

THE LONGHORN BEETLES OF THE TRIBE ASTATHINI
(COLEOPTERA: CERAMBYCIDAE: LAMIINAE) OF MINDANAO
ISLAND, PHILIPPINES

M. N. Medina^{1,2*}, J. Japitan¹⁾, E. Vives³⁾

1) Faculty of Agriculture and Life Sciences, Davao Oriental State University, Mati City, Philippines. *Corresponding author, E-mail: miltonnormanmedina@gmail.com

2) Tropical Genomics Laboratory, URESCOM, Davao Oriental State University, Mati City, Philippines.

3) Sant Antoni, 73, 08221 Terrassa (Barcelona), and Departament d'Artròpodes, Museu de Ciències Naturals de Barcelona, Spain.

Summary. A total of 14 species in five genera (*Bacchisa*, *Eustathes*, *Hispastathes*, *Ochrocesis*, and *Tetraophthalmus*) are recorded from Mindanao, of which nine species are endemic to the island. The record of *T. posticatus* from Mindanao needs confirmation. A key to genera and subgenera known from Mindanao is also provided.

Key words: Cerambycidae, longhorn beetles, fauna, new records, Oriental region.

М. Н. Медина, Дж. Джапитан, Э. Вивес. Жуки-усачи трибы Astathini (Coleoptera: Cerambycidae: Lamiinae) острова Минданао, Филиппины // Дальневосточный энтомолог. 2025. N 525. С. 13-20.

Резюме. Всего на Минданао отмечено 14 видов из пяти родов (*Bacchisa*, *Eustathes*, *Hispastathes*, *Ochrocesis* и *Tetraophthalmus*), из них девять видов являются эндемиками острова. Указание *T. posticatus* с Минданао требует подтверждения. Также приведена определительная таблица родов, известных с Минданао.

INTRODUCTION

The Philippine archipelago is exceptionally rich in biodiversity as it is bisected by the world's major biogeographic boundaries, possessing diverse faunal endemism and high species composition (Heaney & Oliver, 1996). It is considered one of the world's mega-diverse countries (Medina *et al.*, 2023; Matalin, 2023). The country's high biodiversity is also attributed to its tropical biogeographical location, including the isolation of numerous islands that significantly influence the evolution of endemic species, thus contributing to the species distinctiveness in comparison to the rest of the country (Brown & Diesmos, 2009; Vallejo, 2011).

The tribe Astathini Pascoe, 1864 comprises 182 species in 18 genera worldwide distributed (Tavakilian & Chevillolette, 2024). In the Philippines, there are 24 species in five genera

(*Bacchisa*, *Eustathes*, *Hispastathes*, *Ochrocesis*, and *Tetraophthalmus*) majorly distributed in the islands of Luzon and Visayas (Vives, 2015–2024; Roguet, 2024). In the present work, an annotated list of species known from Mindanao Island, along with a key to genera and subgenera are provided.

MATERIAL AND METHODS

The material examined comes from the collections of the first and third authors and the collection from the recent coleopterological expeditions conducted by Davao Oriental State University in the province of Davao Oriental.

Morphological characters were observed under Leica MZ 12.5 stereomicroscope. Habitus images were taken using Canon EOS 6D digital camera equipped with an MP-E 65mm macro lens mounted in StackShot macro rail automated with Helicon Remote version 4.3.0.w. All images were stacked using Helicon Focus version 8.1.1 and processed using licensed Photoshop CS6 Portable software.

AN ANNOTATED LIST OF SPECIES RECORDED FROM MINDANAO ISLAND

Genus *Bacchisa* Pascoe, 1866

Bacchisa (*Cyanastus*) *kraatzii* (Thomson, 1865)

Fig. 1

MATERIAL EXAMINED. **Mindanao Island:** Bukidnon, Calabugao, 22.VII 2003, 3♂, 2♀, E. Vives leg.; Wao, La Nao del Sur, XI 2021, 1♀, local collector; Davao Oriental, Mati City, Cabuaya, 9–10.IV 2024, 1♂, M.Medina, J.Villegas, J.Retardo leg.; Davao de Oro, Maragusan, Mt. Candalaga, 28–29.VI 2023, 1♂, M.Medina, leg.; Misamis Oriental, Gingoog City, Eureka, VI 2023, 1♂, M.Medina, leg.; Davao Oriental, Cateel, 10.VII 2024, 1♀, M.Medina leg.

