

**TWO NEW SPECIES OF *ASIDOPSIS* CASEY FROM ARIZONA AND  
CHIHUAHUA, MEXICO (COLEOPTERA: TENEBRIONIDAE: ASIDINI)**

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**Abstract**

*Asidopsis olsoni* **new species** from Arizona, U.S.A. and *A. humeralis* **new species** from Chihuahua, Mexico (Pimeliinae: Asidini) are described. The distinctive characters of these new species in relation to others of the genus are discussed. Habitus photographs and illustrations of antennae and male genitalia are included.

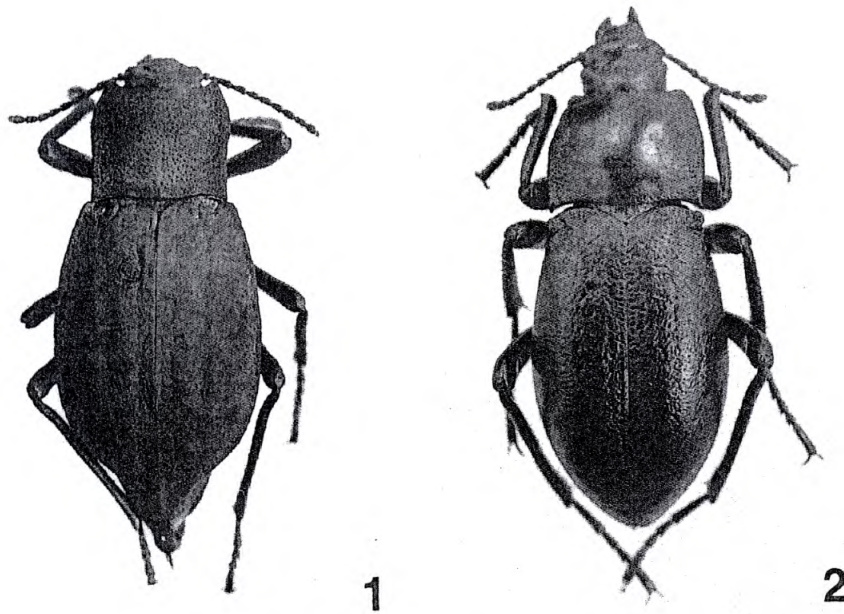
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The genus *Asidopsis* was described by Casey (1912:185) to include 24 species, 19 of which were described by him in the same paper. He recognized two species described by Say and three described by Horn and designated *Asida opaca* Say as type species of the genus (Casey 1912:77). Since that time, only one species, *Asidopsis divaricata* Blaisdell 1923, has been added. All of the species are found in southwestern and central western United States and as far south as Durango and Baja California in Mexico. Casey presented a key (Casey 1912:186) dividing the genus into five groups. The first couplet of the key separates those species with distinct costuliform elytral margins (*Asidopsis opaca*, group IV and *A. planata*, group V) from those lacking a costuliform elytral margin except at the very base or, at least, well short of the middle.

The following two species appear to belong to Casey's *Asidopsis quadricollis* group I, in fact both bear a striking resemblance to *A. macra* Horn (see discussion below). Casey (1912:188) intimated that his group I could be considered a separate genus since the form of the body (slender, with pronotum narrower than abdomen and with acute basal pronotal angles) is so distinctive. The following two new species appear to belong to that group even though one has well developed costate elytral margins and the other does not. Casey's key needs to be modified to indicate that difference when a badly needed revision is undertaken.

The senior author has examined all of the types of *Asidopsis* (except those of Say, which are presumed lost) and has studied hundreds of specimens belonging to the genus. At least one synonym is clearly evident: *Asidopsis woodgatei* Casey 1912 is a synonym of *A. manicata* (Horn 1878) thus rendering Casey's group III unnecessary.

