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4.8. Plastoceridae Crowson, 1972

Marc A. Branham

Distribution. This family is composed of a single genus *Plastocerus* (= *Ceroplastus*) with two species. *Plastocerus angulosus* (Germar) is known from Turkey and Asia Minor, while *P. thoracicus* Fleutiaux is known from Southeast Asia (Lawrence 1991; Lawrence & Newton 1995).

Biology and Ecology. Nothing is known of the biology or ecology of this family and the females and immature stages are unknown.

Morphology, Adult Males (Figs. 4.8.1 A, B). Length 11–18 mm. Body elongate and more or less parallel-sided. Dorsal surfaces clothed with moderately long setae, especially on head and prothorax.

Head prognathous, subquadrate, posteriorly biemarginate, without transverse occipital ridge or median endocarina. Frontoclypeal region strongly, abruptly declined. Eyes entire, moderately large and strongly protuberant; finely facetted, without interfacetal setae. Antennal insertions widely separated, slightly raised, concealed or barely exposed from above. Frontoclypeal suture absent. Strongly transverse labrum free, visible, and well sclerotized. Antennae 11-segmented, unipectinate, with flattened rami extending from distal portions of antennomeres 3–10; scape elongate, pedicel short. Short mandible broader at base, strongly curved apically, with unidentate apex; mola and prostheca absent; long setae present on dorsal surface of mandibular base. Maxilla with galea and lacinia short, lightly sclerotized and pubescent; palp 4-segmented, with apical palpomere somewhat elongate and flattened, Labium with highly reduced, membranous ligula; palp 3-segmented, with apical palpomere slightly securiform. Gular sutures well separated; gula longer than wide. Corpotentorium absent. Cervical sclerites well-developed.

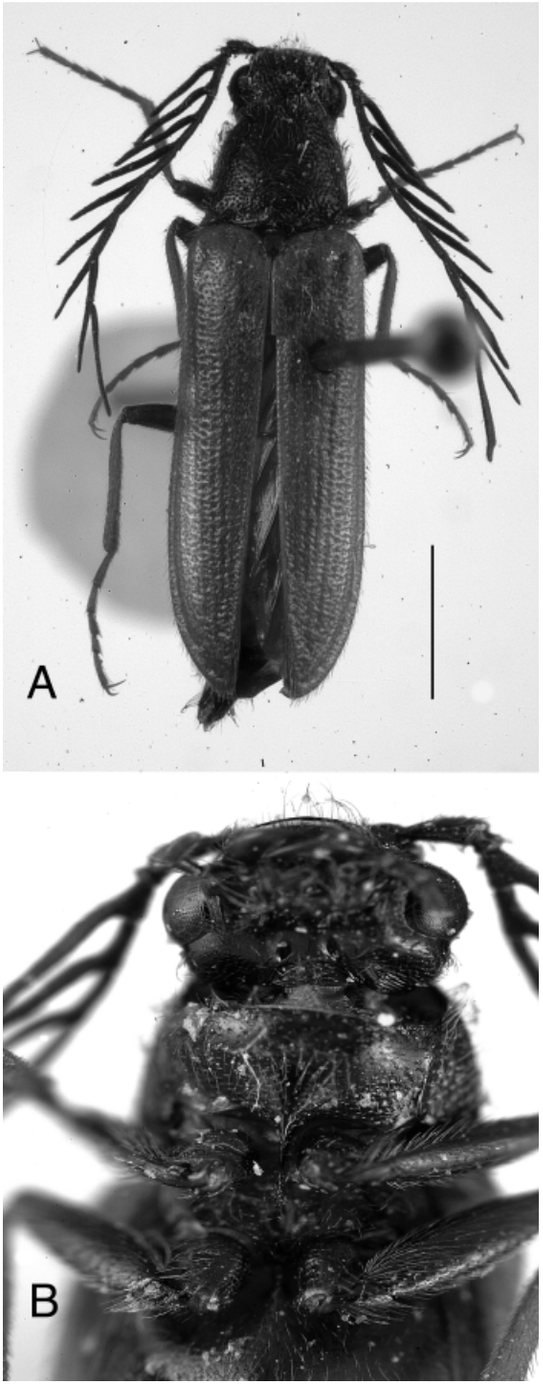

Fig. 4.8.1. *Plastocerus angulosus* (Germar), male. A, dorsal, line = 2.5mm; B. *P. angulosus*, prothorax, ventral view. (A, B © M. Branham)

