

ON THE GENUS *ABUTILONEUS* BRIDWELL (COLEOPTERA: BRUCHIDAE)

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The genus *Abutiloneus* Bridwell was erected in 1946 for the new species *idoneus* Bridwell described in the same paper. The generic description was indicated only by collective key couplets and a very short description of the species. No illustrations were included.

Bridwell was apparently uncertain whether *idoneus* was the same as a species described from Mexico by Sharp (1885) as *Bruchus flavicornis*. Recent comparison of a male and a female from the type series of *flavicornis* with the holotype of *idoneus* confirmed that the two species are identical, thus *idoneus* becomes a junior synonym of *flavicornis*.

The purpose of this paper is to give an extended description of the type-species with illustrations of diagnostic characters. This should assist future workers in the identification of the species and genus, and in its placement in the classification of the Bruchidae.

Genus *Abutiloneus* Bridwell

Abutiloneus Bridwell, 1946:55

Type-species: *Abutiloneus idoneus* Bridwell, 1946:55 (By monotypy.)
= *Bruchus flavicornis* Sharp, 1885:480.

Since only the one known species is representative of the genus, a description of the species will also serve as a description of the genus at this time.

Abutiloneus flavicornis (Sharp), NEW COMBINATION

Bruchus flavicornis Sharp, 1885:480; Schaeffer, 1907:296.

Acanthoscelides flavicornis (Sharp): Blackwelder, 1946:759.

Abutiloneus idoneus Bridwell, 1946:55. (NEW SYNONYMY.)

Color.—Body black, densely clothed above with glossy, hairlike, ochreous scales, below and on pygidium with similar silvery gray scales. Antennae, labrum, labial and maxillary appendages, and all legs bright yellow.

Head (fig. 1).—Short and broad; interocular distance equal to width of eye; frons densely, finely punctate, sparsely clothed with gray hairs; frontal carina obsolete but marked by an impunctate line; vague transverse sulcus between upper limits of eyes; frontoclypeal suture arcuate, depressed; clypeolabral suture nearly straight; labrum subtriangular; eyes deeply cleft by setose vertical sulcus above bases of antennae; postocular lobe represented by narrow fringe of setae; antennae similar in the two sexes (fig. 5).

Prothorax (fig. 2).—Disk campanulate, sparsely punctate, each puncture bearing a recumbent seta, surface densely punctulate between punctures; basal margin with median lobe covering base of scutellum; prosternum triangular; front coxae contiguous apically; front legs not modified.

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Meso- and metathorax.—Elytra (fig. 2) short and broad, arcuate laterally; striae well marked, obscurely punctate, nearly evenly spaced throughout length; first and second striae slightly bent laterad at bases; striae 2 to 5 each with small, black, setiferous tubercle at base; scutellum rectangular, slightly longer than wide; mesepimeron reduced to small, triangular, dorsal sclerite by posterior margin of mesepisternum; mesepimeron and mesepisternum finely punctulate; posterior legs (fig. 10, a & b) with femora attenuate basally, expanded medially and constricted apically, ventral margin devoid of carinae or serrulations, sometimes with minute denticle at $\frac{1}{4}$ distance from apex (fig. 10b); tibia bent basally, apex with 4 to 5 teeth externally, ventral spur short, slender and acute, tarsi normal.

Abdomen.—First ventral segment not modified, nearly twice length of remaining 4 segments in male, $1\frac{1}{2}$ times as long in female; fifth ventral segment in male nearly divided by apex of pygidium, only shallowly emarginate in female; pygidium (figs. 3 & 4) convex in both sexes, strongly bent under in male.

Male genitalia (figs. 6, 7, 8, 9).—Parameres flattened, usually crossed apically, apex with slender fleshy lobe arising from inner margin (fig. 9); ventral strut sinuate; median lobe clavate in ventral view, deeply emarginate at apex, lateral apical processes enclosing base of ogival ventral valve; aedeagal apodemes expanded into hoodlike, thinly sclerotized basal lobe; internal sac armed with paired clusters of fine spicules near apex of median lobe, a pair of dark spines at middle and a pair of longer spines near base; median lobe in lateral view arcuate, slightly expanded near apex; ventral valve falcate in lateral view.

