

Short scientific noteSubmitted: May 20th, 2019 - Accepted: November 18th, 2019 - Published: April 15th, 2020**A new species of *Fredlanea* Martins & Galileo, 1996 from Peruvian Andes (Coleoptera: Cerambycidae, Lamiinae, Hemilophini)**Gino JUÁREZ-NOÉ^{1,*}, Uzbekia GONZÁLEZ-CORONADO¹

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Abstract. A new species of genus *Fredlanea* Martins & Galileo, 1996 is described from Peru: *Fredlanea wilderi* **sp. nov.**, based on a specimen collected from the Cuyas cloud forest in Piura region, important mountain rainforest of Peruvian Andes. The new taxon is closely related to *Fredlanea guaranítica* (Lane, 1966) but can be distinguished by presence of yellowish pubescence on proepisterna, mesepimera and metepisterna, and absence of longitudinal strip of yellow pubescence on epipleural margins. A key to Peruvian species of *Fredlanea* Martins & Galileo, 1996 is provided.

Key words: *Fredlanea wilderi*, new species, Peru, Cuyas cloud forest, Piura region.

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Introduction

Cerambycidae Latreille 1802, are one of the largest and most diverse families of Coleoptera. In Peru this family comprises around 870 species grouped in 408 genera, 57 tribes and five subfamilies (Monné & Chaboo 2015). Into subfamily Lamiinae Latreille, 1825, the tribu Hemilophini Thomson, 1868 in neotropic it is currently composed of 128 genera and 555 species (Monné 2018). *Fredlanea* Martins & Galileo, 1996 is a distinctly neotropical genus with 18 species mostly distributed in South America (Colombia, Guyana Francesa, Ecuador, Peru, Bolivia and Paraguay) and with only two species distributed in Central America (Costa Rica and Panama) (Martins & Galileo 2014; Galileo & Santos-Silva 2016; Monné 2018). Considering the new species described here, four species are recorded for Peru, all inhabiting Andean forests (Monné 2018): *Fredlanea calliste* (Bates, 1881), *F. kirschi* (Aurivillius, 1923), *F. flavipennis* (Lane, 1966) and *F. wilderi* **sp. nov.**

The Cuyas cloud forest, located in the Piura region, it is one of the main relicts of mountain rainforest on the western side of the Andes in Peru, and is considered as an important conservation area, preserving several endemic species of flora and fauna (More et al. 2014).

In this contribution we describe *Fredlanea wilderi* **sp. nov.** from Piura region, based on a female specimen collected during a field trip in the Cuyas cloud forest (Fig. 1).

Material and methods

The specimen were examined using a Leica MZ6 (Germany) stereomicroscope, while measurements in milimetres (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. Geographical coordinates of the locality were reported in degrees, minutes and seconds (WGS84 format) using a Garmin etrex 30 GPS.

The studied specimen is deposited at the Entomology Museum of National University of Tumbes, Peru (ME-UNT).