No illustration or description of genital structures in *Asidopsis* have been done. In this paper we provide the first illustrations and descriptions of male genitalia for two species of *Asidopsis* using the terminology of Jeannel and Paulian (1944). For the male genitalia, we found the following characters common to these two new species, which probably are common characters for all the species of the genus: rods of sternum IX "V"-shaped, distance between rods not exceeding width of aedeagus. Lateral styles of tegmen approximate distally, with apex narrow, anteroventral margin bisinuate, folding dorsolater-



**Figs. 1–2.** 1) *Asidopsis olsoni* n. sp., dorsal habitus, holotype male; 2) *Asidopsis humeralis* n. sp., dorsal habitus, holotype male.

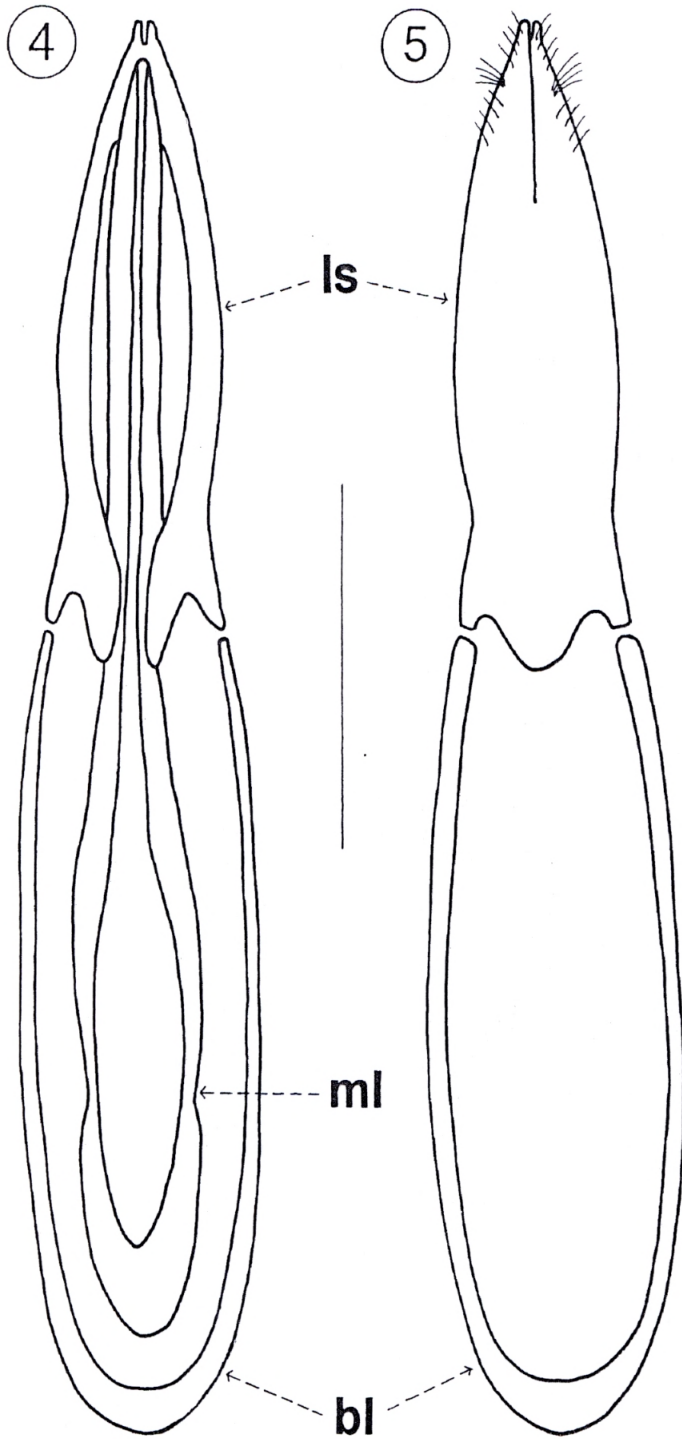
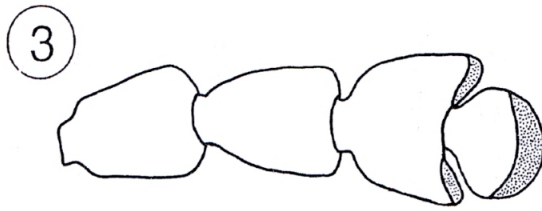
ally over median lobe, and with a ventral subapical tuft of setae. Median lobe sheath-shaped, with apex rounded and ventrally inclined; median lobe one third the width in respect to lateral styles of tegmen.

