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DESCRIPTION OF A NEW SPECIES OF ATAENIUS HAROLD, 1867 OF THE “A. AEQUALIS-PLATENSIS” GROUP (COLEOPTERA: SCARABAEIDAE: APHODIINAE: EUPARIINI) FROM MEXICO

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ABSTRACT

Ataenius suineata sp. nov. is described based on 3 specimens from Acahuizotla, Guerrero, Mexico. Distinctive characteristics for this species are illustrated. A revised partial key to the Mexican species of “Ataenius aequalis-platensis” group is provided. This species may be considered endemic to Mexico.

Key Words: Taxonomy, Scarabaeidae, Aphodiinae, Ataenius, Mexico, Distribution, Endemism

RESUMEN

Se describe Ataenius suineata sp. nov. con base en tres especímenes provenientes de Acahuizotla, Guerrero, México. Las características distintivas de esta especie son ilustradas. Se provee una clave parcial del grupo “Ataenius aequalis-platensis” para la especie mexicana. Esta especie puede ser considerada endémica de México.

Palabras Clave: Taxonomía, Scarabaeidae, Aphodiinae, Ataenius, México, Distribución, Endemismo

The group of species “Ataenius aequalis-platensis” was defined by Stebnicka (2005, 2007) and comprises 27 species (Table 1). The species of this group are recognized by the “body oval, elongated, parallel, moderately convex, usually glabrous, shiny, length 2.1-6.0 mm; head moderate in size, genae prominent; clypeal edge usually rounded, subangulate or denticulate on each side of median emargination; clypeal surface with fine transverse wrinkles; vertex finely punctate; pronotum convex, transverse, margined basally, lateral margin usually fringed with setae of various lengths, surface with two or three kinds of punctures; scutellum triangular; elytra parallel-sided or arcuate, finely marginated basally, humeral denticles fine; elytral striae more or less distinctly impressed, striae punctures fine to moderate; intervals flat or convex, in some species setigerous; profemoral surface shiny, punctate; mesofemora and metafemora punctate or smooth, postfemoral lines incomplete or absent; mesotibia and metatibiae slender, apex of metastibia with slender spurs and fringe of very short setae, fine accessory spine present or lacking; tarsi slender, basal tarsomere of metastarsus longer than upper tibial spur, equal in length or shorter and usually shorter than following tarsomeres together; ventral surface glabrous, abdominal sternites finely fluted along sutures and usually impunctate at middle, sometimes setigerous laterally, disc of pygidium eroded; the males of most species have the terminal spur of protibia hooked inwardly, or slightly bent downward or sinuate, the pronotal punctures less dense than in females especially at middle of disc, and the clypeal surface less distinctly sculptured; like in the other species-groups of Ataenius, the males of all species have the penultimate abdominal sternite shorter and less deeply fluted than in females and disc of pygidium longer; male genitalia are usually well differentiated, mostly those of aequalis type with variously shaped apices of the parameres, while those of platensis type are lightly sclerotized with almost parallel-sided, apically rounded and weakly diversified parameres”.

Recently I found 3 specimens in the Entomology Collection (IEXA) of the Institute of Ecology, A. C. (INECOL), Mexico, representing a new species of the group from Acahuizotla, Guerrero, Mexico, on the internal slope of the southern Sierra Madre. The purpose of this paper is to describe this new species and to revise the key presented by Stebnicka (2005). With this new species there are 11 species of “A. aequalis-platensis” group in Mexico (Table 1).
### Table 1. Distribution of American Species of "*Ataenius aequalis-platensis*" Group, Sensu Stebnicka (2005, 2007). Abbreviations: USA: United States Of America, Mex: Mexico, Gua: Guatemala, Bel: Belize, Hon: Honduras, Sal: El Salvador, Nic: Nicaragua, CR: Costa Rica, Pan: Panama, Wi: West Indies, Col: Colombia, Ven: Venezuela, Guy: Guyana, Ecu: Ecuador, Per: Peru, Bra: Brazil, Bol: Bolivia, Ur: Uruguay, Par: Paraguay, Arg: Argentina.

| Species / Country                                      | USA | M | G | B | H | S | N | P | C | V | G | E | P | B | B | U | P | A |
|--------------------------------------------------------|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. abanca Stebnicka 2005                                |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. aequalis Harold 1880                                 | X   | X |   |   |   |   |   | X | X | X | X | X |   |   |   |   |   |   |
| A. borjae Stebnicka 2005                                |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. caicarae Stebnicka 2005                              | X   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. castaniellus Bates 1887                              |     | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. clavatus Schmidt 1916                                 |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. clitellarius Petrovich 1973                           |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. cochabambae Stebnicka 2005                            |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. deplus Petrovich 1976                                 | X   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. desertus Horn 1871                                   |     | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. guanacastae Stebnicka 2005                            |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. guriensis Stebnicka 2005                              |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. hirsutus Horn 1871                                   |     | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. hoelleri Balthasar 1963                               |     |   |   |   |   |   |   | X | X | X | X |   |   |   |   |   |   |   |
| A. languardus Schmidt 1911                               | X   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. kinkol Petrovich 1973                                 |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. lobatus Horn 1871                                    | X   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. longicculus Petrovich 1970                            |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. onkonensis Stebnicka 2005                             |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. platensis (Blanchard, 1846)                           | X   | X | X | X | X | X | X | X | X | X | X | X |   |   |   |   |   |   |
| A. plaumanni Petrovich 1973                              |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. pseudoclavatus Stebnicka 2005                         |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. pseudousingeri Galante et al., 2003                   | X   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. punctipennis Harold 1868                              |     | X | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. suineata Deloya sp. nov.                              |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. setiger Bates 1887                                    | X   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A. usingeri Hinton 1937                                  |     | X | X | X | X | X | X |   |   |   |   |   |   |   |   |   |   |   |
| A. variopunctatus Schmidt 1922                           |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Total especies (28)                                      | 7   | 11| 5 | 3 | 4 | 4 | 1 | 4 | 5 | 5 | 3 | 8 | 1 | 3 | 1 | 9 | 6 | 1 | 3 | 8 |
ATAENIUS SUINEATA DELOYA SP. NOV. (FIGS. 1-6)

