

A new species of genus *Agrilus* Curtis, 1825 from the Peruvian seasonally dry forests (Coleoptera: Buprestidae: Agrilinae)

Gino JUÁREZ-NOÉ & Uzbekia GONZÁLEZ-CORONADO

Piura district, post office 20001, Piura Region, Peru
e-mail: norbiol@hotmail.com

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Abstract. A new species of the genus *Agrilus* Curtis, 1825 is described from Peru: *Agrilus (Agrilus) algarrobalis* sp. nov., based on one specimen collected from algarrobal type dry forest, an important area of seasonally dry forest in the Piura region, northwestern Peru.

INTRODUCTION

The genus *Agrilus* Curtis, 1825 is one of the most species-rich genera of Buprestidae, occurs on all the continents around the world except Antarctica, the number of taxa currently known is estimated at just over 4.000 described species (Curletti 2020a). In the Neotropics, the approximate number of species is 1430, with Peru occupying fourth place with 34 species after Brazil (493 species), French Guyana (148 species) and Argentina (107 species) (Curletti 2020a; Hespenheide & Chaboo 2015). The species are particularly rich in arid and semi-arid environments with xeric scrublands and thorny forests, temperate and sub-temperate, mid elevation and high-elevation mountainous environments with coniferous forests (Curletti 2020a).

The northwestern Peruvian seasonally dry forests, one of the most important flora and fauna endemism zones in the world, are recognized as one of the world's most threatened ecosystems and are considered as priority sites and important areas for conservation. The territory of Piura region contains extensive areas of algarrobal type dry forest, overwhelmingly dominated by *Prosopis pallida* (Humb. & Bonpl. ex. Wild.) Kunth (Fabaceae) and are considered as important conservation areas preserving several endemic species of flora and fauna (More et al. 2014).

In this publication we describe *Agrilus (Agrilus) algarrobalis* sp. nov. from northwestern Peruvian seasonally dry forests.

MATERIAL AND METHODS

The study material is derived from a beetles-collecting trip by authors of this manuscript on the campus of the University of Piura, located in the Piura district, in the Piura region, northwestern Peru.

Terminology used for morphological description follows the works of Curletti & Brûlé (2011) and Curletti (2020b). The specimen was examined using a Leica MZ6 (Germany)

stereomicroscope, measurements in millimeters (mm) were taken using a micrometer ocular Hensoldt / Wetzlar - Mess 10 attached to the stereomicroscope. Photographs were taken with a Nikon Coolpix L320 camera of 16.1 mega pixels, while the software used for digital image processing was freeware CombineZM (Hadley 2006).

Type material is deposited in the GJNC - Gino Juárez Noé, Private Collection, Piura Region, Peru. The holotype is provided with a red and white printed labels, red for holotype name and white for collecting data.

TAXONOMY

Agrilus (Agrilus) algarrobalis sp. nov.

(Figs. 1-4)

Type material. Holotype (♀). PERU, Piura region, Piura district, University of Piura, 05°10'11''S, 80°36'51''O, 26 m, 20.I.2014, G. Juárez & U. González leg., (GJNC).

Description of holotype. Body narrow and elongated, black with a bronze reflection, elytra with white pubescence patterns, ventral surface black with a coppery red reflection, legs black with a greenish reflection (Figs. 1-2). Total body length = 4.3 mm.

Head. With a bronze reflection, vertex furrowed with punctiform sculpture, frons with same punctiform sculpture. Small eyes, barely visible from above. Clypeus small separated from frons by transversal carina. Antennae black, short, serrate from antennomere 5.

Thorax. Pronotum widest before middle, with a bronze reflection, transversal striae sculpture, lateral margins rounded, slightly depressed, widely sinuate before posterior angles, which are acute; disc longitudinally furrowed in middle, prehumeral carina absent, marginal and premarginal carinae convergent, joined at base. Prosternum, mesosternum and metasternum densely punctate with sparse white pubescence that become more abundant in proepisternum, metepisternum and posterior angles of metasternum; narrow prosternal process with rounded apex. (Figs. 3-4).

Elytra. With a bronze reflection along outer edges, sculpture oblique, with thin, short and scattered white hairs that become more indicated toward apex; three pairs spots of white pubescence: the first, oblique and lengthened in humeral callus, the second, winged in the middle, more abundant toward suture and the third, rounded with irregular edges at 2/3 of apex; apex rounded and microdentate. Scutellum with transversal carina in the middle.

Legs. Densely punctate, with thin, short and scattered white hairs. Metatarsus shorter than metatibia, with first tarsomere shorter than sum of following two ($1 < 2+3$). Claws bifid.

Abdomen. Ventrites shiny, densely punctate, with thin, short and scattered white hairs, more indicated in ventrites II-IV; laterotergite base with white pubescence (Figs. 3-4).

Male. Unknown.

Differential diagnosis. This new species recalls various *Agrilus* members that are similar in size, color, body form and white pubescence elytral pattern. Among these, *Agrilus (Agrilus)*



Figs. 1-4. *Agrilus (Agrilus) algarrobalis* sp. nov.: 1-2- habitus, dorsal view; 3- habitus, ventral view; 4- habitus, lateral view.

algarrobalis sp. nov. has a close affinity with *Agrilus (Agrilus) grandinatus* Curletti, 2010 from Panama and *Agrilus (Agrilus) coniectum* Curletti, 2020 from Venezuela. It can be separated from both species as follows: small eyes (big eyes in *A. coniectum*), pronotum with median longitudinal sulcus, premarginal carina and lateral margins rounded (without longitudinal sulcus and carina premarginal in *A. grandinatus*; lateral margins parallel in *A. coniectum*), elytra with oblique and lengthened white pubescence in humeral callus and winged white pubescence in the middle more abundant toward suture (rounded in humeral callus and lengthened in the middle in *A. grandinatus*; winged white pubescence more abundant toward outer edges in *A. coniectum*), metepisternum and posterior angles of metasternum with abundant white pubescence (thin, short and scattered white hairs in *A. coniectum*), ventrites without white pubescence at sides (with white pubescence at sides in *A. grandinatus* and *A. coniectum*).

Bionomics. We collected the type material by beating leafs in algarrobal type seasonally dry lowlands forest overwhelmingly dominated by *P. pallida* common called “algarrobo” (Fig. 5).

Etymology. The specific name comes from type forest where was collected the holotype: algarrobal type dry forest.



Fig. 5. Habitat of *Agrilus (Agrilus) algarrobalis* sp. nov.

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