

A new species of *Malthonea* Thomson, 1864 (Coleoptera, Cerambycidae, Lamiinae) from Ecuador

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Abstract. *Malthonea keili*, a new species from Ecuador, is described and illustrated. A key to species of *Malthonea* is provided. Photographs of the types of *Malthonea minima*, *Prymnopteryx glaucina*, *Malthonea ruficornis*, and *Ptericoptus guttatus* are provided as an aid to understanding the key (photographs of the types of the last three are provided for the first time).

Key-Words. Desmiphorini; Key; New species; South America; Taxonomy.

INTRODUCTION

Thomson (1864) described the genus *Malthonea* from *M. tigrinata* from Brazil, and included it in the Desmiphorini. Waterhouse (1880) described *Calliphenges* from *C. cuprascens* from Ecuador and considered the genus as belonging to Colobotheini, although he did not do this formally: "This genus should follow *Colobothea*". Breuning (1959) created the genus *Parablabia* for *Ptericoptus guttatus* Kirsch, 1889 and *Malthonea ruficornis* Belon, 1903. Breuning (1963) considered *Malthonea* as a subgenus of *Blabia* Thomson, 1864. Martins & Galileo (1995a) considered *Malthonea* and *Blabia* as distinct genera. Martins & Galileo (1995b) revised *Malthonea* and suggested that *Parablabia* could be its synonym. Galileo & Martins (1996) considered *Parablabia* as a junior synonym of *Malthonea*. Nearns & Tavakilian (2012) transferred *Calliphenges cuprascens* to *Malthonea*. Currently, *Malthonea* includes 16 species distributed from Central to South America, with six species recorded from Ecuador (Monné, 2017).

The new species proposed in this work was collected by beating roadside bamboo along the gradient between 2,606 meters and 2,300 meters elevation in secondary western-slope cloud forest of the northern Andes of Ecuador, where forest remains primarily in areas too steep for agriculture. Much of route 20 runs along the side of a steeply sloped canyon and thus is fairly forested. A bamboo species similar to *Chusquea scandens* Kunth from the opposite slope but as yet not identified, from which the holotype was collected, grows in many locations along the highway. The third

author has collected extensively in that area, which has yielded a considerable number of new Coleoptera species. That habitat has not received extensive collection effort previously.

MATERIAL AND METHODS

Photographs were taken with a Canon EOS Rebel T3i DSLR camera, Canon MP-E 65 mm f/2.8 1-5X macro lens, controlled by Zerene Stacker AutoMontage software. Measurements were taken in 'mm' using an ocular micrometer Hensoldt/Wetzlar – Mess 10 in a Leica MZ6 stereomicroscope.

The loan of specimens for this study was authorized by the Museum of Zoology – Invertebrate Section, Pontifical Catholic University of Ecuador, Quito, Ecuador (QCAZ). The permit number for this collection is 002-16-IC-FAU-DNB/MA, issued by the Ministerio de Ambiente. Other acronyms used along the text are as follows: **DZUP** – Coleção de Entomologia Padre Jesus Santiago Moure, Departamento de Zoologia, Universidade Federal do Paraná, Curitiba, Paraná, Brazil; **SMTD** – Staatliches Museum für Tierkunde, Dresden, Germany; **USNM** – National Museum of Natural History, Washington, D.C., USA.

Malthonea keili, sp. nov. (Figs. 1-4)

Description: Female: Integument nearly entirely black; parts of pro- and mesocoxae and

pro- and mesotrochanters reddish; tarsal claws reddish. Pubescence mostly yellowish white (more grayish white depending on angle of light source).