Prothorax about 0.65–0.85 times as long as wide; widest at middle or posteriorly; sides sometimes slightly explanate; lateral carinae complete, simple, without raised margin; anterior angles not produced forward; posterior angles strongly acute;

posterior edge trisinuate. Promesothoracic interlocking mechanism weakly developed. Prosternum in front of coxae longer than shortest diameter of a coxal cavity, slightly convex, without paired carinae; anteriorly truncate, without chin piece. Prosternal process complete, parallel–sided, slightly overlapping mesoventrite, apically acute. Procoxae projecting well below prosternum, without concealed lateral extensions. Trochantins broadly exposed and not fused to notum. Procoxal cavities transverse, very narrowly separated, externally broadly open, without narrow lateral extensions; internally open. Scutellar shield well developed, not abruptly elevated, posteriorly truncate. Elytra 2.6–2.9 times as long as combined width and 3.7–4.9 times as long as pronotum, without distinct puncture rows or reticulate sculpturing; apices conjointly rounded; epipleura very narrow, wider at base and apex. Mesoventrite separated by complete sutures from mesanepisterna, which are well separated from one another; anterior edge on same plane as metaventrite, without paired procoxal rests; mesoventral cavity small and shallow. Mesocoxae projecting. Trochantins exposed. Mesocoxal cavities contiguous, weakly defined, open laterally (partly closed by mesepimeron, and mesanepisternum). Metaventrite slightly convex, with long discrimen and no transverse suture; exposed portion of metanepisternum moderately elongate. Metacoxae contiguous, extending laterally to meet elytra; plates narrow but more or less complete. Metendosternite with lateral arms short, laminae absent, anterior process moderately long and anterior tendons approximate. Hind wing elongate with very short apical field containing a single anterior oblique sclerite; radial cell elongate with inner posterobasal angle more or less right; cross-vein r3 well developed and very slightly oblique; basal portion of RP very long; medial field with five free veins; MP_{3+4} with basal cross-vein and spur, joined by CuA_1 before forking; wedge cell well developed, apically truncate; anal lobe well developed but without distinct embayment. Legs long and simple; tibial spurs paired on all legs; tarsi 5-5-5, tarsomeres simple, without pubescent pads or membranous lamellae; pretarsal claws simple, without setae near base. Abdomen with seven ventrites (sternites III–IX), the first three of which are connate. Ventrite 1 not much longer than 2, without intercoxal process. Spiracles located in pleural membrane, those on segment VIII functional. Anterior edge of sternite VIII without median strut. Anterior edge of sternite IX without spiculum gastrale. Tergite IX deeply emarginated. Tergite X well developed and free. Aedeagus trilobate, symmetrical; parameres individually articulated, with slight outward hooks; penis with paired anterior struts. [Lawrence *et al.* 1999]

Phylogeny and Taxonomy. The family Plastoceridae was proposed by Crowson (1972) for *P. angulosus* (Germar) and was placed in Cantharoidea. Lawrence and Newton (1995) transferred the family to Elateroidea along with the other "cantharoid" families. The *Plastocerus* concept used by Crowson (1972) and Lawrence & Newton (1995) is based upon the original concept of Schaum (1852), and does not include the North American species once placed by LeConte (1861) in *Plastocerus*, which now belong to *Octinodes* (Elateridae: Cebrioninae). Also excluded from the family are the diverse genera placed in here by Schwarz (1907) and currently included in Eucnemidae: Phyllocerinae (*Phyllocerus* Serville and *Cephalodendron* Latreille) or in various subfamilies of Elateridae (*Aphricus* LeConte, *Aplastus* LeConte, *Diplophoenicus* Candèze, *Dodecacius* Schwarz, *Enisonyx* Horn, *Euplastius* Schwarz and *Euthysanius* LeConte).

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4.9. Family Drilidae Blanchard, 1845

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Distribution. Drilidae is a small elateroid family with approximately 100 species classified in only six genera: *Drilus* Olivier (25 spp.), *Euanoma* Reitter (8 spp.), *Malacogaster* Bassi (10 spp.), *Paradrilus* Kiesenwetter (1 sp.), *Pseudeuanoma* Pic (3 spp.), and