DISTRIBUTION. Philippines (Visayas: Cebu, Mindanao), Indonesia (Java).

Bacchisa (*Cyanastus*) *puncticollis* (Thomson, 1865)

Fig. 2

MATERIAL EXAMINED. **Mindanao Island.** Holotype – ♀, “*A. puncticollis* Thoms. Type S.P. I. Philipp. Ex-Musaeo James Thompson” in Muséum National d'Histoire Naturelle, Paris.

DISTRIBUTION. Philippines.

REMARK. This species was recorded from Mindanao by Breuning (1956).

Bacchisa (*Bacchisa*) *laevicollis* Breuning, 1956

Fig. 3

MATERIAL EXAMINED. **Mindanao Island:** Surigao del Sur, VII 2009, 2 ♀, local collector.

DISTRIBUTION. Philippines (Luzon, Mindanao).

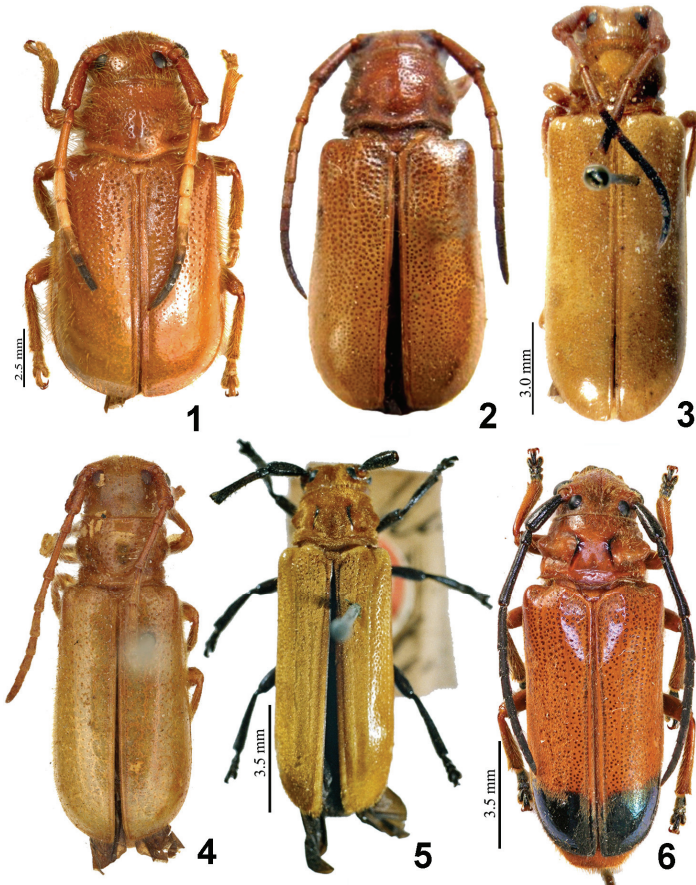
REMARK. The type locality is noted as “Innugan”, a misspelling; it is Imugan, part of Nueva Vizcaya, Cagayan Valley in Luzon. Here, this species is recorded from Mindanao for the first time.

***Bacchisa (Bacchisa) mindanaonis* Breuning, 1959**

Fig. 4

MATERIAL EXAMINED. **Mindanao Island.** Holotype – ♀, “Mindanao, Dapitan, Baker”. Naturhistorisches Museum Basel, Switzerland.

DISTRIBUTION. Philippines (Mindanao) (Breuning, 1959).



Figs 1–6. Body, dorsal view. 1 – *Bacchisa (Cyanastus) kraatzi* (Thomson, 1865); 2 – *B. (Bacchisa) puncticollis* (Thomson, 1865), holotype; 3 – *B. (B.) laevicollis* Breuning, 1956; 4 – *B. (B.) mindanaonis* Breuning, 1959, holotype; 5 – *Eustathes flava* Newman, 1845, holotype; 6 – *E. mindanaonis* Vives, 2009, holotype.

Genus *Eustathes* Newman, 1842

***Eustathes flava* Newman, 1842**

Fig. 5

MATERIAL EXAMINED. Holotype – ♀, Luzon, Manila, “ex coll. Cuming” in Muséum National d'Histoire Naturelle, Paris; **Mindanao Island:** Bukidnon, Calabugao, 20.VII 2003, 2♂, 3♀, E. Vives leg.

