To the knowledge of *Erythrus philipinus* Vives, 2021, *Xystrocera danilevskii* Vives, 2013 and *Xystrocera festiva* Thomson, 1860 (Coleoptera: Cerambycidae) with new distribution data in the Philippines

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This article includes new data on the distribution of *Erythrus philipinus* Vives, 2021, *Xystrocera danilevskii* Vives, 2013, and *Xystrocera festiva* Thomson, 1860 in the Philippines, as well as first description of the previously unknown female *Erythrus philipinus* and male *Xystrocera danilevskii*. The information in the article substantially complements the knowledge about these incompletely known species.

Key-words: Coleoptera, Cerambycidae, Cerambycinae, Pseudolepturini, Xystrocerini, *Erythrus, Xystrocera*, fauna, taxonomy, Philippines.

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INTRODUCTION

In recent years, Philippine beetles have been intensively studied both at local universities and institutions around the world. Every year, many new species are being discovered and described. A strong group of beetle researchers has been established at the University of Mindanao (Davao, Philippines), whose scientists describe numerous new species of weevils (Curculionidae), long-horned beetles (Cerambycidae), ground-beetles (Carabidae), and other families annually, and publish information on the ecology and biology of these beetles, which is very important for the protection of species. This is evidenced by many publications (Cabras, Medina 2021; Cabras et.al 2021a; Cabras et.al 2021b; Cabras et al. 2020; Cabras, Medina 2020; Cabras 2020; Cabras, Medina 2019; Medina et al. 2020; Medina, Cabras 2019 etc.). Many articles on new beetle species from the Philippines are also published by other world scientists (Anichtchenko, Medina 2019; Bramanti et al. 2020; Bukejs 2019; Hava, 2018; Leitāne, Rukmane-Bārbale 2020; Leitāne, Rukmane 2019; Legalov 2020; Rukmane-Bārbale 2020; Rukmane-Bārbale et al., 2020; Rukmane 2019a, 2019b, 2019c, etc.). Among the highly diverse groups of beetles found in the country one of the most intensively and actively studied in the recent years is Cerambycidae and a many new species in this family coming from the Philippines are described every year (Barševskis, Barševskis 2020; Barševskis 2020; Barševskis, Saulīte 2020; Vives 2013, 2014, 2015a, 2015b, 2020a, 2020b, 2021 etc.).

This article provides information on newly deposited specimenss of three little-known species in the Philippines. Two of these species, *Erythrus philipinus* and *Xystrocera danilevskii*, have recently been described only by holotype (Vives, 2013, 2021). This article provides a description of the female *E. philipinus* and the male *X. danilevskii*, which were previously unknown.

Erythys philipinus, described by Vives (2021) this year, is the first species of this genus known from the Philippine archipelago. Meanwhile, *X. danilevskii*, is a species that has no new published information on its finding after its description. The recently published catalog of the genus *Xystrocera* of the Philippines (Torrejos et al. 2020) did not contain information about new findings of *X. danilevskii* and *X. festiva*.

The purpose of this article is to publish new knowledge about *Erythrus philipinus*, *Xystrocera danilevskii* and *Xystrocera festiva* and its distribution in Philippines.

MATERIALS AND METHODS

The studied material is deposited in the beetles collection of Daugavpils University, Institute of Life Sciences and Technology, Coleopterological Research Centre (DUBC; Ilgas, Daugavpils Distr., Latvia). The laboratory research and measurements have been performed using Nikon AZ 100, Nikon SMZ 745T, Zeiss Stereo Lumar V12 digital stereo microscopes, and NIS-Elements 6D software. The habitus photograph was taken with a digital camera Canon EOS 6D with Canon MP-E65 mm macro lens, using Helicon Focus auto-montage and subsequently was edited with Photoshop. The systematics used in this article is according to Tavakilian, Chavillotte (2021). The literature included in the Syistematic part of this article is for reference only to Philippine fauna.

Abbreviations of collections:

DUBC - Daugavpils University, Coleopterological Research Centre, Ilgas, Daugavpils Distr., Latvia;

EVC - Eduard Vives private collection, Terrasa, Barcelona, Spain;

MNHN - Muséum National d'Histoire Naturelle, Paris, France.

RESULTS AND DISCUSSION

Systematic part

Pseudolepturini Thomson, 1861

Erythrus philipinus Vives, 2021 (Fig. 1)

References: Vives, 2021: 117 Type deposited: EVC Type locality: Philippines, Mindanao island

Material examined: Palawan isl., Roxas, 12.2020. (1 female, local collector leg.). This is the first published information on the discovery of this species after its description and the first record for Palawan Island.

Vives (2021) recently described this species after one male from Mindanao isl., Philippines, collected on 05.2018. Our collection also includes one specimen of this species, a female found on Palawan Island at 12.2020. Below is a brief description of the female of this species.