*Asidopsis olsoni* Triplehorn and Flores, **new species**  
(Figs. 1, 3–5)

**Description.** Holotype, male. Oblong-oval, flattened, piceous, entire dorsal surface dull and microreticulate (Fig. 1). Head with transverse impression behind clypeus; clypeus swollen and with truncate anterior margin; genae prominently raised above antennal insertions, coarsely and densely punctured; eyes reniform, dorsal lobe slightly larger than ventral; antennae almost attaining pronotal base, terminal segment tomentose at apex (Fig. 3), subapical segment with tomentose patches on both sides of apex (Fig. 3); mentum transverse, apical margin broadly emarginate; terminal segment of maxillary palpus large, scalene. Pronotum slightly longer than broad (Fig. 1), widest before middle, lateral marginal bead thin, subparallel, sinuate in basal half, apical margin deeply emarginate, angles acute and prominent, basal margin feebly bisinuate, angles acute but not prominent, surface discretely punctured medially, punctures becoming larger and somewhat rugose laterally (Fig. 1). Elytra broad, flattened, uniformly subconvex from side to side, lateral margins strongly costate, reflexed at base and almost attaining apex, gradually disappearing on apical declivity (Fig. 1); epipleura poorly defined basally until about middle of third visible abdominal sternum from which point it is strong and sharp to elytral apex, entire surface dull with very small granules separated by several times

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**Figs. 3–5.** *Asidopsis olsoni* n. sp. 3) Antennomeres 8–11, dorsal view, stippling depicts distribution of sensory patches; 4) aedeagus, dorsal; 5) aedeagus, ventral. Abbreviations: bl, basal lamina of tegmen, ls, lateral styles of tegmen, ml, median lobe. Scale bar = 1 mm.



their diameters. Hypomeron and prosternum uniformly finely, deeply and sparsely punctate; prosternal process strongly convex between procoxae, its apex broad and truncate; mesosternum coarsely and rugosely granulate, anterior face not excavate; coxae all widely separated; intercoxal margin of basal abdominal sternum rounded; abdominal sterna finely but not densely granulate except at apex of terminal sternum where granules are closer together. Legs very slender, coarsely and densely punctured. Length: 14.5 mm; width: 6.7 mm.

Male genitalia. Rods of sternum IX nearly touching at basal half. Dorsal membrane of proctiger with setae on distal quarter. Lateral styles of tegmen with anteroventral margin strongly bisinuate, widest at middle (Fig. 5), with setae on distal quarter of ventral surface (Fig. 5). Median lobe proximally broadened (Fig. 4).

**Variation.** All four males of the type series are very similar in size, shape and luster. The female is slightly longer and broader (L: 15.5 mm; W: 7.2 mm) but otherwise not significantly different from the males.

**Types.** Holotype, male: Arizona, Pima County, Kitt Peak, 3-VII-1984, C. A. Olson (USNM, Smithsonian Institution, Washington, D.C.). Four paratypes: one male same data as holotype (UAIC, University of Arizona, Tucson), two males same locality as holotype except 20-VII-1984 (OSUC, Ohio State University, Columbus OH), one female same locality as holotype except 22-X-1982 (UAIC). These specimens were likely collected in pitfall traps (C. A. Olson, pers. comm.)

**Etymology.** We take pleasure in naming this interesting species in honor of Carl A. Olson, who collected the type series.