DISTRIBUTION. Philippines (Luzon: Manila, Visayas: Negros, Mindanao: Bukidnon), Indonesia (Sulawesi).

***Eustathes mindanaonis* Vives, 2009**

Fig. 6

MATERIAL EXAMINED. Holotype – ♂, Mindanao, Calabugao, Impasung, Bukidnon, 6.IV 2004, E. Cabigas leg. **Mindanao Island:** Bukidnon, 27.IV2003, 1♂, local collector.

DISTRIBUTION. Philippines (Mindanao: Calabugao, Impasung, Bukidnon).

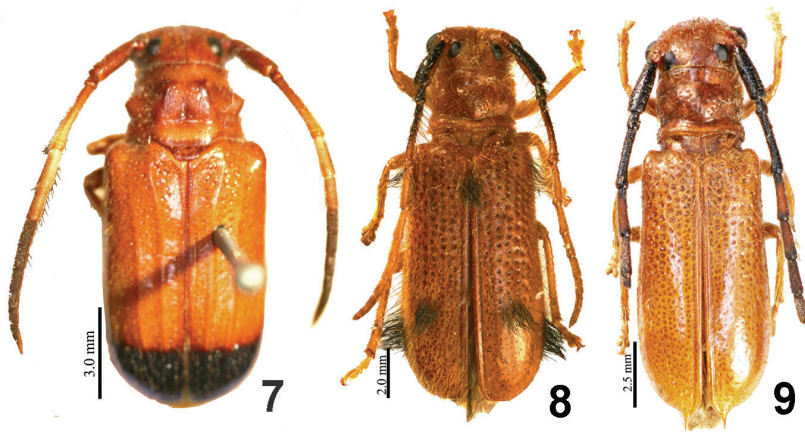
Genus *Hispastathes* Breuning, 1956

***Hispastathes ferruginea* (Aurivillius, 1927)**

Fig. 8

MATERIAL EXAMINED. Syntype – ♀, Mindanao, Butuan, ex-coll. Baker, in Naturhistoriska Riksmuseet, Stockholm, Sweden. **Mindanao Island:** La Nao del Sur, X 2023, 1♂, local collector.

DISTRIBUTION. Philippines (Mindanao).



Figs 7–9. Body, dorsal view. 7 – *Tetraophthalmus* (*Tetraophthalmus*) *posticatus* (Gahan, 1901), syntype; 8 – *Hispastathes ferruginea* (Aurivillius, 1927); 9 – *Ochrocesis filipina* Vives, 2002, holotype.

Genus *Ochrocesis* Pascoe, 1867

***Ochrocesis filipina* Vives, 2022**

Fig. 9

MATERIAL EXAMINED. Holotype – ♂, Mindanao, Davao del Sur, Guimitan, V 2021, local collector.

DISTRIBUTION. Philippines (Mindanao: Guimitan, Davao Del Sur) (Vives, 2022).

Genus *Tetraophtalmus* Dejean, 1835

***Tetraophtalmus (Tetraophtalmus) bigemmatus* (Thomson, 1865)**

Fig. 10

MATERIAL EXAMINED. Holotype – ♀, “Bigemmata Thoms. Type S.C. Mind.” Ex coll. Thomson in Muséum National d'Histoire Naturelle, Paris.

DISTRIBUTION. Philippines (Mindanao).

***Tetraophtalmus (Tetraophtalmus) fasciatus* (Gahan, 1901)**

Fig. 11

MATERIAL EXAMINED. **Mindanao Island:** Impasung-ong, Bukidnon, V 2004, 1♂, E. Cabigas; Surigao del Sur, Bislig, 22.VII 2009, 1♀, 2♂, local collector.

DISTRIBUTION. Philippines.

***Tetraophtalmus (Tetraophtalmus) gemmulus* (Thomson, 1865)**

Fig. 12

MATERIAL EXAMINED. **Mindanao Island:** Surigao del Sur, 22.X 2003, 1♀, local collector; Surigao del Sur, 23.VII 2009, 2♂, 1♀, local collector, EVC.

DISTRIBUTION. Indonesia (Sulawesi), Philippines (Mindanao).