Description

Holotype male. Length 4.2 mm, humeral width 1.7 mm, elongated-oblong, shiny, reddish-black; legs, anterior margin of head, and anterior side of pronotum reddish. Head. Clypeus: anterior margin rounded on each side of a wide, deep, margin shaped like an open “u”, anterior surface transversally rugose, basal surface with fine punctures regularly spaced; front with medium-size punctures sparsely distributed and separated by a distance measuring its own length or less. Thorax. Pronotum (Fig. 1): transverse, wider than its length (1.00:0.67), base and sides marginate and flattened setae of equal length along the lateral and basal margin, with the same length as the third protarsus, separated by less than its own length; base and very slightly bisinuate, sides slightly arched and crenulate; basal angles rounded and crenulate toward the base near the humeral callus, anterior angles obtuse, anterolateral region lacking expanded area; surface of the glabrous disc with mixed punctuation; dense fine points, regularly spaced and separated by 1-2 times their own diameter in the anterior half, large points scarce on the basal half, irregularly scattered and intermixed with fine punctures; lateral surface with mixed punctuation, large punctures, dense and close together. Scutellum longer than wide, surface aplannate. Elytrae: longer than their wide (1.00:0.73), shiny; intervals highly convex, with coarse punctures separated by its own or smaller diameter, the first lateral interval corroded, glabrous on the disc, short, inconspicuous setae on the lateral margin. Protibia tridentate, dorsal surface bright, with homogeneous punctuation, protibial spur apically elbowed and projected downward, longer than the first respective protarsus, inferior line of metasemufemur 70% impressed, inferior line of metafemur 50% impressed, metasternal plate with 0-4 large points on each side of the longitudinal canal.

Variation in the paratype. In the only male paratype, the absence of large punctures on each side of the metasternal furrow is noted.

Material Studied

Holotype and allotype labelled thus: “MEXICO: Guerrero, Acahuizotla, VI-93, E. Pokorny, lgt.”; paratype male, same data, except for the addition of “5-V-86, mercurial light, A.C. Deloya.”

The holotype and allotype are deposited in the Entomological Collection of the Institute of Ecology, A.C. (IEXA); the paratype is deposited in Instituto de Biología, UNAM (IBUNAM).

Type-locality. Acahuizotla, Guerrero, Mexico.

Etymology

The specific name A. suineata sp. nov. is an anagram of the genus Ataenius.

Remarks

Ataenius suineata sp. nov. can be recognized by the following characteristics: male genitalia differ from the common pattern of the species of “A. aequalis-platensis”, the parameres of A. suineata are forked and shorter than the phallobase (0.73:1), with many setae at apical margin; anterior margin of the clypeus rounded and partially rugose, basal third of the elytral intervals convex, ventral posterior marginal line face of the mesofemur and metafemur incomplete, base of all abdominal sternites visibly fluted, mesosternum carinate between the mesocoxae, mesotibia- and metatibia with accessory spine and one seta between it and the inferior spur, abdominal sternites with homogeneous punctuation, anterior edge of pygidium punctate, front and disc of prothorax with heterogeneous punctuation, scutellum longer than wide.
Figs. 1-6. *Ataenius suineata* sp. nov., male paratype. 1, dorsal habitus (line = 1 mm); 2, abdominal sternites (scale = Fig. 1); 3, aedeagus, dorsal view (line = 0.5 mm); 4, parameres, lateral view (line = 0.5 mm); 5, parameres apex (line = 0.2 mm); 6, aedeagus, ventral view (line = 0.2 mm).
**Ataenius suineata sp. nov.** is similar to *A. usingeri* Hinton 1937; both species have anterior margin of the clypeus rounded; basal third of the elytral intervals convex, ventral posterior marginal line of the mesofemur and metafemur incomplete; mesotibia and metatibia with accessory spine and one seta between it and the inferior spur. In contrast, *A. suineata* has scutellum longer than wide; parameres: apex strongly projected downward and bifurcate, inferior side sharply curved, superior side slightly bisinuate (Figs. 4 and 5). *Ataenius suineata* lives in tropical semideciduous forests at an altitude of 700 m on the internal slope of the Southern Sierra Madre; it is considered possibly endemic to Mexico.

**MODIFICATION OF KEY ATAENIUS HAROLD, “A. AEQUALIS-PLATENSIS” GROUP (SENSU STEBNICKA, 2005)**

6. Body shiny, clypeal margin widely rounded ............................ 7

6’. Body dull, clypeal margin widely rounded; pronotum with coarse punctures concentrated around smoother, finely uniformly punctate median anterior disc; coarse pronotal punctures on sides separated by one their diameter or more. Peru .................................. *A. abancay* Stebnicka

7(6). Pronotal disc with widely spaced punctures on anterior half; mix of coarse and shallow punctures on posterior half, coarse punctures widely separated. Lateral and posterolateral areas of pronotal disc with coarse and shallow punctures, coarse punctures separated by less than its own diameter, fused on the anterolateral margins. Southern Mexico ........................................... *A. suineata sp. nov.*

7’. Basal third of pronotum with widely spaced punctures, lateral area with mix of shallow and coarse punctures, coarse punctures contiguous, never fused. Central America and Mexico................................. *A. usingeri* Hinton

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