleoptera, Cerambycidae), in Taiwan. Formosan Entomologist 43: 66–70. https://doi.org/10.6662/tesfe.202310_43(2).003

Chou WI (2008) 台灣天牛圖鑒（第二版）[The atlas of Taiwanese Cerambycidae (second edition)]. Owl Publishing House, Taipei, Taiwan, 408 pp. [In Chinese.]

Costa Lima AM (1955) Insetos do Brasil. 9.º Tomo, Capítulo XXIX. Coleópteros, 3.ª Parte. (Série Didática No. 11.) Escola Nacional de Agronomia, Rio de Janeiro, Brazil, 289 pp.

Di Iorio OR, Farina J (2009) Plantas hospedadoras de Cerambycidae (Coleoptera) de la provincia de Buenos Aires, Argentina. Revista del Museo Argentino de Ciencias Naturales, Nueva Serie 11 (1): 77–99.

Feng H-T (2017) 行政院農業委員會動植物防疫檢疫局106年報 [Bureau of Animal and Plant Health Inspection and Quarantine, Council of Agriculture, Executive Yuan, Annual report, year 106]. Bureau of Animal and Plant Health Inspection and Quarantine, Taipei, Taiwan, 76 pp. [In Chinese.]

Gilmour EF (1968) The Coleoptera Cerambycidae of Curaçao, Bonaire and Aruba. Studies on the Fauna of Curaçao and other Caribbean Islands 25 (1): 83–179.

Hovore FT, Penrose RL, Neck RW (1987) The Cerambycidae, or longhorned beetles, of southern Texas: a faunal survey (Coleoptera). Proceedings of the California Academy of Sciences (4th Series) 44 (13): 283–334.

Lingafelter SW (2007) Illustrated key to the longhorned woodboring beetles of the eastern United States. Special Publication No. 3. The Coleopterist Society, New Potomac, USA, 206 pp.

Linsley EG, Chemsak JA (1985) The Cerambycidae of North America. Part VII, no. 1: taxonomy and classification of the subfamily Lamiinae, tribes Parmenini through Acanthoderini. University of California Publications, Entomology, Vol. 102. University of California Press, Berkeley, USA, xi + 258 pp.

Machado VS, Botero JP, Carelli A, Cupello M, Quintino HY, Simões MVP (2012) Host plants of Cerambycidae and Vesperidae (Coleoptera, Chrysomeloidea) from South America. Revista Brasileira de Entomologia 56 (2): 186–198. https://doi.org/10.1590/s0085-56262012005000029

Maes J-M, Berghe E, Dauber D, Audureau A, Nearns E, Skilman F, Heffern D, Monné MA (2010) Catalogo ilustrado de los Cerambycidae (Coleoptera) de Nicaragua. Parte IV – Lamiinae–Disteniinae. Revista Nicaraguense de Entomologia 70 (Suplemento 1), Parte 4: 1–879.

Monné MA (2005) Catalogue of the Cerambycidae (Coleoptera) of the Neotropical Region. Part II. Subfamily Lamiinae. Zootaxa 1023: 1–760. https://doi.org/10.11646/zootaxa.1023.1.1

Monné MA (2024) Catalogue of the Cerambycidae (Coleoptera) of the Neotropical Region. Part II. Subfamily Lamiinae. January 2024. 1343 pp. http://cerambycids.com/catalog/Monne_Jun2024_NeotropicalCat_part_II.pdf. Accessed on: 2026-1-1.

Monné MA, Chaboo CS (2015) Beetles (Coleoptera) of Peru: a survey of the families. Cerambycidae, Disteniidae, Vesperidae. Journal of the Kansas Entomological Society 88 (1): 34–120. https://doi.org/10.2317/jkes1410.13.1

Morvan O, Roguet J-P (2013) Inventaire des Cerambycidae (Coleoptera) de Guyane. II. Lamiinae et Disteniinae. In: Touroult J (Ed.) Contribution à l'étude des coléoptères de Guyane. Tome VII. (Supplément au Bulletin de liaison d'ACOREP-France "Le Coléoptériste".) ACOREP-France, Paris, France, 3–44.

Nakamura S, Makihara H, Saito A (1992) Check-list of longicorn-beetles of Taiwan. Miscellaneous Reports of the Hiwa Museum for Natural History 30: 1–126.

Olivier RS, Santos-Silva A (2025) New species, new synonymy, and new records for Cerambycidae (Coleoptera) from the Brazilian state of Mato Grosso do Sul and Argentina. Annales de la Société Entomologique de France (N.S.) 61 (6): 529–542. https://doi.org/10.1080/00379271.2025.2561704

Quimbayo SD, Bacca T, Taboada-Verona C, Nearns EH, Lanuza-Garay A (2025) On the Colombian longhorned beetles (Coleoptera: Cerambycidae): a new species and new distribution records. Zootaxa 5665 (3): 329–348. https://doi.org/10.11646/zootaxa.5665.3.2

Rice ME, Turnbow RH, Hovore FT (1985) Biological and distributional observations on Cerambycidae from the southwestern United States. Coleopterists' Bulletin 39 (1): 18–24.

Sánchez JAG, Jarquín RL, Romero JN, Figueroa JA de la R (2013) First report of *Desmiphora hirticollis* (Olivier) (Coleoptera: Cerambycidae) on *Wigandia urens* (Ruiz and Pavón) H.B.K. (Hydrophilaceae) in Mexico. Insecta Mundi 299: 1–4.

Tavakilian GL, Néouze G-L (2004) Les Desmiphora Audinet-Serville, 1835, de Guyane; descriptions d'espèces nouvelles (Coleoptera, Cerambycidae, Lamiinae). Coléoptères 10 (5): 49–68.

Vitali F, Rezbanyai-Reser L (2003) Beiträge zur Insektenfauna von Jamaika, Westindien (Karibik). 5. Bockkäfer, Teil II (Folge) (Coleoptera: Cerambycidae). Les Cahiers Magellanes 27: 1–27.

Vogt GB (1949) Notes on Cerambycidae from the lower Rio Grande Valley, Texas (Coleoptera). Pan-Pacific Entomologist 25 (4): 175–184.