Female genitalia without discernible diagnostic characteristics.

Length of body, 1.5 to 1.8 mm.; width, 1.0 to 1.2 mm.

Type specimens of *idoneus* in collection of the U.S.N.M. Type specimens of *flavicornis* in the British Museum.

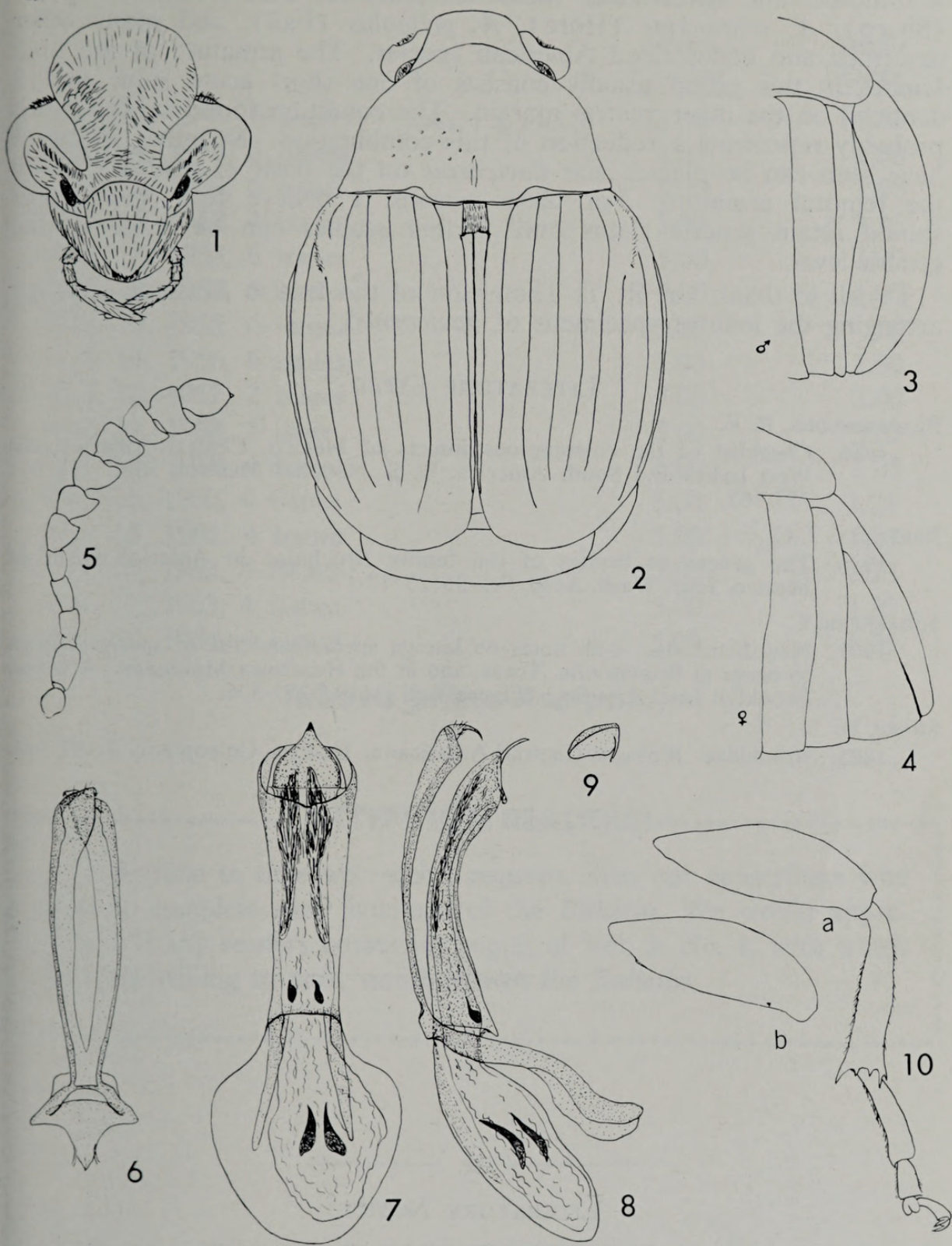
DISCUSSION

The key characteristics leading to the genus and the species description of *idoneus* may be found in Bridwell's paper (1946). The type locality of *idoneus* is Brownsville, Texas, and additional paratype localities are San Diego and Corpus Christi, Texas, and Guerrero, Coahuila, and Reynosa, Tamaulipas, Mexico. The type locality of *flavicornis* is Guanajuato, Guanajuato, Mexico. The specimens Schaeffer correctly listed as *flavicornis* from Brownsville and San Diego, Texas, are probably the same as those designated by Bridwell as paratypes of *idoneus* from the same localities.

Two of the final three key characters which Bridwell used to distinguish *Abutiloneus*, "elytra with striae 5 and 6 abbreviate at apex, hind femora entirely without carinae or denticles beneath," are variable. The striae in *Abutiloneus* are all abbreviated to some extent (fig. 2) and are variable in their comparative lengths. Differences are noted in this character even in the right and left elytra of several paratype specimens of *idoneus*.

While the hind femora of *Abutiloneus* are entirely without carinae, several specimens examined (including the specimens of *flavicornis*), contrary to the statement in the key, do possess a minute denticle (fig. 10b) visible with 120X magnification, but others are devoid of any armature.

In the 7 paratype males of *idoneus* dissected, and in the specimen of *flavicornis* examined, no variation in the form or placement of genital armature was detected. Apparently, in this species, as in most of the Bruchidae, the male genitalia will provide the most reliable characters for identification at the species level. Whether genitalia will be critical in generic delimitation remains to be seen. In external appearance,



