

OAXACANTHAXIA NIGROAENEA NELSON AND MACRAE,
A NEW SPECIES FROM MEXICO
(COLEOPTERA: BUPRESTIDAE)

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ABSTRACT

Oaxacanthaxia nigroaenea Nelson and MacRae, new species, is described from the Mexican state of Oaxaca. Its relationship to the recently described *O. viridis* Bellamy is discussed and necessary modifications in the generic characterizations are given.

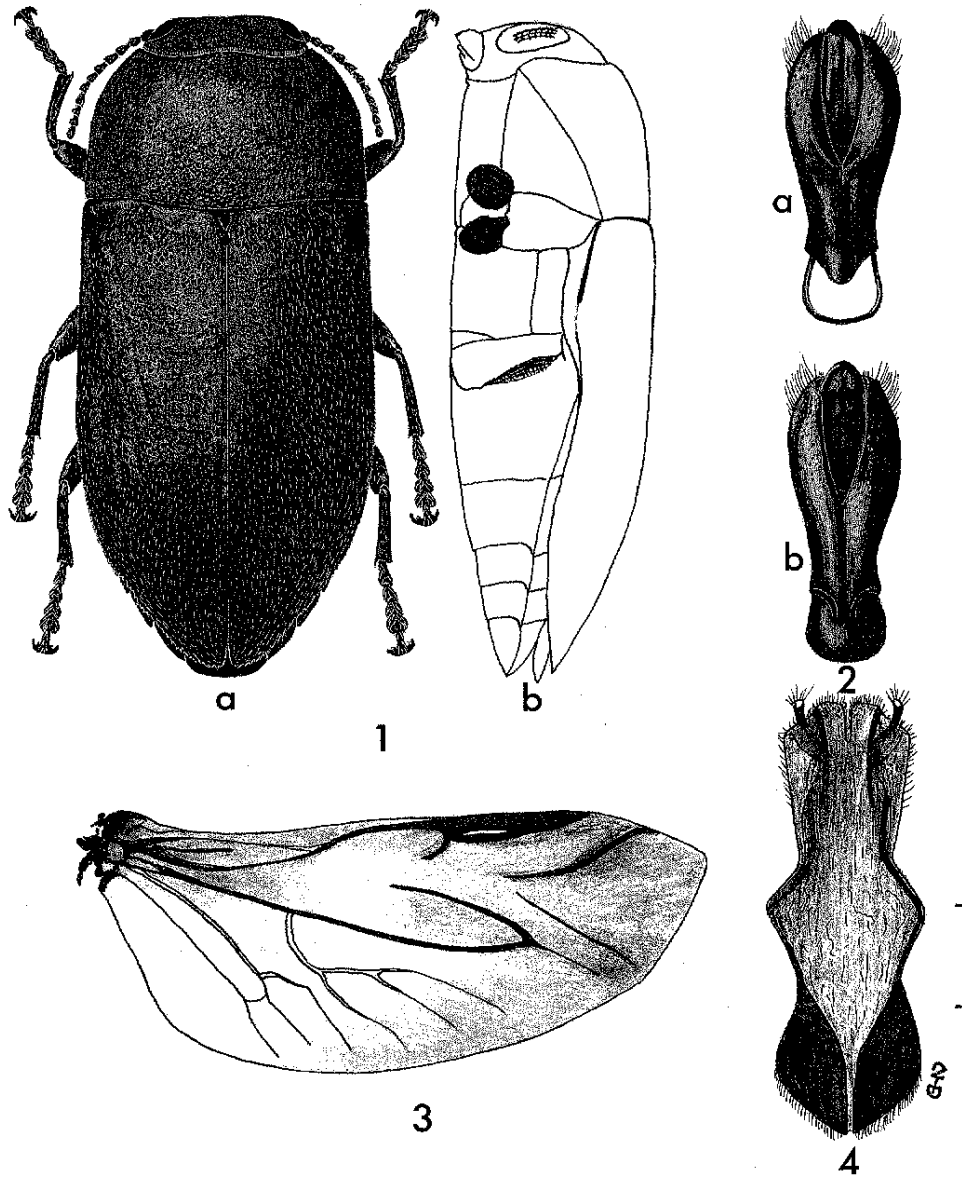
During a recent collecting trip to Mexico, several undescribed species of Buprestidae, one of which is described in this paper, were collected in the lowland, tropical thorn forest of the Isthmus of Tehuantepec, state of Oaxaca. The new species is related to the recently described *Oaxacanthaxia viridis* Bellamy (1990), which was described from specimens also collected in the Isthmus from nearby localities. The relationship of the genus *Oaxacanthaxia* to Old World genera in the anthaxiine subtribe Thomassetiina indicated that this taxon is relictual (Bellamy 1990), and the discovery of a second species in this genus from the same area is all the more remarkable. This suggests that the thorn forests in the Isthmus of Tehuantepec may serve as a refugial habitat for other, once more widespread taxa. Because of the potential for the discovery of additional species in the Isthmus of Tehuantepec, this part of Mexico is worthy of further study.