REMARK. It is worth noting that recently *T. gemmulus* was recorded for the first time from the Philippines (Roguet, 2024; Tavakilian & Chevillolette, 2024).

***Tetraophtalmus (Tetraophtalmus) japonicus* Thomson, 1857**

Fig. 13

MATERIAL EXAMINED. Syntype – 1 ♂, Japón ex coll. Thomson in Muséum National d'Histoire Naturelle, Paris. **Mindanao Island:** Davao del Sur, IV 2021, 1♂, local collector; Bukidnon, Impasung, V 2002, 1 ♀, E. Cabigas leg.

DISTRIBUTION. Philippines (Panay, Negros); Japan, India, Himalayas, Malaysia (Labuan, Borneo), Indonesia (Kalimantan).

REMARK. This species is new for the fauna of Philippines.

***Tetraophtalmus (Tetraophtalmus) levis* (Newman, 1842)**

Fig. 15

MATERIAL EXAMINED. Holotype – ♀, *Astathes levis* “Philippines, Luzon” ex coll. H. Cuming, in The Natural History Museum, London. **Mindanao Island:** Surigao del Sur, VII 2010, 1♀, local collector; same locality, 22.VII 2010, 1 ♂, local collector; Bukidnon, 23.IV 2002, 1♀, E. Cabigas leg.; Davao de Oro, Maragusan, Pantukan, VIII 2023, 1♂, M.Medina, leg.; Davao Oriental, Mati City, Cabuaya, 9–10.IV 2024, 1♂, M.Medina, J.Villegas, J.Retardo leg.; Davao Oriental, Lupon, Marayag, 10.VI 2023, 1♀, D.Agbas, G.Obrial leg.; Davao de Oro, Maragusan, Mt. Candalaga, 29–30.VI 2024, 1♀, M.Medina leg.; Mindanao, Misamis Oriental, Gingoog City, Eureka, VI 2023, 1♀, M.Medina, leg.

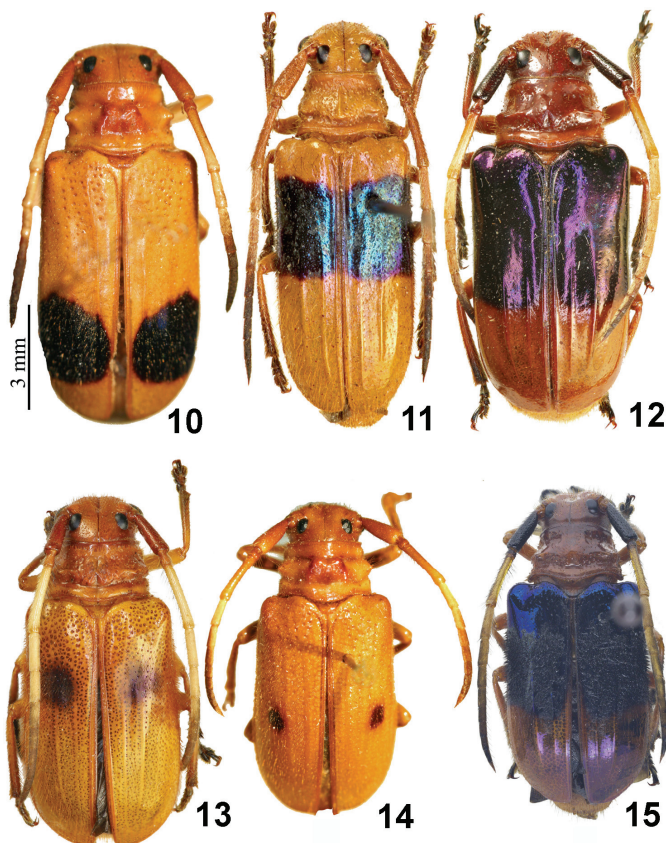
DISTRIBUTION. Philippines (Luzon: Manila, Nueva Ecija; Visayas: Samar; Mindanao: Sumilao, Bukidnon; Mt. Candalaga, Cateel, Davao Oriental), China, Taiwan, Laos, India.

***Tetraophthalmus (Tetraophthalmus) perplexus* (Newman, 1842)**

Fig. 14

MATERIAL EXAMINED. **Mindanao Island:** Surigao delo Sur, V 2010, 1♂, local collector; Impasung, Bukidnon, III 2005, 1♀, E. Cabigas leg.

