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A NEW SPECIES OF AGRILUS CURTIS, 1825 FROM OAXACA
(COLEOPTERA: BUPRESTIDAE)

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ABSTRACT. A new species of Agrilus, A. aliciae, is described from the Oaxacan lowlands in honor of the late Mexican entomologist Alicia Rodríguez-Palafox. The species is fully described, illustrated and compared to A. centralis Waterhouse, 1889.

KEY WORDS: Taxonomy, Coleoptera, Buprestidae, Agrilus, Mexico, new species.


RESUMEN. Se describe una nueva especie de Agrilus, A. aliciae, de la parte baja de Oaxaca. Esto se realiza en honor a la entomóloga mexicana Alicia Rodríguez-Palafox, recientemente fallecida. La especie es descrita, ilustrada y comparada con A. centralis Waterhouse, 1889.

PALABRAS CLAVE: Taxonomía, Coleoptera, Buprestidae, Agrilus, México, nueva especie.

According to the review of Mexican Buprestidae (Coleoptera) by Hespenheide (1996), there are at least 624 species of the genus Agrilus Curtis, 1825 that occur in Mexico, including 281 described and 343 undescribed species. Subsequently, only two species have been described (see Bellamy and Hespenheide, 2002). Thus, I take this opportunity to describe a new species in honor of Alicia Rodríguez-Palafox to commemorate her life and remember her interests in and contributions to the understanding of the entomofauna of her richly biodiverse country.

MATERIALS AND METHODS

Label data are presented verbatim but slightly modified to present data in a similar sequence. The forward slash ‘/’ is used to indicate data from separate labels.

Specimens of this new species were provided by or are deposited in the collections listed below: institutional collections are: CASC - California Academy of Sciences, San Francisco; CSCA - California State Collection of Arthropods, Sacramento; EBCC - Estación de Biología Chamela, Jalisco; LACM - Natural History Museum of Los Angeles County; UCDC - University of California, Davis; UNAM - Coleccion Nacional de Insectos, Instituto de Biología, Universidad Nacional Autonoma de Mexico, Mexico City; USNM - U. S. National Museum of Natural History, Smithsonian Institution, Washington, D.C.; and personal research collections are:
Bellamy: A new species of Agrilus Curtis, 1825 from Oaxaca

CHAH - H. A. Hespenheide, Los Angeles, CLBC - my collection, this address; DSVC - D. S. Verity, Los Angeles; GCWC - George C. Walters, La Puente, California; GHNC - G. H. Nelson, Blue Springs, Missouri; RLWE - R. L. Westcott, Salem, Oregon; SGBG - S. Gottwald, Berlin, Germany and TCMC - Ted C. MacRae, Chesterfield, Missouri.

*Agrilus aliciae*, sp. nov.  
(Figs. 1 - 10)

**Description.** Holotype, male (Figs. 1, 2). Elongate, subcylindrical, moderately robust, transversely convex below, shallowly convex longitudinally above; maximum length 10.1 mm, maximum width of pronotum 2.2 mm, maximum width of abdomen 2.3 mm; vertex, pronotum, anterior portion of elytra, ventral surface and legs black with shining, yet faint, red-purple reflection; majority of elytral surface flat black; frontovertex between eyes with aeneous reflection; clypeus with red-cupreous reflection; frons and prosternum feebly punctate, vertex, pronotum, elytra and ventral surface imbricate; surface generally with sparse, short adpressed white setae, setae on ventral surface approximately twice as long, twice as dense as dorsal surface; frontovertex depression, lateral portion of thoracic ventrites, area posterior to metacoxa and latero-posterior angle of first visible abdominal tergite with white pulverulence; frontovertex depression with dense, moderately long, adpressed white setae infused with white pulverulence; median portion of prosternum and anterior portion of metasternum with dense, semi-erect white setae.

**Head** (Fig. 5): with frontovertex projecting just beyond outline of eyes, longitudinal depression widens between eyes; frontoclypeus wider between antennal cavities than width of cavity; clypeus deeply, arcuately emarginate; antennae with antennomere 2 and 3 subequal, 2 more robust, 4-11 triangular-serrate.

**Pronotum** (Figs. 6, 7): slightly wider at posterior 1/3 than widest portion of elytra; anterior margin arcuate medially; posterior margin bisinuate on either side of median truncate lobe anterior to scutellum; lateral margins broadly arcuate; latero-posterior angles obtuse; disk with broad, shallow, median subtrapezoidal depression, widest in posterior portion; lateral portion of disk transversely slightly rounded; premarginal (*i.e.* Fisher’s (1928) ‘prehumeral’) carina biarcuate, extending from posterior margin and becoming contiguous with lateral margin just before anterior margin; lateral margin and submarginal carinae subparallel, most widely separated anteriorly, then gradually approaching until becoming contiguous just before posterior margin.