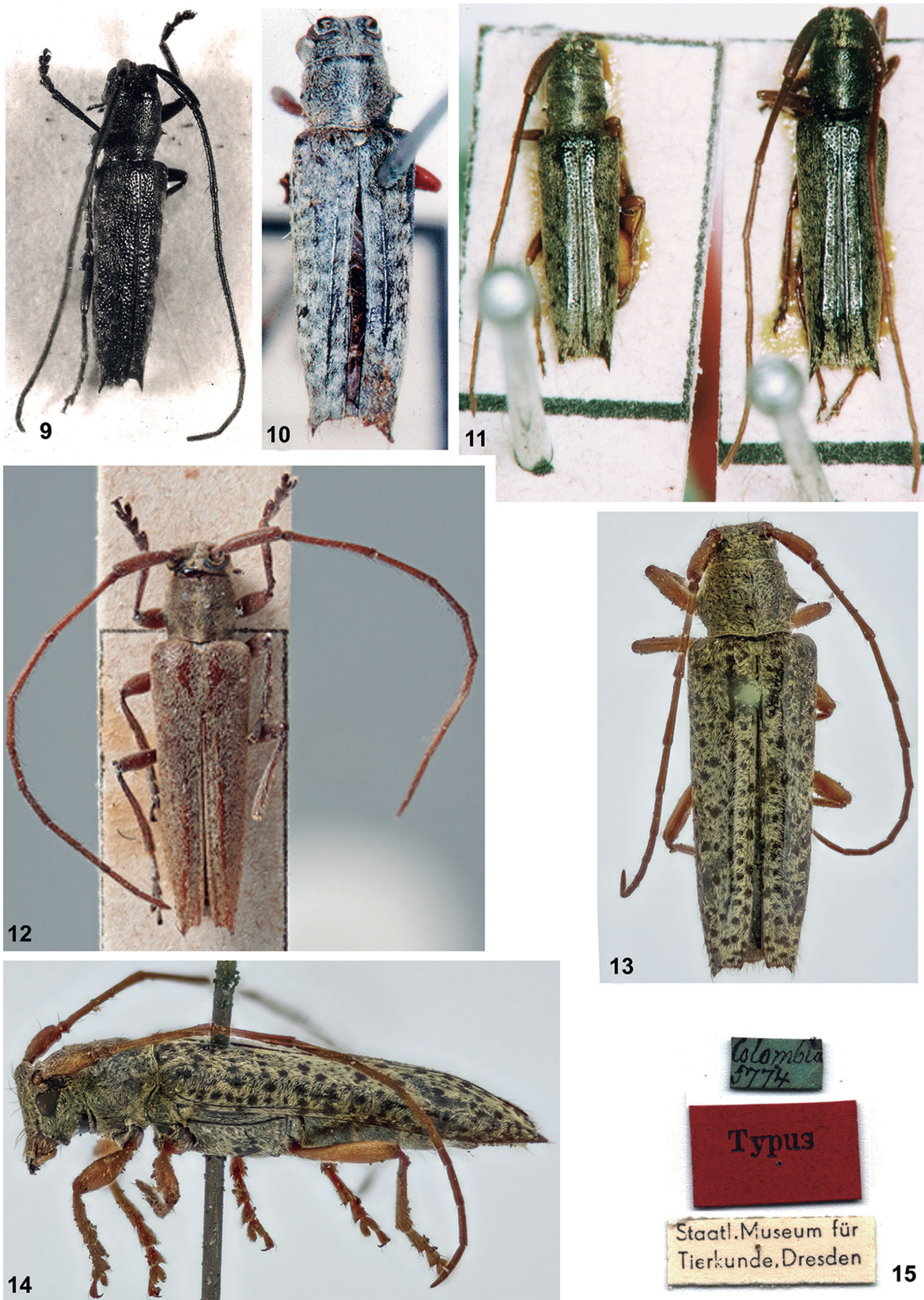
Head: Frons transverse, finely, moderately abundantly punctate; pubescence partially obscuring integument. Vertex finely, more sparsely punctate than on frons;



Figures 1-8. (1-4) *Malthonea keili* sp. nov. (1-4) holotype female: (1) dorsal habitus; (2) ventral habitus; (3) lateral habitus; (4) head, frontal view. (5, 7-8) *Malthonea minima* Martins & Galileo, 1995, paratype female (?): (5) head, frontal view; (7) dorsal habitus; (8) ventral habitus. (6) *Malthonea cuprascens* (Waterhouse, 1880), holotype, measuring points of the length of the elytral spine (adapted from Nearn & Tavakilian, 2012).

pubescence denser centrally, except glabrous, narrow area along median groove, between antennal tubercles and middle of area between eyes and prothorax;

remaining surface with brownishyellow pubescence exposing integument. Median groove distinct from middle of frons to prothoracic margin. Area behind



Figures 9-15. (9) *Malthonea minima* Martins & Galileo, 1995, holotype male, dorsal view (scanning of the photograph submitted to publication – former personal collection of Ubirajara R. Martins). (10) *Prynnoptetyx glaucina* Thomson, 1868, holotype, dorsal view. (11) syntypes of *Malthonea ruficornis* Belon, 1903, dorsal view (by Jesus Santiago Moure); (12) *Blabia aurescens* Breuning, 1966, holotype, dorsal view (by Eugenio Nearn; also available at <http://cerambycids.com/longicornid/default.asp?a=home>); (13-15) holotype of *Ptericoptus guttatus* Kirsch, 1889 (by Olaf Jaeger): (13) dorsal habitus; (14) lateral habitus; (15) labels.