FIGURES 1-10, *Abutiloneus flavicornis* (Sharp). 1—Head, cephalic aspect. 2—Body, dorsal aspect. 3—Pygidium, male, lateral aspect. 4—Pygidium, female, lateral aspect. 5—Left antenna. 6—Parameres, dorsal aspect. 7—Median lobe, ventral aspect. 8—Median lobe and tegmen, lateral aspect. 9—Right paramere, caudal aspect. 10—Posterior leg; a, left leg, lateral aspect; b, right femur, inner face.

flavicornis resembles the members of a large complex of very small acanthoscelidine Bruchidae which includes *Acanthoscelides aequalis* (Sharp), *A. schrankiae* (Horn), *A. griseolus* (Fall), and many other described and undescribed American species. The armature of the hind femora in this group usually consists of one short acute spine and 2 denticles on the inner ventral margin. The condition found in *flavicornis* probably represents a reduction of this combination. No other species I have seen can be placed near *flavicornis* on the basis of genitalia or on the femoral armature. For these reasons, I believe that *Abutiloneus* should retain generic status until further studies can be made at the generic level.

I wish to thank Dr. R. T. Thompson of the British Museum staff for arranging the loan of specimens of *flavicornis*.

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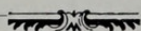
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LITERATURE NOTICE

NAVAHO INDIAN ETHNOENTOMOLOGY. By L. C. Wyman and F. L. Bailey. Univ. New Mexico Publ. Anthropology No. 12, 158 pp., illus. 1964.—An interesting account of the importance and use of insects in Navaho mythology, medicine, and daily life. The Navaho system of insect classification and nomenclature is presented and explained. Some names are very odd; among the beetles are ear traveler for carabid, rain beetle for cerambycid, corn louse for coccinellid, fire bug for lampyrid, big rock beaver for scarabaeid, fast running bug for cicindelid, soil blower for curculionid, and urine squirter for tenebrionid.



Kingsolver, John M. 1965. "On the Genus *Abutiloneus* Bridwell (Coleoptera: Bruchidae)." *The Coleopterists' Bulletin* 19(4), 125–128.

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