DISTRIBUTION. Philippines (Luzon: Sierra Madre, Isabela; Mindoro Island, Mindoro: Mt. Halcon, Puerto Gallera; Mindanao).



Figs 10–15. Body, dorsal view. 10 – *Tetraophthalmus (Tetraophthalmus) bigemmatus* (Thomson, 1865), holotype; 11 – *T. (T.) fasciatus* (Gahan, 1901); 12 – *T. (T.) gemmulus* (Gahan, 1901); 13 – *T. (T.) japonicus* Thomson, 1857, syntype; 14 – *T. (T.) perplexus* (Newman, 1842); 15 – *T. (T.) levis* (Newman, 1842), holotype.

***Tetraophthalmus (Tetraophthalmus) posticatus* (Gahan, 1901)**

Fig. 7

MATERIAL EXAMINED. Syntype – 1♀, “Philippine Islands”, ex coll. R. Oberthür, in Muséum National d'Histoire Naturelle, Paris.

DISTRIBUTION. Philippines.

REMARKS. The record of this species from Mindanao needs confirmation.

KEY TO THE GENERA AND SUBGENERA OF ASTATHINI KNOWN FROM MINDANAO ISLAND

- 1 Metasternum prolonged anteriorly in the form of a lobe inserted between the mesocoxae 2
 - Metasternum rounded and not prolonged anteriorly 3
- 2 Body elongated, with antennae fringed with long setae on their inner surface. Pronotum with two discal crests *Eustathes*
 - Body oval and wide. Antennae slightly fringed with long setae. Pronotum without discal crests *Tetraophthalmus*
- 3 Each elytra provided with a sharp apical spine *Ochrocesis*
 - Elytral apex rounded, without spine 4
- 4 Elytra long and narrow, provided with fascicles of long black setae very localized *Hispastathes*
 - Elytra wide in the middle and with slight longitudinal ribs, strongly punctate in their anterior half 5
- 5 Scape as long or shorter than 3rd antennal segment *Bacchisa* (subgen. *Bacchisa*)
 - Scape longer than 3rd antennal segment *Bacchisa* (subgen. *Cyanastus*)

CONCLUSION

Totally 14 species in five genera of the tribe Astathini are recorded from Mindanao, of them nine species are endemic to island. There are four species of the genus *Bacchisa* in this island: *B. mindanaonis*, *B. laevicollis* (also found in Luzon), *B. puncticollis*, and *B. kraatzi*. The number of *Bacchisa* species in Mindanao is higher compared to other Southeast Asian countries like Thailand (1 species), Myanmar and Taiwan (both with 3 species), but lower compared to Laos, Indonesia, and Malaysia (Roguet, 2024; Tavakilian & Chevillolette, 2024). There are two *Eustathes* species in Mindanao, *E. flava* and *E. mindanaonis*. First species is widely distributed in Southeast Asia while second is a Philippine endemic. There are only two species in the genus *Hispastathes*, of them *H. hispoides* is recorded from Malayan Peninsula and Borneo Island, while *H. ferruginea* is endemic to Philippines. In Mindanao the genus *Ochrocesis* is presented by one species, *O. filipina*, endemic to this island (Vives, 2022). The genus *Tetraophthalmus* comprising seven species in Mindanao: *T. bigemmatus*, *T. fasciatus*, *T. gemmulus*, *T. japonicus*, *T. levis*, *T. perplexus*, and *T. posticatus*. Of these, five species are endemic to the Philippines, while the record of *T. posticatus* from Mindanao needs confirmation.

ACKNOWLEDGEMENTS

Our gratitude to our colleagues who help us during the expedition in Mt. Candalaga and in Cateel, Davao Oriental: Nestor “Tatay Bobong” Badilla, Dexter Patalita, Jessa Patalita, John Mark Badilla, Jovil Mamparo, Rinato Concepcion, Neshan Badilla, Erick Pescadero, and Alexander Anichtchenko (Daugavpils University, Latvia), Lessa Vitor, Merlinda T. Espirituoso, Nheñalyn B. Bautista, Christian Lloyd A. Jarencio, Vanessa E. Asaías, Ricksterlie C. Verzosa, and Amy G. Ponce. Special thank is to our colleague and friend late Dr. Analyn Cabras. The third author would especially like to thank those responsible for the collections of the Natural History Museums that he has visited to study the holotypes, specifically Max Barclay (NHML), Harold Labrique (MCL), Azadeh Taghavian-Azari (MNHN), Steven Lingafelter (NMNH), Klaus Klass (SNSD), Johannes Bergsten (NRMS), as well as our colleague Jhonnel Villegas and whole APL-PAMB team.

