

**AXIOCERYLON WATROUSI: A NEW SPECIES OF
ACULOGNATHOUS CERYLONIDAE
FROM THE PHILIPPINES
(COLEOPTERA: CLAVICORNIA)**

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Abstract.—*Axiocerylon watrousi* NEW SPECIES (Coleoptera: Cerylonidae) is described from Mt. Makiling, Laguna Province, the Philippines. A diagnosis, description, and habitus drawing are given.

Key Words.—Insecta, *Axiocerylon watrousi*, Coleoptera, Cerylonidae, aculognathy, Philippines

A series of minute, aculognathous beetles collected in the Philippines were determined to be an undescribed species of the cerylonid genus *Axiocerylon* Grouvelle (1918). This species belongs to the group circumscribed by Besuchet & Ślipiński (1988) with six segmented antennae, which includes the species formerly assigned to *Paraxiocerylon* (Heinze 1944).

Little is known about *Axiocerylon* natural history. Until recently, no cerylonid species were associated with slime-molds (Myxomycetes or Mycetozoa). Ślipiński (1988) and Newton & Stephenson (1990), however, have recorded such associations in *Cerylon histeroides* (Fabr.) and *Spinocerylon mirabilis* Ślipiński. Larvae of *C. histeroides*, which have piercing-sucking mouthparts, were found by Ślipiński (1988) to feed on plasmodia of host slime molds, "raising the possibility that other cerylonids with similar mouthparts do the same" (Newton & Stephenson 1990: 200). Due in part to the cryptic habits of slime-mold plasmodia (Martin & Alexopoulos 1969), records of their beetle associates are sparse (Lawrence & Newton 1980, Blackwell 1984, Newton 1984, Wheeler 1984a, 1984b, 1987, Lawrence 1989). This is particularly so for most of the small-sized myxomycetes that occur in decomposing leaf litter, like that from which our specimens of *Axiocerylon watrousi* were collected. It is highly speculative to suggest such an association for this species, yet it is a promising lead for further field work on its biology.

AXIOCERYLON WATROUSI ŚLIPIŃSKI, WHEELER & MCHUGH NEW SPECIES
(Fig. 1)

Types.—Holotype (sex undetermined) deposited Cornell University Insect Collection; data: PHILIPPINES, LAGUNA PROVINCE: Mt. Makiling, 4 km SE of Los Banos. Paratypes (sex undetermined) deposited Cornell University Insect Collection (8), Institute of Zoology, Polish Academy of Sciences (2), Museum d'Histoire Naturelle, Genève (3), Museum Nationale d'Histoire Naturelle, Paris (1), Muzeum Termesztudományi, Budapest (1), Museum of Comparative Zoology at Harvard University (1); data: specimens were taken at same locality as