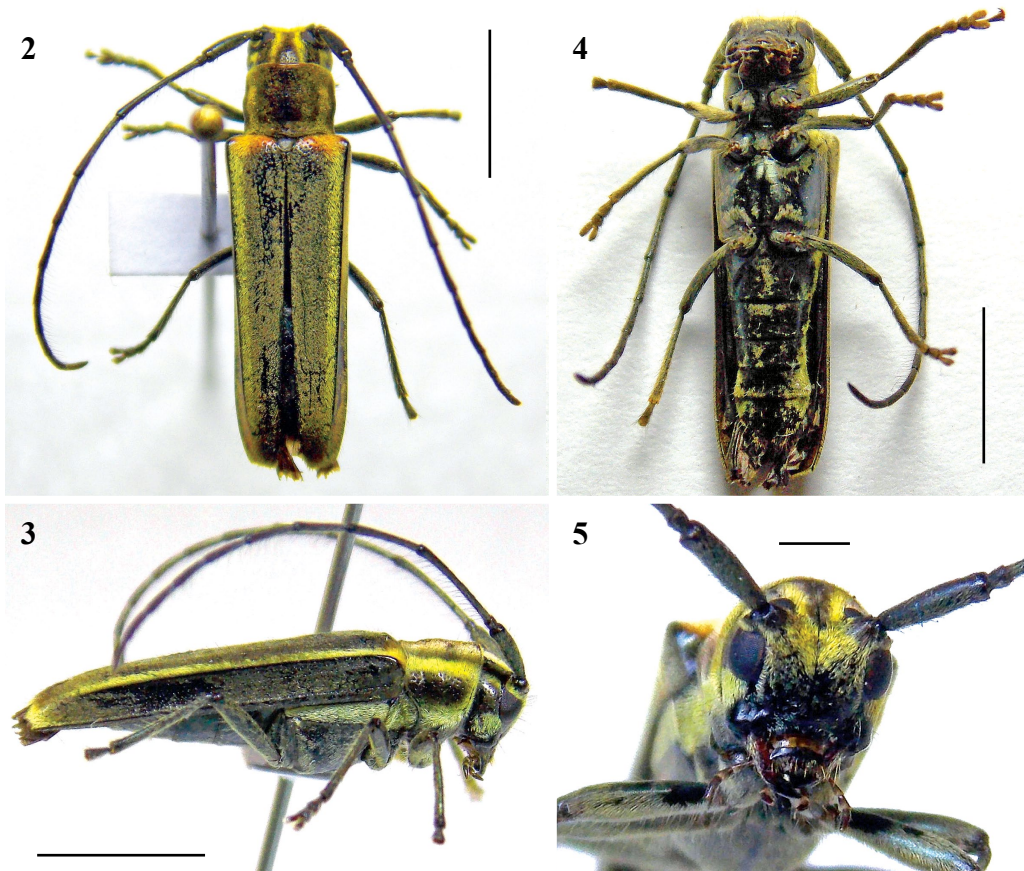
Results

Fredlanea wilderi **sp. nov.** (Figs 2-6)

Diagnosis. *Fredlanea wilderi* **sp. nov.** is similar to *Fredlanea guaranítica* (Lane, 1966), but differs as follows: color black with bluish reflections, longitudinal stripes of yellow pubescence on lateral sides of pronotum, abundant yellow pubescence on proepisterna, mesepimera and metepisterna and absence of longitudinal strip of yellow pubescence on epipleural margins. *F. guaranítica* is black with greenish reflections, with longitudinal strip of yellow pubescence on epipleural margins and absence of yellow pubescence on proepisterna, mesepimera and metepisterna.



Fig. 1 – Cuyas cloud forest, Peru.



Figs 2-5 – *Fredlanea wilderi* sp. nov., holotype ♀ (MEUNT): 2, dorsal view, 3, lateral view; 4, ventral view; 5, head, frontal view. Scale bar = 5 mm (Figs 2-4); = 0.5 mm (Fig. 5).



Fig. 6 – *Fredlanea wilderi* sp. nov., holotype ♀, dorsal habitus.

Description of holotype (♀). Total length (including mandibles) 13 mm; elytral length 10 mm; prothoracic length 2 mm; prothoracic width 2.3 mm; humeral width 3.7 mm. Color black with bluish reflections; mouth parts yellowish-brown in basal area and dark-brown in apical area; distal area of postclypeus and anteclypeus yellowish-brown; head, prothorax and elytra with longitudinal stripes of yellow pubescence; legs and ventral side with short yellow background pubescence, denser laterally on ventrites.

Head. Frons shiny and sparsely punctate slightly denser laterally; gray background pubescence very short and sparse from clypeus to level of inferior side of lower eye lobes; yellowish pubescence short and abundant on space between eyes and antennal tubercles. Vertex moderately punctate, abundant toward antennal tubercles and gradually sparser toward sides. Two longitudinal stripes of yellow pubescence, reaching antennal tubercles and connecting with yellowish inter-ocular pubescence. Long setae between antennal tubercles and frons. Area of connection of eye lobes with short longitudinal strip of yellow pubescence prolonged backwards toward pronotum. Genae with dense yellow pubescence close to eye. Antennal tubercles microsculptured with short dark background pubescence. Dark postclypeal area finely, sparsely punctate with very short grayish pubescence. Antennae almost the same size as body length, reaching elytral apex at half of antennomere XI; ventral side of antennomeres with long setae and grayish background pubescence. Distance between upper eye lobes 0.38 times the length of scape, distance between

lower eye lobes in frontal view 0.83 times the length of scape. Antennal formula based on antennomere III: escape= 0.67; pedicel= 0.2; IV= 0.78; V= 0.57; VI= 0.49; VII= 0.42; VIII = 0.39; IX= 0.35; X = 0.32; XI = 0.31.

