

NEW SPECIES OF *AGRILUS* FROM NICARAGUA
AND COSTA RICA
(Coleoptera, Buprestidae)

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METHODS

The relative uniformity of the species occurring in the genus *Agrilus* Curtis, 1825 and the exorbitant number of species represented (over 1,200 for the Neotropical fauna alone), puts in serious difficulty the specialist who wishes, with a simple literal description, to describe unknown taxa. A directory of almost equal characters, as seen in the past, does not allow for the focus of the morphological characters that characterize a single species. Fortunately, there exists the modern color photograph, which is more useful than any literary description. The present contribution is based on this fact. The traditional description, following the criteria of the ICZN, is limited to the characters considered essential for the identification of the species, leaving the rest to the photographic images. The adoption of this method is proposed to describe efficaciously the enormous number of species that remain to be discovered.

The studies of the Costarican *Agrilus* have not progressed since Fisher's (1929, 1938) and Obenberger's (1933, 1935) descriptions, with the exception of Hespeneide (1974) with a note regarding a replacement name. The studies on this genus are better for the Nicaraguan *Agrilus*, where there are recent contributions made by Westcott & Hespeneide (2006) and Curletti (2010).

ACRONYMS. CHAH: Henry Hespeneide collection, Los Angeles, U.S.A.; CMNG: Manfred Niehuis collection, Albersweiler, Germany; INBIO: Institute National Biodiversity, Heredia, Costa Rica; MCCI: Museo Civico di Storia Naturale di Carmagnola, Italy; MELN: Entomological Museum of Colon, Nicaragua.

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***Agrilus barriesi* n. sp. (fig. 1)**

MATERIAL EXAMINED. Holotype ♀: Costa Rica, prov. Guanacaste, Finca Nueva Zelandia and env., 300-600 m, 10°49-52'N, 85°24-28'E. 19-24.V.2007, Barries & Cate leg. (INBIO).

DESCRIPTION OF THE HOLOTYPE. Length 11.5 mm. Dorsal color dark green, more evident at the apex; ventral color black, frons furrowed with a white longitudinal spot in the furrow, at the base. Pronotum with a white spot in the anterior angles. Premarginal carinula entire. Scutellum transversely carinate. Elytra glabrous, elongate and caudate. Apex hardly serrated. Lateroterga and sterna practically glabrous. Legs with all claws bifid, but with internal nail shorter and thickened. Metatarsus as long as metatibia; first metatarsomere as long as the sum of the following four.

ETYMOLOGY. After the name of one of the collectors: Wolfgang Barries.

REMARKS. For the color, absence of elytral pubescence, spots on pronotum, elytra caudiform, *A. barriesi* n. sp. is reminiscent of *A. caesareus* Obenberger, 1933 described from Brazil. The latter differs principally for having the apex more caudate, lateroterga and ventrites spotted.

***Agrilus maesi* n. sp. (fig. 2)**

MATERIAL EXAMINED. Holotype ♀: Nicaragua, Rivas, Escamequita, Las Palmas, 24.IV.2009, J.M. Maes leg. (MCCI). Paratype ♀: Costa Rica, Prov. Guanacaste, Finca Nueva Zelandia and env., 300-600 m, 10°49-52'N 85° 24-28'E, 19-24.V.2007, Barries and Cate leg. (INBIO).

DESCRIPTION OF THE HOLOTYPE. Length 7.5 mm. Color: frons green, vertex, pronotum and scutellum metallic gold, elytra dark red with apex green, ventral side and legs green. 2 pairs of white pubescent spots on elytra, the first before the middle and the second at $\frac{3}{4}$. Same spots at the first lateroterga and at the sides of the antepenultimate visible ventrite. Premarginal carina not entire. Antennae serrate from antennomere 4. Vertex longitudinally furrowed in middle. Disc of pronotum with wide depression before the scutellum. Anterior margin of prosternal lobe sinuate. Scutellum transversely carinate. Apex of elytra rounded and micro-denticulate. All claws mucronate. Metatarsus shorter than metatibia; first metatarsomere as long as the sum of the following two.

