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Acmaeodera moesta Dugès, 1891 (Coleoptera: Buprestidae), a poorly known species from Mexico

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Abstract. Two new state records are reported for the Mexican *Acmaeodera moesta* Dugès (Coleoptera: Buprestidae), a lectotype is designated for it, and clarifying discussion is provided.

Key words. Jewel beetle, new state records, lectotype.

ZooBank registration. urn:lsid:zoobank.org:pub:487E311F-35F4-482C-BF20-03C1BF262819

Introduction

According to Westcott (2020) there are 152 described valid species of *Acmaeodera* Eschscholtz in Mexico. *Acmaeodera moesta* Dugès (Fig. 1–3) was described from the state of Guanajuato, and it has not since been mentioned in the literature except for listings in catalogs and checklists. Herein we record it from the states of México (MEX) and San Luis Potosí (SLP), designate a lectotype, and provide a detailed discussion.

Materials and Methods

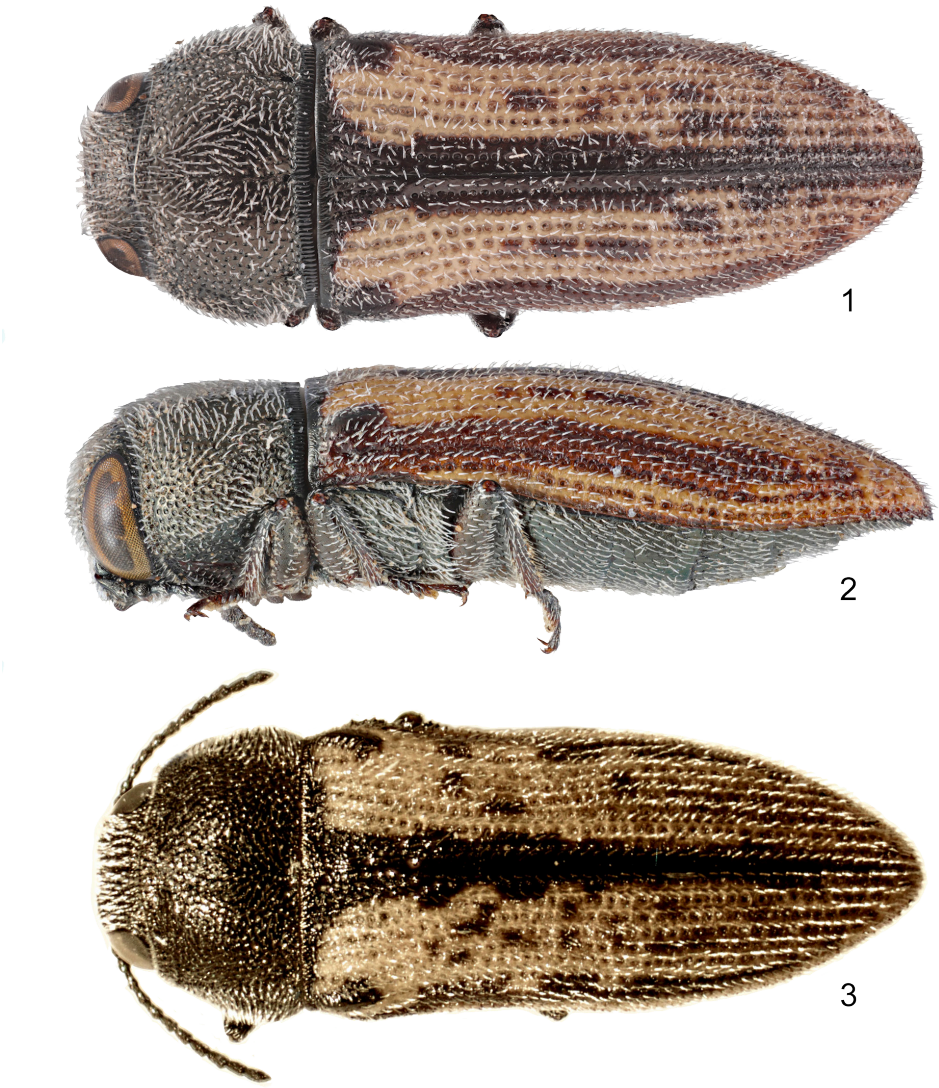
We received specimens of *A. moesta* with requests for identification. Those from MEX were submitted to JRN as bycatch from a project on red worm of maguey, *Comadia redtenbacheri* (Hammerschmidt) (Lepidoptera: Cossidae), for which traps were set in a maguey (*Agave salmiana* Otto ex Salm-Dyck [Asparagaceae]) plantation (Fig. 4–5) to capture the adult moth. Specimens from SLP were found among miscellaneous museum material sent to RLW for identification.