Description. Female. Body in general black, elongate, narrow. Dorsal surface of elytra and pronotum red. Length: 16.0 mm, maximal width: 4.3mm. Head elongated, flattened, with convex, bilobate eyes. Dorsal surface of head with coarse punctures, irregular wrinkles and sparse tomentum. Medioapical portion between antennal bases elevated, with wide and long keel, and with narrow, long impression. Labrum dark-brown, slightly pubescent, shiny. Clypeus brown, transverse, shiny. Mandibles dark-brown, with sharp apex, massive, elongated, shiny, with dense and coarse punctures, wrinkles and lateral pubescence. Cheeks separated from forehead with a sharp, shiny keel, with sparse pubescence. Antennae black, relatively short, ends at the apical third of elytra, with slightly enlarged antennomeres, which apically with an elongated tooth at the outside (except apical antennomere).



Fig. 1. Erythrus philipinus Vives, 2021 (DUBC)

Pronotum cylindrical, widened in middle. Apical and basal portions neck-shaped narrowed. Middle portion of pronotum with two dark rounded spots, very fine pubescence and fine punctures. Scutellum small, with dark pubescence. Pars stridens forming smooth spot, with very fine transverse microsculpture. Elytra almost parallel-sided, from middle slightly narrowed apically, subcylindrical, with indistinct, slightly raised shoulders hump. Elytra matte, with densand relatively fine punctation and fine sparse pubescence. Dorsal part of each elytron with two smoothed longitudinal ribs. Surface of elytra behind scutellum darkened, with dark ban along suture. Apical margins of each elytron slightly concave, with small, short sharp extension near suture. Elytra at apical third slightly widened. Ventrolateral surface of body with coarse microsculpture and dense pubescence. Legs black, tarsomeres dark-brown, covered with dark pubescence.

The female differ from the male by shorter antennae - in females they end at the apical third of elytra, but in males near the apex of elytra. In females, the apical third of elytra is more enlarged than in males. Both the male Vives (2021) holotype and the female in our collection are 16 mm long, while the largest width of the holotype described in the Vives article is 3.8 mm, and the female described in the article is 4.3 mm wide.

Xystrocerini Blanchard, 1845

Xystrocera danilevskii Vives, 2013 (Fig. 2)

References: Vives, 2013: 62; Torrejos et al. 2020: 40 (Catalogue)

Type deposited: EVC **Type locality:** Philippines, Mindanao island

Material examined: Mindanao isl., Surigao del Sur, San Miguel, 03.2018 (1, male, local collector leg.); Surigao del Sur, Tandag, 05.2020 (1, female, local collector leg.). This is the first published information on the discovery of this species after its description.

Vives (2021) described this species after one female from Surigao del Sur, Mindanao isl., Philippines, collected on 05.2012. Our collection also includes one specimen of this species, a male found on Mindanao isl., at 03.2018. Below is a brief description of the male of this species.

Description. Male. Body in general yellow, with green elytra and lateral portion of pronotum, elongate, narrow. Length: 14.8 mm, maximal width: 3.8 mm. Head yellow, with convex, bilobate eyes. Dorsal surface of head with coarse punctures and transverse wrinkles. Medioapical portion between antennal bases elevated, with very thin elongated middle line. Labrum, clypeus, maxilla yellow, slightly pubescent, shiny. Cheeks separated from forehead with a sharp, shiny keel. Antennae black, relatively long, more longer than elytra. First antennomere apically with an elongated tooth at the outside. Pronotum subcylindrical, widened in middle. Apical and basal portions neck-shaped narrowed. Lateral portion of pronotum with wide green concave band. Pronotal disc uneven, with coarse microsculpture and fine pubescence. The lateral green band separated from the yellow background by a thin impressed line. Scutellum yellow, with sharp apex. Pars stridens visible, forming smooth spot, with very fine transverse microsculpture. Elytra parallel-sided, with indistinct shoulders hump. Elytra with dense, coarse punctation, slightly wrinkled and pubescent. Apical margins of elytra obliquely rounded. Ventrolateral surface of body yellow, with fine pubescence. Legs dichromatic with yellow femora and dark tibia and tarsus. Tarsomeres dark, with brown apical tarsomere, covered with dark pubescence.

The female differs from the male by <u>muchor</u> longer antennae and coloration of pronotum - in females pronotum yellow, but in males yellow, with wide green lateral band. In females, the apical third of elytra is more enlarged than in males.



Fig. 2. Xystrocera danilevskii Vives, 2013 (DUBC)

Xystrocera festiva Thomson, 1860

References: Vives, 2015a: 6; Torrejos et al. 2020: 40 (Catalogue) Type deposited: MNHN Type locality: Indonesia, Java island **Material examined:** Luzon isl., Aurora, Dingalan, 11,2017 (1, local collector leg.); Luzon isl., Cagayan, Sta. Ana, 06.2014 (1, local collector leg.).

This species, which is widespread in the Oriental region, was firstly published to the Philippine fauna by Vives (2015) from the North-Eastern Luzon. Specimens, deposited in DUBC are also from the North-East and East Luzon. Most likely,

this species is more distributed in other parts of Cabras A. A. 2020. Distribution and Ecologic Luzon. Notes on Pachyrhynchus pseudamabilis Yoshitake 2012 (Coleoptera: Curculionidae: Entiminae). Journal of Tropical Coleopterology,

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