Collection codens are as listed in Arnett and Samuelson (1986) or as follows: Svatopluk Bily = SVBC; T. C. MacRae = TCMC. Measurements are as maximum lengths and widths and were taken with the use of an ocular grid. Thanks are due D. S. Verity, Los Angeles, California, for helping to collect the type series; C. L. Bellamy, Escondido, California, for helpful comments on the manuscript; and to Ms. Annette Lee for typing the manuscript.

Oaxacanthaxia nigroaenea Nelson and MacRae, **new species**
(Figs. 1-4)

HOLOTYPE MALE (Fig. 1). 6.5 × 2.9 mm; parallel-oval, transversely convex; rather dull, darkly aeneous above and below with cupreous reflections on lower anterior head, lateral pronotum, parts of thoracic sternites, femora, and bluish tints on tibiae and tarsi.

Head with frontovertex feebly convex with faint median impression between eyes; retracted at level of antennal cavities and below; ventral epistomal margin arcuately emarginate; surface finely, shallowly, moderately densely punctate, punctures coarser and



Figs. 1–4. *Oaxacanthaxia nigroaenea*. Fig. 1, holotype male, a) dorsal view, b) lateral view; Fig. 2, male genitalia, a) dorsal view, b) ventral view; Fig. 3, metathoracic wing; Fig. 4, ovipositor. (Line = 1.0 mm for Figs. 1, 3; 0.5 mm for Figs. 2, 4.)

reticulate on lower frontoclypeus, clothed by recumbent and semirecumbent white setae; antennae reaching posterior $\frac{1}{3}$ of pronotum when laid alongside; antennomere 1 elongate, longer than 2 + 3, 2 shorter than 3; antenna serrate and antennomeres gradually decreasing in length from 3–10, 11 oblong; antennomeres 1 and 2 sparsely setose, 3–11 moderately so; sensory pores in single apicolateral fovea on ventral surface.

Pronotum width to length ratio 1.8 to 1.0, widest at posterior margin; lateral margins carinated, subparallel to middle, then more strongly arcuately converging to narrowest at bisinuate anterior margin; posterior margin feebly bisinuate with part underlapping elytral base shiny and impunctate; posterolateral angles weakly acute; disk evenly convex; surface densely, shallowly punctate, becoming somewhat reticulate laterally, moderately

clothed with semirecumbent, hair-like white setae. Scutellum small, subtriangular; surface glabrous, impunctate.

Elytra as wide as pronotum at base; lateral margins carinate in basal $\frac{1}{6}$, subparallel to widest point at middle, then arcuately converging to separately, narrowly rounded apices; lateral margins serrate in apical $\frac{1}{2}$; epipleuron joins lateral margin before middle (Fig. 1*b*); disk moderately convex, striae obscured; surface moderately densely punctate, punctures more dense with some reticulations laterally, humeri rather impunctate; surface moderately clothed by semirecumbent, hairlike white setae.

Ventrally, prosternum with anterior margin beaded, transverse and truncate; disk moderately convex; prosternal process with sides subparallel between procoxae, apex feebly trilobed, with subtruncate medial lobe converging between mesosternal lobes; metacoxal plates with posterior margin feebly emarginate in lateral $\frac{2}{3}$, weakly dilated in medial $\frac{1}{3}$; sternal areas rather densely, shallowly, alveolately punctate laterally, punctures smaller and less dense medially; moderately clothed with recumbent and semirecumbent, hair-like white setae; sutures between abdominal sternites transverse medially, curved posteriorward laterally; last visible sternite broadly rounded.

Legs with femora fusiform, sulcate along inferior margin; tibiae straight, with 2 apical spines, inner spine slightly longer; metatibia with hair-like setae along outer margin and apical $\frac{1}{2}$ of inner margin; tarsomere 1 equal in length to 2 + 3, 5 with claws appendiculate, 1-4 with ventral pulvilli.