Thorax. Prothorax 1.20 times wider than long; lateral sides with large, rounded tubercle starting before middle; basal margin sinuous. Pronotum with large central gibbosity from base to apex, densely punctate with sparse and short grayish background pubescence and long setae toward sides; lateral sides with large, longitudinal stripes of yellow pubescence (those stripes in conjunction with short longitudinal stripes of yellow pubescence of head), abundant yellowish pubescence reaching lateral carina; area between yellow longitudinal strip and yellowish pubescence on lateral carina with fine and short dark background pubescence, slightly conspicuous due to color of integument. Prosternum sparsely punctate. Prosternal process narrow at base, gradually enlarged toward apex. Mesosternum pubescent (yellow or gray background pubescence, depending on different angle of light incidence). Metasternum shiny, sparsely punctate with abundant and short yellow background pubescence (or grayish, depending on different angle of light incidence). Proepisterna, mesepimera and metepisterna with abundant yellow pubescence. Scutellum finely punctate, distinctly bordered in its apical half, with short gray background pubescence (or yellowish, depending on different angle of light incidence). Elytra wider at base and narrower towards apex, with short abundant gray background pubescence (or yellow back-

ground pubescence, depending on different angle of light incidence) from base to apex, densely punctate on basal half, fine in central part and sparse toward apex; small horizontal portion of orange pubescence on each side of scutellum connected with wide longitudinal vertical strip of yellow pubescence, reaching the outer margin but interrupted just before the apex. Humeral carina present, distinctly marked from its basal portion, obliterated just close to the apex; epipleural region densely punctate with abundant and short yellow background pubescence (or gray background pubescence, depending on different angle of light incidence); epipleural carina distinctly marked from its basal portion, obliterated just close to the apex. Apex covered with yellow pubescence and with outer angle slightly projected.

Abdomen. Ventrites I-V with short and abundant yellow background pubescence. All ventrites with long, sparse setae.

Legs. Dorsal and ventral surface with short yellow background pubescence, more abundant on femora and tibia. Metatarsomere I of equal size than II-III together. Red tarsal claws.

Type material. Holotype ♀. **Peru:** Piura region, Ayabaca province, Cuyas cloud forest, 4.36S, 79.42W, 2650 m, 14 Jun 2014, manual collection, G. Juárez & U. González leg, 1 ♀ (MEUNT).

Etymology. We are pleased to name this species in memory of Wilder Rodríguez Arteaga, a great person and excellent biologist, who contributed to the knowledge of biology in the Piura region.

Remarks. *Fredlanea wilderi* **sp. nov.** can be included in the alternative of couplet “10” of the keys to *Fredlanea* species provided by Martins & Galileo (2014) (translated, modified):

- 10 (9) Color black with greenish reflections; longitudinal stripes of yellow pubescence on head, pronotum and epipleural margins, and without yellowish pubescence on proepisterna, mesepimera and metepisterna. Paraguay *Fredlanea guaranítica* (Lane, 1966)
- Color black with bluish reflections; longitudinal stripes of yellow pubescence on head and pronotum, yellowish pubescence on proepisterna, mesepimera and metepisterna, and without longitudinal stripes of yellow pubescence on epipleural margins. Peru *Fredlanea wilderi* **sp. nov.**

Peruvian species of the genus *Fredlanea* can be separated with the following key:

- 1 Pronotum without pubescence spots or longitudinal stripes of pubescence 2
- Pronotum with pubescence spots and/or longitudinal stripes of pubescence 3
- 2 Reddish pronotum, metallic blue elytra covered apically with dense white pubescence. Black antennae with white antennomeres V-VII *Fredlanea kirschi* (Aurivillius, 1923)
- 3 Elytra with orange and black area or elytra uniformly orange 4
- Elytra uniformly black 5
- 4 Elytra with orange area in anterior half and black area in apical half, dense and narrow longitudinal sutural stripes of white pubescence from middle to apex. Head and pronotum with wide and dense longitudinal stripes of white pubescence *Fredlanea calliste* (Bates, 1881)
- Elytra uniformly orange, not pubescent. Pronotum with two pubescence spots *Fredlanea flavipennis* (Lane, 1966)
- 5 Elytra uniformly black with short gray pubescence. Head, pronotum and elytra with longitudinal stripes of yellow pubescence *Fredlanea wilderi* **sp. nov.**

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