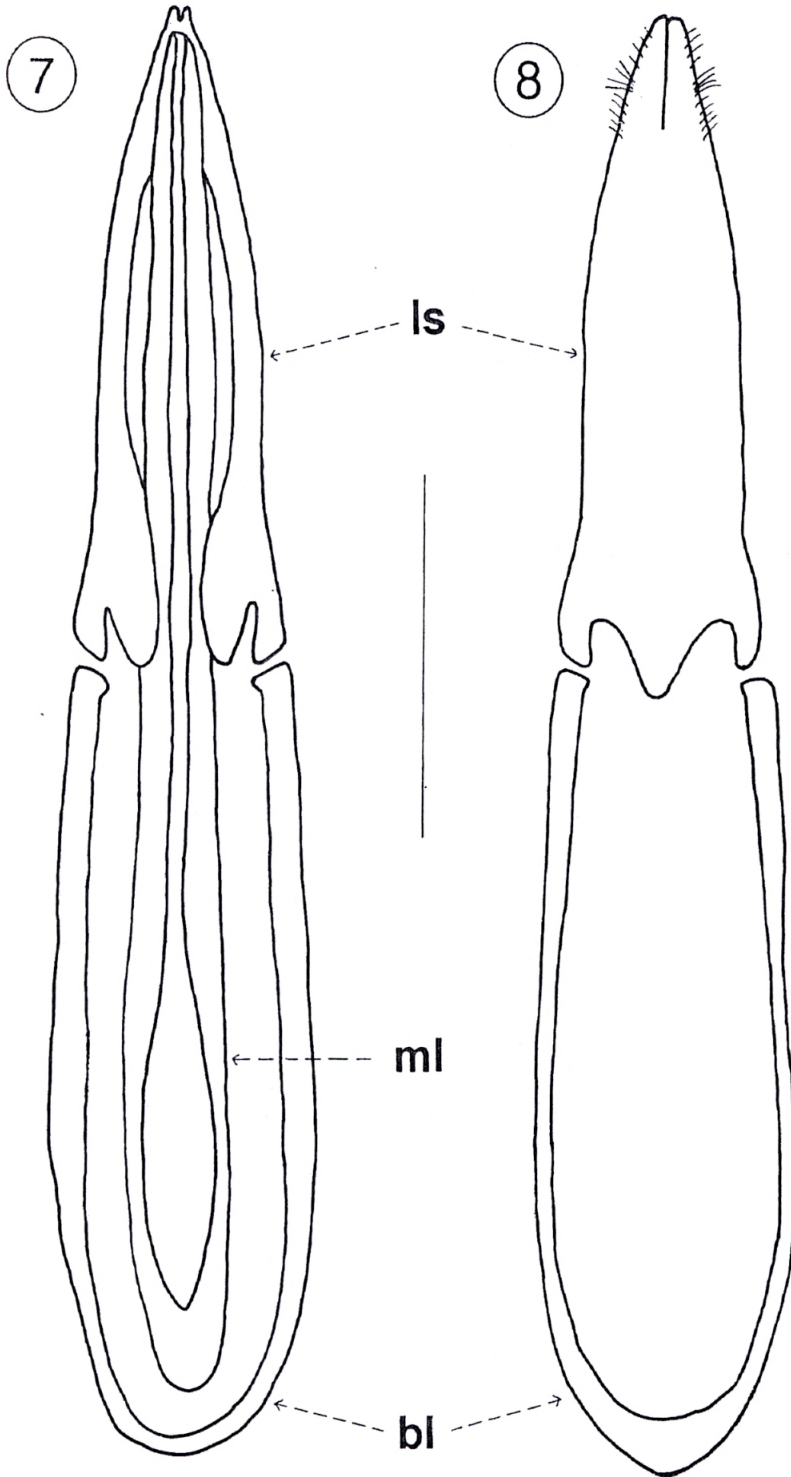
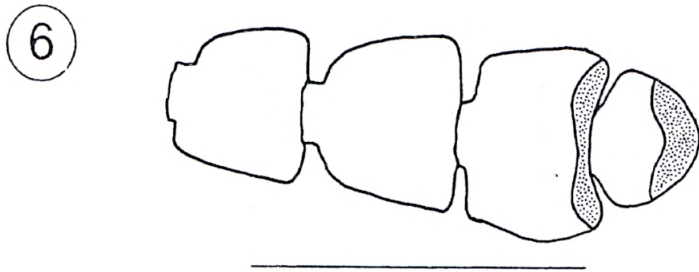
**Discussion.** *Asidopsis olsoni* superficially resembles *A. macra* (Horn) in general body configuration, especially in the shape of pronotum, which is longer than broad (in all other species of *Asidopsis*, the pronotum is broader than long). It differs in the distinct cariniform lateral margins of the elytra, dull and minutely granulate elytral surface, and the punctation of the pronotum (rugose laterally and basally).