eyes finely, sparsely punctate behind upper eye lobe, gradually with more abundant punctures toward lower eye lobe; pubescence less abundant exposing integument toward vertex, denser toward apex of upper eye lobe, then sparser toward gena. Gena with sculpturing and pubescence as on frons, except smooth, glabrous distal area. Antennal tubercles, in frontal view, moderately elevated, their inner margins V-shaped; basally with sculpturing and pubescence as on frons, gradually finer, sparsely punctate and sparser pubescent toward apex. Labrum almost coplanar with anteclypeus on basal half, inclined on distal half, with long, erect, moderately sparse yellowish setae and fringe of yellow setae at distal margin. Gulamentum smooth, glabrous except for sparse pubescence close to mentum. Distance between upper eye lobes 0.49 times length of scape; in frontal view, distance between lower eye lobes 0.42 times length of scape. Antennae 1.7 times elytral length, reaching elytral apex at distal third of antennomere VIII; scape cylindrical, with sparse pubescence, interspersed with sparse, long, erect dark setae ventrally; pedicel and antennomeres III-VII with long, erect, sparse dark setae ventrally; antennal formula (ratio) based on length of antennomere III: scape = 0.86; pedicel = 0.12; IV = 0.88; V = 0.60; VI = 0.56; VII = 0.50; VIII = 0.46; IX = 0.42; X = 0.40; XI = 0.44.

Thorax: Prothorax slightly wider than long (1.1 times), including lateral tubercles; lateral tubercles small, spiniform, placed at middle. Pronotum raised from apex of basal third, moderately coarsely, abundantly punctate; pubescence partially obscuring integument on basal half centrally and laterally on distal half, sparser on distal half between central and lateral areas. Sides of prothorax with sculpturing and pubescence as on pronotum. Prosternum finely, moderately sparsely punctate; pubescence not obscuring integument. Mesoventrite coarsely punctate; pubescence not obscuring integument. Mesanepisternum, mesepimeron and metanepisternum with pubescence nearly obscuring integument. Metaventrite finely, sparsely punctate laterally; pubescence partially obscuring integument laterally, gradually sparser toward center. Scutellum with pubescence partially obscuring integument.

Elytra: Not longitudinally carinate, moderately coarsely, abundantly punctate on basal half, gradually finer, sparser toward apex; pubescence not obscuring integument interspersed with a few short, erect dark setae dorsally (especially on distal third), and long, erect dark setae laterally on distal fifth; apex truncate, with long spine at outer angle (twice length of pedicel, 0.25 times pronotal length).

Legs: Pro- and mesofemora subfusiform, metafemora more elongate, with pubescence not obscuring integument. Metatarsomere I about as long as II-III together.

Abdomen: Ventrites finely, sparsely punctate laterally (punctures nearly indistinct due pubescence); pubes-

cence partially obscuring integument; distal margin of ventrite V truncate.

Dimensions (mm): Total length, 6.0; prothoracic length, 1.0; basal prothoracic width, 0.9; distal prothoracic width, 1.0; largest prothoracic width, 1.1; humeral width, 1.3; elytral length, 4.4.

Type material: Holotype female from ECUADOR, *Pichincha*: Route 20 (between 24 and 30.5 km from intersection with Route 35), 26.XI.2016, J. McClarin col. (QCAZ).

Etymology: Named for Clifford Keil (QCAZ) to recognize his contribution for sending specimens collected by the third author to be identified in the Museum of Zoology, University of São Paulo, Brazil.

Remarks: *Malthonea keili* sp. nov. is similar to *M. minima* Martins & Galileo, 1995, but differs as follows: prothorax shorter (Fig. 1); elytra sparsely punctate distally (Fig. 2); elytra without brownish maculae laterally (Fig. 1). In *M. minima*, the prothorax is more elongate (Fig. 7), the distal area of the elytra is denser punctate (Fig. 8), and the elytra have brownish maculae. According to Martins & Galileo's (1995b) description of the elytra of *M. minima* (translated): "Elytra with whitish pubescence, denser laterally, interspersed with brownish pubescent maculae (about seven along margin)." The brownish maculae are not present in the paratype of *M. minima* (Fig. 7).