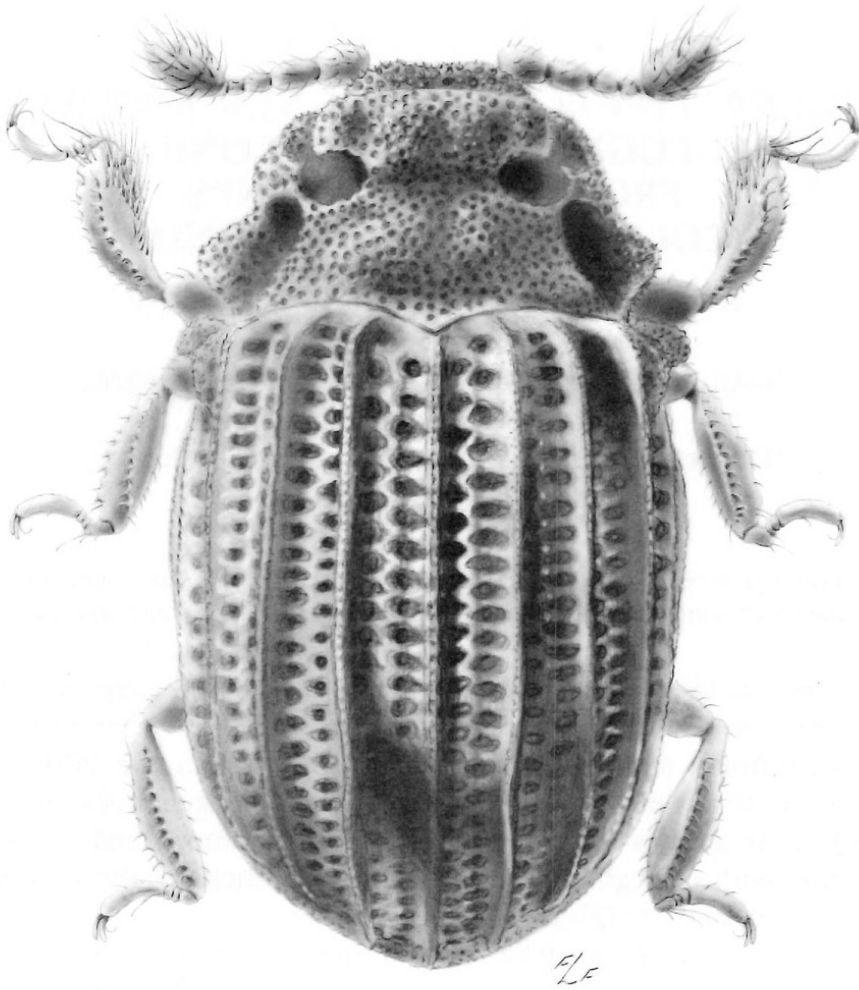


Figure 1. *Axiocerylon watrousi* Ślipiński, Wheeler & McHugh. Dorsal habitus. Mt. Makiling, Philippines.

holotype on 7–9 Apr 1977, by L. E. Watrous sifting forest litter, leaf litter or under bark.

Description. — Body brown, surface feebly shiny; pronotal margins and elytral intervals with vestiture of microsetae scarcely visible under $100\times$ magnification. Head: mouthparts piercing-sucking type; anterior clypeal margin slightly pointed medially, shallowly emarginate laterally, almost rounded; punctures of the frons and vertex about as large as eye facets, subcontiguous, interspaces densely reticulate; eyes large, narrowing toward venter, with four or five rows of moderately coarse facets. Antenna six-segmented; antennomere II $1.4\times$ as long as III; antennomeres III:IV:V = $2.65:1.0:1.25$; antennal club longer than three preceding segments combined. Pronotum: $0.6\text{--}0.7\times$ as long as wide; anterior and posterior raised portions separated by transverse, shallow groove; groove punctate in median narrow part, becoming wider and smooth laterally meeting deep lateral “pores”; anterior raised portion subdivided into two parts by shallow transverse impression, anterior part weakly convex, faintly emarginate medially, posterior part with four transversely arranged protuberances; posterior raised portion shallowly divided medially by longitudinal impression, regularly sloping laterally and posteriorly; all tubercles punctate as head; lateral margin with distinct posterior lobe, gradually narrowing anteriorly; hind angles subacute. Elytra: $1.15\text{--}1.20\times$ as long as wide, $1.9\text{--}2.0\times$ as long as pronotum; humeral lobe narrow, rounded apically; each elytron with four carinae, carina I complete from base to apex, II shorter than III, both incomplete apically, 4th elytral row along carina II consists of 25–27 punctures; stria punctures about $2\times$ as large as pronotal punctures, separated longitudinally by 0.5 diameter. Venter: prosternum rounded anteriorly, laterally deeply foveolate; prosternal process

weakly acuminate apically; mesosternum bifoveolate; metasternum about as long as ventrite I; femoral ridges well developed; ventrite I shallowly concave anteromedially. Protibia wide and dentate at outer margin.

