

NOTES ON THE SPECIES OF *MEGASIDA* CASEY FROM THE UNITED STATES¹

(COLEOPTERA: TENEBRIONIDAE)

CHARLES A. TRIPLEHORN

Department of Zoology and Entomology, The Ohio State University, Columbus, Ohio

ABSTRACT

A tenebrionid beetle from southwestern United States, *Megasida tenuicollis* New Species, is described. Two species of this genus are now known from north of the Rio Grande River, the other being *M. obliterata* (Champion). Ecological and distributional data are presented for both species and their diagnostic characters are discussed and illustrated.

The genus *Megasida* was erected by Casey (1912, p. 202) for certain large, glabrous species previously placed in the genus *Asida*. These are characterized by having the prosternal process deflexed behind the coxae and the terminal segment of the maxillary palpus sexually unmodified. They are similar to the large species of *Stenomorpha*, but in this latter genus the base of the pronotum is conspicuously and broadly lobed medially and the terminal segment of the maxillary palpus is large and scalene in the male, smaller and recti-triangular in the female.

Casey based his description of the genus on *Asida obliterata* Champion, which he selected as the type of the genus. He also included six more of Champion's species from northern Mexico in the genus although it appears unlikely that he ever saw any of them.

Pallister (1954) described two new Mexican species in *Megasida*, bringing the total to nine species currently placed in the genus. Until now, but one species, *M. obliterata*, has been recognized as occurring north of the Rio Grande.

Casey recorded *obliterata* from El Paso, Texas, just across the Rio Grande from the type locality, Paso del Norte (Ciudad Juarez), Chihuahua, Mexico. It has also been recorded from southern Arizona (Horn, 1894, p. 421), but I have never seen one from that state.

On a recent collecting trip,² this species was found in large numbers at White Sands National Monument, Otero County, New Mexico. Dr. Howard V. Weems, Jr., and I, aided by our families, collected 150 specimens within a fifty-yard radius of the wall surrounding the Monument headquarters on the evening of August 19, 1962. The beetles appeared shortly before dusk in company with several species of *Eleodes* and were moving rapidly about. Several hours later their numbers had diminished markedly, and most of those still above ground were scarcely moving.

This large series was identified as *Megasida obliterata* (Champion) and was verified by Mr. T. J. Spilman of the United States Department of Agriculture. Through the courtesy of Mr. J. Balfour-Browne of the British Museum, I was able to study two specimens from Champion's Paso del Norte series and conclude that Casey's determination of this species was correct. Each of the two specimens perfectly match our specimens from White Sands, New Mexico.

During the study, a second species of *Megasida* was found north of the Rio Grande River. The two species may be separated by the following key:

1. Elytra minutely and inconspicuously punctured, surface dull; pronotum with basal angles obtuse or rectilinear, not prolonged caudad..... *obliterata* (Champion)
- 1'. Elytra coarsely and densely punctured, surface shining; pronotum with basal angles acute and prolonged caudad over humeri..... *tenuicollis* n. sp.

¹Manuscript received November 11, 1966.

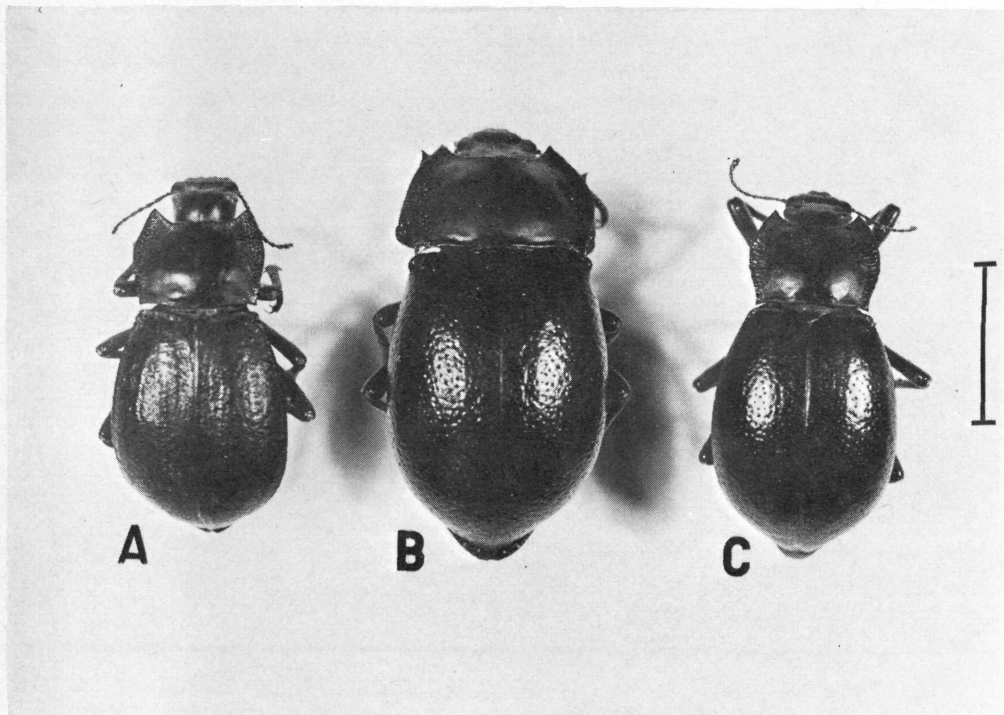
²Sponsored by the American Philosophical Society (Grant No. 3091, Penrose Fund).