**Scutellum** (Fig. 6): quite broad in the anterior portion, then narrowing to acuminate apex. Elytra widest opposite humeri, sides nearly parallel immediately just posterior humeri, then narrowing to about midpoint before slightly expanding to just anterior of posterior 1/3, then narrowing to separately rounded angulate apices, which are sparsely toothed (Fig. 8); disk flattened, a very feebly elevated and rather broad longitudinal costa on either side separates flattened median portion from transversely rounded lateral portion; epipleuron short, extending not quite as long as mesepisternum. Pygidium not visible beyond elytral apices nor with longitudinal carina or distal projection.

**Underside.** Prosternal process with sides nearly parallel between procoxae then rounded apically. Metacoxal plate with posterior margin shallowly bisinuate, latero-posterior angle acute. Abdomen with suture between ventrites 1 and 2 not visible; length of ventrites 1 + 2 longer than 3 + 4 + 5. Metatibiae with setal comb on outer edge along posterior 2/3. Tarsal claws bifid with short, broad inner tooth.

**Aedeagus:** as in Fig. 9.

**Variation.** The female allotype (Figs. 3, 4) differs from the holotype as follows: length 10.6 mm, width of pronotum 2.4 mm, width of abdomen 2.9 mm; more robust, abdomen broader in
FIGURES 1-10, *Agrilus aliciae*, sp. nov. - 1) holotype, dorsal habitus; 2) holotype, lateral habitus; 3) allotype, dorsal habitus; 4) allotype, lateral habitus; 5) head, frontal aspect; 6) pronotum and scutellum, dorsal aspect; 7) pronotum, lateral aspect; 8) elytral apices, dorsal aspect; 9) holotype, male genitalia, dorsal aspect; 10) allotype, ovipositor, dorsal aspect. FIGURES 11-12, *A. centralis* Waterhouse, 1889, 11) dorsal habitus; 12) elytral apices, dorsal aspect. Scale bars = 1.0 mm and the same.
Bellamy: A new species of Agrilus Curtis, 1825 from Oaxaca

proportion; color of frontovertex same as general ground color; frontovertex depression lacks long white setae and white pulverulence; prothorax and metasternum lack dense, long, white setae; visible abdominal tergites 3 and 4 with pulverulent patches; slightly more dense patch of beige setae occurs along suture between ventrites 1 and 2 at about lateral 1/3 with larger patch near anterolateral angle of ventrite 3; the distal portion of the ovipositor is shown in Fig. 10. The paratypes vary in size: 

/c37 (n = 93), length 7.9 - 10.2 mm, width of pronotum 1.9 - 2.2 mm, width of abdomen 2.0 - 2.3 mm; 
/c38 (n = 163), length 8.5 - 11.2 mm, width of pronotum 2.0 - 2.7 mm, width of abdomen 2.4 - 3.0 mm.

MATERIAL EXAMINED


Hosts. Most of the specimens in the type series were collected by beating the foliage and/or dead branches of Haematoxylum brasiletto Karst. (Fabaceae). Other specimens were collected from miscellaneous foliage growing in the same dense tropical thorn scrub habitat, between Tehuantepec and Juchitan, in the Oaxacan lowlands.

Etymology. The specific epithet is chosen to remember Alicia Rodríguez-Palafox.

Remarks. Considering the large number of undescribed species of Agrilus in Mexico, discussing or relating A. aliciae either to its sister-species or another phylogenetically-related species is not possible. One species with similar size and coloration is A. centralis Waterhouse, 1889 (Fig. 11) known from localities in Chiapas and Oaxaca as well as south into Costa Rica. Agrilus centralis differs from A. aliciae as follows: ground color ranges from black with blue-green reflection dorsally and purple ventrally to aeneous; the elytra have two pairs of small setal spots; the color of the dense pulverulent patches ranges from golden yellow to off-white; the thoracic pulverulent areas are restricted to the metasternum, metepisternum and metacoxal plate; the ventral surface vestiture is more sparse; and the configuration of the elytral apices differs as in Fig. 12. According to Henry Hespenheide (pers. comm.), A. aliciae belongs to a group including A. discoidalis Waterhouse, 1889, A. splendidipodex Thomson, 1878 and at least one additional undescribed species.

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Literature Cited