Collection abbreviations used herein are:

CEAM Centro de Entomológica y Acarología, Colegio de Postgraduados, Montecillo, México.
CNIN Collección Nacional de Insectos, Universidad Nacional Autónoma de *México, Ciudad de México.*
RLWE Richard L. Westcott, Salem, Oregon, U.S.A.
WFBM W. F. Barr Entomological Museum, University of Idaho, Moscow, Idaho, U.S.A.

Discussion

Dugès (1891) described *A. moesta* from an unknown number of specimens from "Guanajuato," which in his opinion consisted of two varieties. Based on our interpretation, his description does not fit his crude figure for the species, which is quite different and reminiscent of *Acmaeodera quadrivittata* Horn. In Dugès (1891), *A. moesta* is shown as figure 16 on the plate; however, the figure caption indicates figure 17, which represents a totally unrelated species.



Figures 1–3. Adult habitus of *Acmaeodera moesta*. **1)** SLP, dorsal. **2)** Same, lateral. **3)** MEX, dorsal.

According to Santiago Zaragoza Caballero (personal communication to RLW), specimens other than the lone "HOLOTIPO" (Irekani 2009) were destroyed by dermestid beetles. Since it is obvious from his description that Dugès (1891) described the species from more than one specimen, and he did not designate a type, the aforementioned cannot be a holotype; rather, it is a syntype. Herein we designate it (CNIN) to be the **lectotype** of *Acmaeodera moesta* Dugès. It is labeled as follows, labels separated by a slash, all handwritten except as indicated by a "P": "407/Colección E. Duge[sic]s [P]/ Guanajuato, 868, D-16 [red ink]/ Acmaeodera moesta [followed by what appears to be a question mark]/HOLOTIPO *Acmaeodera moesta* Dugé[sic]s" [P]. The latter label obviously is curatorial. Years ago, one of us (RLW) compared that type to a specimen (Fig. 1–2) in a series from the following locality and considered them conspecific: **SAN LUIS POTOSÍ**, 18 mi S San Luis Potosí, 27-III-1970, on flowers *Opuntia* sp., F. M. Beer (3, RLWE; 6, WFBM). Also studied were specimens from **EDO. DE MÉXICO**, Mpo. Otumba, 1.6 km SE San Miguel Zolco, 19.645368°, -98.751484°, 2540 m, 17-IV-2014 and 18-V-2015, G. N. Espinosa, en trampa de luz con alcohol (4, CEAM); Mpo. Teotihuacán, Santiago Zacualaca, 19°41′55.91″N, 98°55′35.12″W, 2336 m, 13-VII-2015, en trampa de luz, G. N. Espinosa (1, CEAM) (**New state records**). All of those are a close match to the lectotype, ignoring the darker color of the latter that is the result of aging.


Figures 4–5. *Acmaeodera moesta* collection site near San Miguel Zolco, MEX. **4)** View of maguey plantation. **5)** Same showing UV light trap in which specimens were collected.

The specimens we examined all fall within the range of size (5–6 mm long) provided by Dugès in his description. *Acmaeodera moesta* resembles *Acmaeodera riograndei* Nelson, a larger species (6.0–7.8 mm; Nelson 1980), which in Mexico has been recorded only from the northern state of Coahuila. A larval host for either species is unknown; however, the abundance of agave (maguey) at the collection site in MEX suggests it as the most likely for *A. moesta*. The larvae of four species of the genus that occur in Mexico and the U.S.A., e.g. *A. quadrivittata*, are known to feed in dead flower stalks of plants in the family Asparagaceae (Nelson et al. 2008).

Adults of the genus *Acmaeodera* are diurnal, thus the individuals found in the light trap (Fig. 5) probably were attracted to the white bucket. The employment of bowl, bottle and pitfall traps, usually white, yellow, or blue, can be very useful for collecting a variety of species.

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