Key to species of *Malthonea* (adapted from Galileo & Martins, 1996)

1. Elytral spine as long or almost as long as half of pronotal length (see Fig. 6 for measurement) 2
- Elytral spine distinctly shorter than half of pronotal length (see Fig. 6 for measurement) 3
- 2(1). Integument shining, metallic. Ecuador, Peru
..... *M. cuprascens* (Waterhouse, 1880)
- Integument mostly reddish brown, not metallic. Colombia
..... *M. spinosa* Galileo & Martins, 1999
- 3(1). Mesoventral process without tubercle 4
- Mesoventral process with tubercle 12
- 4(3). Elytra with uniform yellowish pubescence 5
- Elytra with dark pubescent maculae or interspersed with glabrous areas 9
- 5(4). Lower eye lobes almost as long as twice length of gena. Ecuador (Fig. 12) *M. aurescens* (Breuning, 1966)
- Lower eye lobes, at most, as long as gena 6
- 6(5). Prothorax wider than long. Colombia
..... *M. mimula* Martins & Galileo, 1995
- Prothorax, at least, as long as wide 7
- 7(6). Prothorax with small, but very distinct spine laterally. Ecuador, Bolivia (Fig. 11) *M. ruficornis* Belon, 1903
- Prothorax with minute spine laterally 8
- 8(7). Elytral carina distinct from basal fifth. Costa Rica, Panama
..... *M. piraiuba* Martins & Galileo, 2009

- Elytral carina distinct from basal fourth. Venezuela
.....*M. itaiuba* Martins & Galileo, 1999
- 9(4). Pronotum with two longitudinal dark bands. Brazil (Bahia, Minas Gerais, Espírito Santo, Rio de Janeiro, São Paulo, Paraná, Santa Catarina, Rio Grande do Sul), Argentina (Misiones)
.....*M. tigrinata* Thomson, 1864
- Pronotum without longitudinal dark bands 10
- 10(9). Elytra with abundant and small, circular glabrous areas. Ecuador, Colombia (Figs. 13-15)*M. guttata* (Kirsch, 1889)
- Elytra without contrasting glabrous areas 11
- 11(10). Prothorax slight wider than long; elytral punctation finer and sparser (Fig. 2). Ecuador (Figs. 1-4)*M. keili* sp. nov.
- Prothorax slight longer than wide; elytral punctation coarser and denser (Fig. 7). Peru (Figs. 5, 7-8) *M. minima* Martins & Galileo, 1995
- 12(3). Elytral apex with spicule at outer angle. Venezuela
.....*M. cubica* Galileo & Martins, 1996
- Elytral apex with long spine at outer angle 13
- 13(12). Elytra with dense yellow pubescence interspersed with moderately abundant and large dark maculae. Colombia, Venezuela
.....*M. panthera* Martins & Galileo, 1995
- Elytra without dense yellow pubescence interspersed with large dark maculae 14
- 14(13). Elytra with moderately dense grayish yellow pubescence marbled with brown. Venezuela, Ecuador *M. glaucina* (Thomson, 1868)
- Elytra with different pubescence pattern 15
- 15(14). In frontal view, distance between lateral margins of genae wider than distance between outer side of eyes; elytral spine as long as pedicel. Ecuador*M. phantasma* Martins & Galileo, 1995
- In frontal view, distance between lateral margins of genae about as wide as distance between outer side eyes; elytral spine distinctly longer than pedicel 16
- 16(15). Femora dark. Peru*M. obyuna* Martins & Galileo, 2005
- Femora reddish. Bolivia *M. albomaculata* (Breuning, 1966)

Notes:

1. Although Breuning (1974) did not mention this explicitly, his figure 23 (*Parablabia ruficornis*) is one of the syntypes of this species;
2. According to Belon's (1903) description of *Malthonea ruficornis* (translated): "At first glance, the Bolivian species resembles so much, either by its pubescence or by more details of the structure, *Ptericoptus guttatus* Kirsch (*Abhandl. Zool. Mus., Dresd.*, 1888-89, n° 4, p. 40, pl. 4, fig. 75) ..." Actually, *M. ruficornis* and *M. guttata* are so different that the statement makes no sense (even in the drawing published by Kirsch, 1889).
3. According to Martins & Galileo's (2005) description of *M. piraiuba* (translated): "It separates... from *M. mimula* by the lateral thorns of the prothorax and from *M. ruficornis* by the presence of a longitudinal carinae in the elytra." However, *M. ruficornis* has distinct carina on the elytra, as shown in Fig. 11. Actually, *M. piraiuba* differs from *M. ruficornis* by the small lateral tubercle of the prothorax, which is longer and very distinct in *M. ruficornis*, and by the notably slender scape.

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