REFERENCES

- Breuning, S. 1956. *Révision des Astathini. Longicornia* 3. Paul Lechevalier, Paris. P. 417–519, 18 figs.
- Breuning, S. 1959. Neue Lamiiden aus der Sammlung des Museums Frey (Col. Ceramb.) *Entomologische Arbeiten aus dem Museum G. Frey, Tutzing bei München*, 10(1): 171–176.
- Brown, R.M. & Diesmos, A.C. 2009. Philippines, Biology. In: Gillespie, R. & D. Clague (eds.). *Encyclopedia of Islands*. University of California Press, Berkeley.
- Heaney, L. & Oliver, W. 1996. Biodiversity and conservation in the Philippines. *International Zoo News*, 43(5): 329–337.
- Matalin, A.V. 2023. An annotated checklist of the species of the subgenus *Ifasina* Jeannel, 1946, genus *Cylindera* Westwood, 1831 (Coleoptera, Cicindelidae) from the Philippines, with the description of a new species. *Far Eastern Entomologist*, 473: 1–19. DOI: 10.25221/fee.473.1
- Medina, M.N., Cabras, A.A. & Van Dam, M. 2023. Two new species of the genus *Glenea* Newman, 1842 (Coleoptera: Cerambycidae: Lamiinae: Saperdini) from Mindanao and Luzon Islands Philippines. *Zootaxa*, 5284, 177–184. DOI: 10.11646/zootaxa.5284.1.8.
- Roguet, J.-P. 2024. *Lamiaires du Monde. Lamiines of the World*. Available from: Lamiinae.org (accessed 5 November 2024).
- Tavakilian, G.L. & Chevillolette, H. 2024. *Titan : base de donnees internationales sur les Cerambycidae ou Longicones. Version 4.0*. Available from: Titan GBIF (accessed November 25, 2024).
- Vallejo, B. Jr. 2011. The Philippines in Wallacea. In: Telnov, D. (Ed.). *Biodiversity, Biogeography and Nature Conservation in Wallacea and New Guinea. Volum 1*. Entomological Society of Latvia, Riga. 434 pp.
- Vives, E. 2015. Cerambícidos nuevos o interesantes de Filipinas (Part II). (Coleoptera Cerambycidae). *Les Cahiers Magellanes*, 88: 1–25, 18 figs.
- Vives, E. 2015. New or interesting Cerambycidae from the Philippines (Coleoptera, Cerambycidae, Lamiinae) (Part XII). *Boletín de la Sociedad Entomológica Aragonesa*, 56: 49–60, 27 figs.
- Vives, E. 2022. Especies nuevas o interesantes de longicórnios de Filipinas (Pars 23) (Coleoptera, Distenidae, Cerambycidae). *Les Cahiers Magellanes (NS)*, 43: 18–28, 7 figs.
- Vives, E. 2024. Especies nuevas o interesantes de longicornios de Filipinas (Pars 29). (Coleoptera, Distenidae, Cerambycidae). *Lambillionea*, 124(3): 119–126, 12 figs.

© **Far Eastern entomologist (Far East. entomol.)** Journal published since October 1994.

Editor-in-Chief: S.Yu. Storozhenko

Editorial Board: A.S. Lelej, S.A. Belokobylskij, M.G. Ponomarenko, V.A. Mutin, E.A. Beljaev, E.A. Makarchenko, A.V. Gorochoy, T.M. Tiunova, M.Yu. Proshchalykin, S.A. Shabalin, V.M. Loktionov

Address: Federal Scientific Center of the East Asia Terrestrial Biodiversity (former Institute of Biology and Soil Science), Far East Branch of the Russian Academy of Sciences, 690022, Vladivostok-22, Russia.

E-mail: storozhenko@biosoil.ru

web-site: <http://www.biosoil.ru/fee>