Megasida obliterata (Champion)

(Fig. A)

Asida obliterata Champion, 1892, p. 497; Horn, 1894, p. 421.*Megasida obliterata* (Champion), Casey, 1912, p. 203.

Elytra dull and irregularly, finely wrinkled to almost smooth, minutely and inconspicuously punctured; at least an indication of a lateral marginal carina or obtuse angulation present and extending more than halfway from base to apex (one exception); trace of two discal costae sometimes evident; basal angles of pronotum obtuse and not extending backward over humeri; apex of elytral margin sharply reflexed, thin; abdominal sterna minutely scabrous and with



A. *Megasida obliterata* (Champion) ♀. White Sands National Monument, New Mexico.

B. *Megasida foeda* (Champion) ♀. Villa Lerdo, Durango, Mexico.

C. *Megasida tenuicollis* New Species ♀. Brewster County, Texas.

Line = 10 mm.

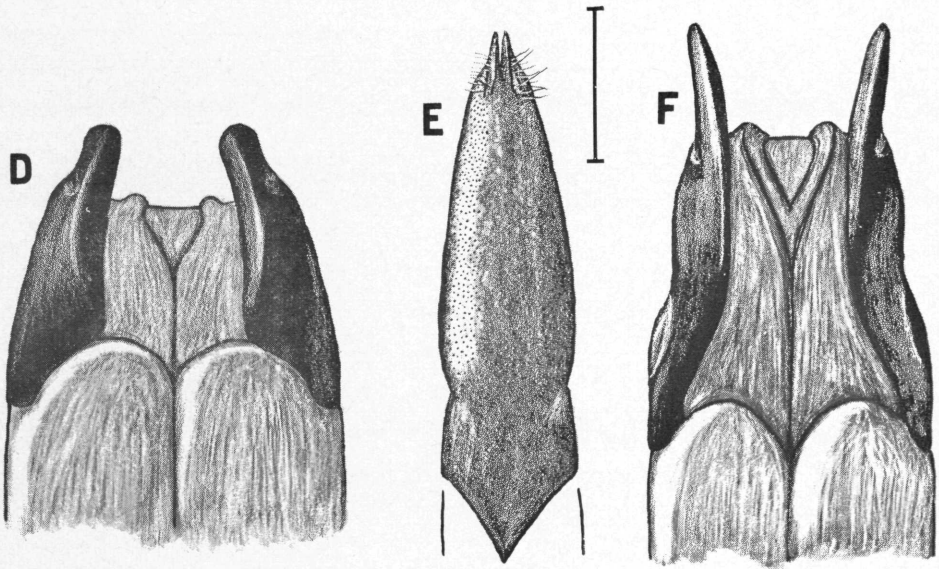
Photograph by Robert B. Welch, Department of Photography, The Ohio State University; drawings by the author.

widely spaced, extremely fine, asperate punctures on apical three segments. *Measurements* (♂, ♀): Length: 19–26 mm.; width: 9.4–13.5 mm. *Distribution*: NEW MEXICO: (5) Alamogordo, August 27, 1960, C. A. & W. E. Triplehorn; (1) Deming, September 26, 1960, J. G. Watts; (159) White Sands National Monument, August 19–21, 1962, C. A. & W. E. Triplehorn, H. V. & Camilla Weems; (28) Las Cruces, September 7, 1966, F. J. Moore. TEXAS: (1) Brewster County, Rt. 385 entrance to Big Bend National Park, August 25, 1960, C. A. & W. E. Triplehorn; (5) Culberson County, August 30, 1940, D. J. & J. N. Knull; (1) El Paso, August 30, 1940, D. J. & J. N. Knull; (2) 9 miles west of Sierra Blanca, August 18, 1962, C. A. Triplehorn & H. V. Weems, Jr.; (1) 8 miles w. of Sterling City, September 1, 1962, H. V. Weems, Jr.

Megasida tenuicollis n. sp.

