

Distribution and Ecologic Notes on *Pachyrhynchus pseudamabilis* Yoshitake 2012 (Coleoptera: Curculionidae: Entiminae)

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Pachyrhynchus pseudamabilis Yoshitake 2012, belongs to the *P. amabilis* species group. This species group is endemic to Mindanao Island. *P. pseudamabilis* is very similar to *P. amabilis* Schultze, 1922, only known from Bukidnon Province (Yoshitake, 2012), being separated from other species in the group by subtle color and endophallus characteristics (Bollino et al. 2018). *P. pseudamabilis* was previously only known from Mt. Apo, North Cotabato. Since the description of *P. pseudamabilis*, no additional distribution records for the species have been documented. Here we present new data on the distribution and ecology of *P. pseudamabilis*, made during recent expeditions conducted by the Coleoptera Research Center in Mindanao and examination of materials in Daugavpils University, Institute of Life Sciences and Technology, Coleopterological Research Center (DUBC) in Latvia.

Pachyrhynchus pseudamabilis Yoshitake 2012

P. pseudamabilis: Yoshitake, 2012: 25 (type locality: "Mount. Apo, S. Mindanao", type in NIAES); Cabras, Nique & Mohagan, 2016: 314; Yoshitake, 2017: 30; Bollino, Sandel & Rukmane, 2017: 193; Rukmane, 2018: 66.

Materials examined: (20 ex.): Philippines / Mindanao / Mt. Parker, South Cotabato / 06.2019 (1); Marilog District, Davao City / 03.2018 (2), 07.2019 (2); Mt. Apo, Kidapawan, South Cotabato / 11.2015 (5); Catigan, Toril / 09.2019 (7); Wao, Lanao del Sur / 04. 2017 (1); Mat-i, Claveria, Misamis Oriental / 07.2018 (2). All in UMCRC. (75 ex.): Philippines / Mindanao, Bukidnon / 09.2013 (1), 11.2014 (3); Cabanglasan / 02.2017 (1); Panamokan / 03.2014 (1), 08.2014 (1); Agusan, Sibagat / 10.2015 (1); Cotabato, Mount. Apo / 02.2014 (2), 06.2014 (2), 07.2014 (1), 08.2014 (4), 09.2014 (1), 11.2014 (3), 12.2014 (1), 05.2015 (3), 01.2016 (2), 02.2016 (1); Mount. Parker / 07.2013 (1), 07.2014 (3), 08.2014 (3); Davao de Oro, New Albay / 08.2017 (2); Davao del Sur, Kapatagan / 10.2015 (1), 05.2016 (3), 06.2016 (3), 07.2016 (1), 08.2016 (2), 10.2016 (6), 03.2017 (6), 08.2017 (1), 09.2017 (1); Mt. Kalatungan / 04.2014 (3), 06.2014 (3), 07.2014 (1), 02.2016 (2), 03.2016 (1); Lanao, Wao / 11.2016 (2), 12.2016 (1); Sarrangani, Kiamba / 10.2016 (1). All in DUBC.

Distribution: Notes on field observations show that specimens were collected at different elevations: 1125m in Marilog District, Davao City; 1126–1215m in Catigan, Toril, Davao City; 1515m in Lake Holon, Mt. Parker, T'boli, South Cotabato. *P. pseudamabilis* was described from 60 specimens from Mt. Apo, North Cotabato (Yoshitake 2012). Since the species description in 2012, no additional distribution record has been published. In our recent collections and examination of additional specimens from DUBC, the distribution of this species is extended to other areas of

Mt. Apo such as in Catigan, Toril in Davao City and Kapatagan, Davao del Sur, the eastern side of Mt. Apo. It appears that the species is widespread in the entire range of Mt. Apo. Additional distribution records expands the range of the species to other areas and mountain ranges such as Marilog District, Davao City (Davao del Sur Province), Lake Holon, Mt. Parker (South Cotabato Province), Wao (Lanao del Sur Province), Mt. Kalatungan (Bukidnon Province), Kiamba, (Sarangani Province), Claveria (Misamis Oriental Province), and New Albay, Maragusan (Davao de Oro Province). *Pachyrhynchus pseudamabilis* remains endemic to Mindanao but appears to be more widespread than originally thought.

Conservation Status: Vulnerable (DENR-DAO, 2019-09); Although in the DENR-DAO, 2019-09 assessment, it was written as "*Pachyrhynchus pseudamabilis*", we believe this is a typographical error and what the authors meant is "*Pachyrhynchus pseudamabilis*".

Ecology: Specimens of *P. pseudamabilis* were mostly collected along trails with semi-open vegetation. In Marilog District and Catigan, Toril, Davao City, the specimens were collected near resorts or farms next to secondary forest. While in Mt. Parker, the specimens were collected along the trail of Lake Holon with intact primary forest. The majority of the specimens were found crawling or copulating on the following plants: *Theobroma cacao* (Malvaceae), *Croton leiophyllus* (Euphorbiaceae), *Piper aduncum* (Piperaceae) and *Lithocarpus boholensis* (Fagaceae). *Theobroma cacao* has been documented to be associated with other Pachyrhynchines such as *Pachyrhynchus moniliferus* whose larvae feeds on its fruit (Kayashima 1940) and *Pantorhytes* spp. who bore on the trunks of cacao causing its eventual demise (Gressitt, 1966). During my visit to the natural history museum of the University of the Philippines, Los Banos, I examined a dozen materials of *Pachyrhynchus reticulatus* which were collected on cacao. It is interesting to note that during our fieldwork in Marilog District, Davao City, several other species of *Pachyrhynchus*, *P. miltoni*, *P. erichsoni*, and *P. sulphureomaculatus* were found on the leaves and bark of *Lithocarpus boholensis* (Fagaceae) either crawling or copulating. Why so many species of *Pachyrhynchus* are found on this tree species remains unclear and should be studied in more detail. Other plants associated with *P. pseudamabilis* are *Medinilla* spp. (Melastomataceae) and fern *Pteridium aquilinum* (Dennstaedtiaceae). Ferns have already been documented to be highly associated with *Pachyrhynchus* species. *Pachyrhynchus apoensis* were mostly collected on fern fronds while *P. confusus* fed on its soft caudex (Schultze, 1923; Cabras & Yoshitake, 2016). Species belonging to *P. amabilis* complex exhibits sympatric association with *P. amabilis* Schultze, 1922 in Marilog and Catigan, Toril, Davao City. The host plant and immature stages of the species remain unknown.

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Figures 1. Habitat and plants associated with *P. pseudamabilis*; A. Marilog District, B. Catigan, Toril, C. *Pteridium aquilinum*, D. *Lithocarpus boholensis*, E. *Theobroma cacao*, F. *Croton leiophyllus*, G. *P. pseudamabilis*, H. Copulating *P. pseudamabilis*.