Diagnosis.—*Axiocerylon watrousi* belongs to a distinct group of species characterized by the following combination of characters: antennae six segmented, pronotum with only the posterior lobe well developed, median lobe of the pronotum "absent," formed by a part covering partially the lateral secretory pit and not exceeding the pronotal outline, and the eyes well-developed and with numerous facets. *Axiocerylon watrousi* keys to *burckhardti* Besuchet & Ślipiński in the key in Besuchet & Ślipiński (1988: 905). In the Malaysian (Sabah) species *burckhardti* antennomere II is $1.4\times$ as long as wide, and antennomere III $1.6\times$ as long as wide. In *watrousi*, antennomere II is $2.2\times$ as long as wide and III $2.7\times$ as long as wide.

Etymology.—This species is named for Larry E. Watrous, who collected all known specimens of the species.

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LITERATURE CITED

- Besuchet, C. 1972. Les Coléoptères Aculognathides. *Rev. Suisse Zool.*, 79: 99–145.
- Besuchet, C. & S. A. Ślipiński. 1988. A review of *Axiocerylon* Grouvelle (Coleoptera: Cerylonidae) with descriptions of new species. *Rev. Suisse Zool.*, 95: 901–928.
- Blackwell, M. 1984. Myxomycetes and their arthropod associates. pp. 67–90. In Wheeler, Q. & M. Blackwell (eds.). *Fungus-insect relationships*. Columbia University Press, New York.
- Grouvelle, A. 1918. Coleoptera of the families Ostomidae, Monotomidae, Colydiidae and Notiophygidae from the Seychelles and Aldabra Islands. *Trans. Entomol. Soc., London*, 1918 (I–II): 2–56.
- Heinze, E. 1944. Neue und wenig bekannte Colydiidae (Coleopt.) aus dem ungarischen National-Museum. *Ann. Hist.-Nat. Mus. Nat. Hungarici*, 37: 1–24.
- Lawrence, J. F. 1989. Mycophagy in the Coleoptera: feeding strategies and morphological adaptations. pp. 1–23. In Wilding, N., N. M. Collins, P. M. Hammond & J. F. Webber (eds.). *Insect-fungus interactions*. Academic Press, London.
- Lawrence, J. F. & A. F. Newton Jr. 1980. Coleoptera associated with fruiting bodies of slime molds (Myxomycetes). *Coleopt. Bull.*, 34: 129–143.
- Martin, G. W. & C. J. Alexopoulos. 1969. *The Myxomycetes*. University of Iowa Press, Iowa City, Iowa.
- Newton, A. F. Jr. 1984. Mycophagy in Staphylinoidea (Coleoptera). pp. 302–353. In Wheeler, Q. & M. Blackwell (eds.). *Fungus-insect relationships*. Columbia University Press, New York.
- Newton, A. F. Jr. & S. J. Stephenson. 1990. A beetle/slime mold assemblage from northern India (Coleoptera; Myxomycetes). *Oriental Insects*, 24: 197–218.
- Ślipiński, S. A. 1988. Revision of the Australian Cerylonidae (Coleoptera: Cucujoidea). *Ann. Zool.*, 42: 1–74.
- Wheeler, Q. D. 1984a. Evolution of slime mold feeding in Leiodidae. pp. 446–477. In Wheeler, Q. D. & M. Blackwell (eds.). *Fungus-insect relationships*. Columbia University Press, New York.

- Wheeler, Q. D. 1984b. Associations of beetles with slime molds: ecological patterns in the Anisotomini (Leiodidae). *Bull. Entomol. Soc. Am.*, 30: 14-18.
- Wheeler, Q. D. 1987. A new species of *Agathidium* associated with an "epimycetic" slime mold plasmodium on *Pleurotus* fungi (Coleoptera: Leiodidae-Myxomycetes: Physarales-Basidiomycetes: Tricholomataceae). *Coleopt. Bull.*, 41: 395-403.

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