DESCRIPTION OF THE PARATYPE. Length 7.4 mm. It differs for the blue-green elytral apex and the pronotum with green reflections.

ETYMOLOGY. After the name of the collector of the Nicaraguan specimen: Jean-Michel Maes, curator of the Natural History Museum of Colon.



Figs 1-7 – *Agrilus barriesi* n. sp., holotype (1); *A. maesi* n. sp., holotype (2); *A. ursus* n. sp., holotype (3); *A. tyrannus* n. sp., holotype (4), aedeagus, 1.35 mm (6); *A. pumilio* n. sp., holotype (5), aedeagus, 0,6 mm (7).

REMARKS. *A. maesi* n. sp. is unmistakable among Neotropical *Agrilus* fauna for having a gold pronotum and the elytra dark-red with four pubescent spots.

Agrilus ursus n. sp. (fig. 3)

MATERIAL EXAMINED. Holotype ♀: Nicaragua, Granada, Domitila, 55 m, UTM 16P - 0614035 - 1294527. V.2009, J.M. Maes leg. (MCCI). Paratype ♀, idem (MELN).

DESCRIPTION OF THE HOLOTYPE. Length 7.8 mm. Body stumpy. Entirely steel-grey. Vertex and frons furrowed, forming a rounded crest along the eyes. Antennae brief, joining the half of pronotum only, serrate from antennomere 4, with the apical antennomeres very transverse, as in the Afrotropical subgenus *Duttus* Curletti, 1993. Premarginal carina not entire. Anterior margin of prosternal lobe rounded. Prosternal plate large, forming at the apex a rough rhombus. Elytral pubescence forming serial markings as in fig. 3. Ventral sides uniformly pubescent. Legs with all claws mucronate. Metatarsus shorter than metatibia, with first metatarsomere less long than the sum of the following three.

DESCRIPTION OF THE PARATYPE. Length 7.3 mm. The frons have three white pruinose pubescent spots: two transverse joining the eyes respectively in the middle and at the base, the third rounded, in central position between the transversal ones. These frontal spots are less evident and not pruinose as in the holotype.

ETYMOLOGY. After the robust body and the thick pubescence.

REMARKS. *A. ursus* n. sp. may be confused with *A. diversus* Waterhouse, 1889 from Guatemala. The latter differs for having different form of pubescence on the elytra, a glabrous thorax, a short, obtuse tooth on the apex.

Agrilus tyrannus n. sp. (fig. 4)

MATERIAL EXAMINED. Holotype ♂ : Nicaragua, Rio San Juan, refugio Bertola, V. 2009, 40 m, 10N58.391 - 84W20.318, J.M. Maes leg. (MCCI).

DESCRIPTION OF THE HOLOTYPE. Length 7.6 mm. Head green, pronotum red, scutellum and elytra black, abdomen grey. Vertex and frons fur-

rowed, forming a rounded crest along the eyes as in *A. ursus* n. sp. Antennae short, black, not arriving to the half length of the pronotum, serrate from article 4. Pronotum very depressed to the lateral sides, where there is yellow pubescence. Similar pubescence in the middle, before the scutellum. Prehumeral carinula entire, barely visible as it is very close to the lateral margin. Scutellum transversely carinate. Elytra glabrous, with apices rounded and microdenticulate. Lateroterga uniformly covered with yellow pubescence. Thorax and abdomen glabrous with the exception of a longitudinal line of white pubescence in middle of the basal ventrite. Metatarsus shorter than metatibia; first metatarsomere as long as the sum of the following three.

Aedeagus club-shaped with median lobe rounded, as in fig. 6.

ETYMOLOGY. After the red pronotum, similar to a regal cloak.

REMARKS. There are several Neotropical species characterized by having a red pronotum with yellow pubescence and black elytra, but none have frons furrowed as *A. tyrannus* n. sp. The most similar species are *A. sesostris* Fisher, 1929 described from Costa Rica and *A. vixtocio-atlae* Fisher, 1938 from México. The first differs for having perisutural white pubescence on elytra, the second for the absence of pubescence in the middle of the pronotum.