Male genitalia (Fig. 2).

ALLOTYPE FEMALE. 7.9 × 3.5 mm; closely similar to male but antennae shorter, reaching only to middle of pronotum when laid alongside. Metathoracic wing (Fig. 3). Ovipositor (Fig. 4).

TYPE SERIES. *Oaxacanthaxia nigroaenea* is described from 11 males and 30 females, all from MEXICO, OAXACA: Hwy 190, 16 km E Tehuantepec, on *Haematoxylon* sp. Holotype male (UNAM) and allotype female (GHNC), 13-VII-92, G. H. Nelson. Paratypes same data, 12/14-VII-92, T. C. MacRae, G. H. Nelson, and D. S. Verity (39). Paratypes in the following collections: CASC, CLBC, DSVC, GCWC, GHNC, RLWE, SVBC, TCMC, USNM, WFBC.

VARIATION. The type series varies in color from rather uniform nigroaeneous to those having moderately distinct cupreous and/or blue tints on various parts of the body. The only other noticeable variation is in size. The males vary from 6.2 to 7.1 mm long (\bar{x} = 6.6 mm, n = 11) and 2.7 to 3.4 mm wide (\bar{x} = 3.0 mm, n = 11); females from 5.3 to 8.6 mm long (\bar{x} = 7.0 mm, n = 27) and 2.5 to 3.8 mm wide (\bar{x} = 3.3 mm, n = 27).

DISTRIBUTION. Known only from the type locality.

BIOLOGY. The entire type series was beaten from branches of *Haematoxylon* sp. (adult host) occurring in thick stands in lowland, tropical thorn forest. It is not known whether this plant serves as a larval host.

COMPARISONS. Bellamy (1990), in his description of the genus *Oaxacanthaxia*, discussed the close relationship of this genus to the Indo-Oriental genus *Philanthaxia* Deyrolle, and its secondary relationships to several Afrotropical genera. Bellamy placed all of these genera within a redefined Thomassetiina; this has recently been proposed as a junior synonym of *Bubastina* Obenberger (Holynski 1993). The discovery of *O. nigroaenea* necessitates a redefinition of some of the generic characters described for the genus. Its subparallel body form, non-iridescent coloration, and basally subparallel pronotum as wide as the elytra differ from the definitions given for these characters in the generic description. *Oaxacanthaxia nigroaenea* can be further separated from *O. viridis* Bellamy by the nigroaeneous general color, brassy-cupreous epistoma, lack of lateral pronotal depressions, by the carina of the lateral elytral margin being

very short, but entire in *O. viridis*, and by the setae being easily visible at 7×.

ETYMOLOGY. The specific name is derived from the dark aeneous color.

Oaxacanthaxia viridis Bellamy

One female of *O. viridis* Bellamy was collected in OAXACA: Hwy 190, 12 km E Tehuantepec, 11/15-VII-92, D.S. Verity on *Cassia* sp. It is dark blue-green above with cupreous on humeri and on posterior part of elytral disk.

LITERATURE CITED

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CATALOG OF NORTH AMERICAN COLEOPTERA

For many years, the USDA personal at the Smithsonian Institution in Washington, D.C. have been producing "A Catalog of the Coleoptera of America north of Mexico." A number of fascicles have been published and several more are in various stages of publishing.

Recently, the responsibility for continuing the production of this catalog has been shifted to the Canadian National Collection of Insects, Agriculture Canada, Ottawa. The Coordinator of this effort is Dr. Donald E. Bright, assisted by the other coleopterists at the CNC. The Canadian effort will be a completely new undertaking with a new computer program and a new publishing procedure. A computer program has been developed which will allow for easy input and manipulation of data. This program will be sent to authors willing to prepare fascicles for the catalog. Presently, the program is made for IBM-type computers; a version for MacIntosh computers may be prepared but this will take some time. It is intended to only do the families not done by the USDA; the families already published or in process of publishing will be updated at the end of the project. Each family or subfamily will be published as quickly as possible (within one year of receiving the completed program) and issued as individual fascicles. When all families are done, a complete catalog of the Coleoptera will be prepared.

A complete description of the project is not possible here. Anyone interested in preparing one or more fascicles is asked to please let me know what you are willing to do as soon as possible. More information will be sent to those participating in the project.

Your help is urgently needed if we are ever going to get a complete catalog of the North American Coleoptera. My address and phone number are on the inside front cover of the Bulletin.

Donald E. Bright