(Fig. C)

Holotype (♀). Large, stout, moderately inflated posteriorly, convex, shining, glabrous, minutely alutaceous and dark reddish-brown throughout. Head moderately coarsely and sparsely punctured. Pronotum slightly broader than long; base two-tenths wider than apex, lateral margins arcuate, moderately reflexed, broadest about middle, feebly sinuate in basal half, straight and converging anteriorly; apical margin deeply emarginate, angles very acute and prominent; basal margin subtruncate except at angles which are acute and prolonged caudad over humeri, fitting inside humeral carina; disc evenly convex, minutely and sparsely punctate, more coarsely but still sparsely punctured laterally, reflexed portion coarsely wrinkled. Elytra evenly convex from side to side, rather abruptly rounded laterally but without trace of a lateral carina except for a prominent, strongly reflexed humeral callus; surface, including inflexed portion, coarsely and rather densely punctured; punctures finer basally, a series of fine grooves interspersed among punctures, epipleura in the form of a sharp



- D. *Megasida foeda* (Champion). Apex of female genital segment, ventral view.
 E. *Megasida tenuicollis* New Species. Apical sclerite of male aedeagus, dorsal view.
 F. *Megasida tenuicollis* New Species. Apex of female genital segment, ventral view.
 Line=1 mm.

carina at apical fifth of elytra, poorly defined anteriorly; apex not reflexed. Ventral surface of thorax finely and very sparsely punctured; abdominal sterna finely punctured, more coarsely so laterally, punctures connected by a network of fine creases, areas subtended by these creases extremely minutely but densely punctulate and alutaceous. Female genitalia (fig. F) with apex of lateral valves elongate and thin. Male genitalia as shown (fig. E). *Measurements*: Length: 25 mm.; width: 12 mm. *Type Locality*: Green Valley (Brewster Co.), Texas, July 14, H. A. Wenzel (The Ohio State University). *Paratypes*: ARIZONA: (2) 7 miles north of Portal, July 12, 1963, Arthur Raske (on *Opuntia*). NEW MEXICO: (1) Alamogordo, August 27, 1960, C. A. & W. E. Triplehorn; (1) Lordsburg, July 17, 1955, D. J. & J. N. Knull; (1) White Sands National Monument, August 19, 1962, C. A. & W. E. Triplehorn. TEXAS: (13) Brewster County, Green Valley, July 14, H. A. Wenzel; (1) 9 miles west of Sierra Blanca, August 18, 1962, C. A. & W. E. Triplehorn; (1) Oak Spring, Chisos Mts., August 15, 1962, H. V. Weems, Jr. *Measure-*

ments (♂, ♀): Length: 22-29 mm.; width: 11-14 mm. *Variation*: As with most tenebrionid beetles, the females tend to be somewhat larger and more robust than the males. The size and shape of the pronotum vary considerably and the lateral margins in some are sinuate both apically and basally; in others only the basal sinuation is evident. The lateral margins in one specimen are evenly arcuate without trace of sinuations.

The width of the pronotum ranges from 64.3 to 79.4 per cent of the elytral width (Average: 75.2; Holotype: 72.0). The pronotum in all cases is quite evidently much narrower than the elytra.

The elytral punctures vary slightly in depth and coarseness, and somewhat in their distance apart. There is usually no trace of a lateral marginal carina on the elytra, but in one specimen (Chisos Mountains, Texas) there is a very distinct subcarinate ridge. Except for this specimen, the presence or absence of a lateral carina would have been utilized as another distinguishing character separating *obliterata* from *tenuicollis*.

Oddly enough, there is one specimen of *obliterata* (White Sands, New Mexico) in which the lateral carina is absent. In every other specimen it is quite evident.

This species is very similar to *Megasida foeda* (Champion) (fig. B) from Durango, Mexico, and specimens at hand compared favorably with the description of that species. Two specimens of *foeda*, borrowed from the type series through the courtesy of Mr. J. Balfour-Browne, proved to be very different in several important respects. The pronotum in the Durango specimens of *foeda* is extremely wide, nearly as wide as the elytra (88.2 and 90.9 per cent of elytral width). The sides of the elytra are also more parallel than in *tenuicollis*. The illustration accompanying the description indicates an extremely wide pronotum; since Champion mentions no variation, it is assumed that this is characteristic of the species.

Neither body conformation nor the relative size of pronotum in themselves would have been cause for describing *tenuicollis* as a distinct species were it not for the remarkably dissimilar lateral valves of the female genitalia of the two species. In *foeda* the valves are broad and short apically (fig. D). However, the external characters mentioned above appear to be quite diagnostic at least with the specimens available for study.

It is interesting to note that on three separate occasions (Alamogordo and White Sands, New Mexico, and 9 miles west of Sierra Blanca, Texas) the two species *M. obliterata* and *M. tenuicollis* were collected together at identical locations.

All specimens listed above are in The Ohio State University insect collection and the Florida State Collection of Arthropods, except for the two paratypes of *M. tenuicollis* from Arizona which are deposited in the California Academy of Sciences collection.

LITERATURE CITED

- Casey, Thomas L. 1912. A revision of the American genera of the tenebrionid tribe Asidini. Mem. Col., vol. 3, p. 70-214.
- Champion, George C. 1892. Biologia Centrali-Americana, Insecta, Coleoptera (Supplement to Heteromera), vol. 4, pt. 1, p. 477-524.
- Horn, George H. 1894. The Coleoptera of Baja California. Proc. Calif. Acad. Sci., ser. 2, vol. 4, p. 302-449.
- Pallister, John C. 1954. The tenebrionid beetles of north central Mexico collected on the David Rockefeller Mexican expedition of 1947 (Coleoptera: Tenebrionidae). American Museum Novitates, No. 1697, p. 1-55.