***Agrilus p u m i l i o* n. sp. (fig. 5)**

MATERIAL EXAMINED. Holotype ♂: Nicaragua, Dept. Rivas, Rancho Santana, 15.III. 2003, Eric van den Berghe leg. (MCCI); 9 ♂, idem, 1.II. 2003; 3 ♂, Costa Rica, S. Cañas, 9-14.II.1989, F.D. Parker leg.; 2 ♂, Costa Rica, 80 km N de Liberia, P.N. Guanacaste, VI-II.1991, R. Espinoza leg. (MCCI, MELN, CHAH, CM NG).

DESCRIPTION OF THE HOLOTYPE. Length 3.4 mm. Entirely metallic bronze. Head and elytra uniformly covered by white-brown pubescence, denser on the frons. Premarginal carinula long but not entire. Ventral side and lateroterga uniformly pubescent, but less densely than the dorsal side. Legs with all claws mucronate. Metatarsus scarcely shorter than metatibia. First metatarsomere less long than the sum of the following two. Aedeagus sclerotized, with median lobe obtuse (fig. 7).

DESCRIPTION OF THE PARATYPES. From 3.3 to 3.6 mm. No differences with the holotype are observed.

ETYMOLOGY. After the small dimension: in Latin “*pūmīliō*” meaning “small, dwarf”.

REMARKS. For the dimension and the uniform pubescence on the elytra, *A. pumilio* n. sp. is similar to *A. chamelae* Hespenseide, 1988 and *A. sanchezae* Hespenseide, 1988 from Mexico. Both differ for having the anterior margin of pronotum more advanced in the middle, before the eyes. In detail, the first is black in color and has two spots on the sides of the pronotum, the second has the pronotum very gibbous. The female of *A. pumilio* n. sp. is unknown.

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RIASSUNTO

Nuove specie di Agrilus di Nicaragua e Costa Rica (Coleoptera, Buprestidae).

Sono descritte cinque nuove specie di *Agrilus* Curtis, 1825 del Nicaragua e Costa Rica: *A. barriesi* n. sp., *A. maesi* n. sp., *A. ursus* n. sp., *A. tyrannus* n. sp. e *A. pumilio* n. sp.

SUMMARY

Five new species of the genus *Agrilus* Curtis, 1825 from Costa Rica and Nicaragua are described: *A. barriesi* n. sp., *A. maesi* n. sp., *A. ursus* n. sp., *A. tyrannus* n. sp. and *A. pumilio* n. sp.

REFERENCES

- CURLETTI, G. 2010. New species of the genus *Agrilus* Curtis, 1825, from Nicaragua and Panamá (Coleoptera: Buprestidae: Agrilinae). *Zootaxa* 2333: 59-68.
- FISHER, W. S. 1929. New species of buprestid beetles from Costa Rica. *Proceedings of the United States National Museum (Number 2803)* 76(6): 1-20.
- FISHER, W. S. 1938. New neotropical Buprestidae. *Acta Entomologica Musei Nationalis Pragae Cechoslovakensis* 16(158): 111-145.
- HESPENSEIDE, H. A. 1974. Nomenclatural notes on the Agrilinae (Coleoptera, Buprestidae): II *Agrilus*. *Entomological News* 85(3): 48-53.
- OBENBERGER, J. 1933. Nové druhy rodu *Agrilus* Steph. (Col. Bupr.). De Agrili generis speciebus novis (Col. Bupr.). *Acta Entomologica Musei Nationalis Pragae* 11:15-81.
- OBENBERGER, J. 1935. De novis Agrili generis regionis Neotropicae speciebus (Col. Bupr.). Nové druhy krasoc z rodu *Agrilus* z Neotropické oblasti. *Acta Entomologica Musei Nationalis Pragae* 13: 108-140.
- WESTCOTT, R. L. & H.A. HESPENSEIDE. 2006. The description of a new species of *Agrilus* Curtis, with distributional records, and taxonomic and biological notes for Agrilinae and Trachyinae (Coleoptera: Buprestidae) of Mexico and Central America. *Zootaxa* 1367:1-35.