*Asidopsis humeralis* Triplehorn and Flores, **new species**  
(Figs. 2, 6–8)

**Description.** Holotype, male. Oblong-oval, convex, piceous, dorsal surface shining (Fig. 2). Head with triangular impression behind clypeus which is swollen and with truncate anterior margin; genae prominently raised above antennal insertions, coarsely but not densely punctured, punctures well-separated, becoming smaller posteriorly; eyes narrowly reniform, dorsal lobe slightly larger than ventral; antennae short, stout, extending only slightly behind middle of pronotum; terminal segment tomentose at apex (Fig. 6), subapical segment with continuous tomentose band (Fig. 6); mentum cordiform, apical margin shallowly emarginate; terminal segment of maxillary palpus large, scalene. Pronotum slightly broader than long (Fig. 2), widest at middle, lateral margins thick, subparallel, not reflexed, apical margin deeply emarginate, angles acute and prominent, basal margin strongly bisinuate, angles acute, prominent, overlapping base of elytra, surface minutely and sparsely punctate medially, punctures becoming larger and somewhat rugose laterally (Fig. 2). Elytra broad, convex, lateral margins smoothly rounded from side to side, humeral angles abruptly narrowly expanded, receiving acute pronotal

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**Figs. 6–8.** *Asidopsis humeralis* n. sp. **6)** Antennomeres 8–11, dorsal view, stippling depicts distribution of sensory patches; **7)** aedeagus, dorsal; **8)** aedeagus, ventral. Abbreviations: bl, basal lamina of tegmen, ls, lateral styles of tegmen, ml, median lobe. Scale bar = 1 mm.



angles (Fig. 2); epipleura not evident until about middle of third visible abdominal sternum; entire surface shining, finely and sparsely punctate, propleura smooth, almost impunctate except along margins; prosternum finely, shallowly and rugosely punctate; prosternal process strongly convex between procoxae, the apex narrowing posteriorly; mesosternum shallowly, rugosely punctate, anterior face not excavate; coxae all widely separated; intercoxal margin of basal abdominal sternum rounded; abdominal sterna shallowly, finely punctured with faint longitudinal wrinkles, terminal sternum more densely punctured, forming horizontal wrinkles. Length: 15.6 mm; width: 6.2 mm.

Male genitalia. Rods of sternum IX nearly touching at basal third. Dorsal membrane of proctiger with setae on distal 1/5. Lateral styles of tegmen with anteroventral margin bisinuate, widest at base (Fig. 8), with setae on distal quarter of ventral surface (Fig. 8). Median lobe not broadened proximally (Fig. 7).

**Variation.** The four paratypes are not much different from the holotype except for the size. The female is 17.3 mm in length and 7.0 mm in width. The same measurements for the male paratypes are: 13.0–13.8 mm in length and 5.6–6.0 mm in width.

**Types.** Holotype, male: Mexico, Chihuahua, Sierra Madre Occidental, Madera, 31-VII-1990, 2,000 m, leg. Heinz (SMNS, Staatliches Museum für Naturkunde, Stuttgart, Germany). Four paratypes same data as holotype: one female (SMNS), one male (USNM, Smithsonian Institution, Washington, D.C.), two males (OSUC, The Ohio State University, Columbus OH).

**Etymology.** The name refers to the abruptly expanded humeral angles of the elytra.

**Discussion.** *Asidopsis humeralis* even more closely resembles *A. macra* (Horn) than does *A. olsoni*. In addition to the general body configuration, some specimens of *A. macra* have a suggestion of the expanded humeral angles of the elytra, but never as abruptly pronounced as in *A. humeralis*. In *A. humeralis*, the elytra are shiny and distinctly punctate and the disc of the pronotum is minutely and sparsely punctate; in *A. macra* the elytra are dull and impunctate and the disc of the pronotum is more coarsely and densely punctate.

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