

The Scopelocheirid Genus *Aroui* (Crustacea: Amphipoda: Lysianassoidea) with Notes on the Association between Scopelocheirid Amphipods, Cassid Gastropods and Spatangoid Echinoids

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ABSTRACT. Formerly *Aroui* was a monotypic scopelocheirid genus known only from the Mediterranean Sea. The type species, *Aroui setosus* Chevreux, is redescribed. It is shown that a neotype, recently established for this species, is invalid, and a lectotype is selected from syntype material in the Muséum National d'Histoire Naturelle, Paris. A second species, *Aroui hamatopodus*, is described, based on widespread collections from the Australian continental shelf and slope. The genus is rediagnosed and distinguished from all other scopelocheirids by two autapomorphic character states. Evidence is presented which suggests that scopelocheirids are very primitive scavengers, and that there is a three-way association between cassid gastropod predators, scopelocheirid amphipod scavengers and their common prey, spatangoid echinoids. An hypothesis is presented which suggests that scopelocheirid scavengers may have evolved by the early Tertiary and that the association involving cassid gastropods and spatangoid echinoids may date from this time.

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Aroui setosus Chevreux, 1911 is well known from the works of Chevreux (1911) and Stroobants (1976). It is the type species of the genus *Aroui* Chevreux which until now was known only from the Mediterranean Sea. Although *Aroui* has been recognised by Stroobants (1976) and Bellan-Santini (1985) as closely related to *Scopelocheirus* Bate, the exact relationship has not been fully understood until now because *Aroui* has been monotypic. Among the extensive collections of lysianassoid amphipods from

Australian waters we have found only one species of scopelocheirid lysianassoid, a new species of *Aroui*, which is described below. This has allowed us to rediagnose *Aroui* and consider its relationship to *Scopelocheirus* and other scopelocheirid genera.

Stroobants apparently believed that *A. setosus* was represented by a holotype because she reported being unable to find "la type" in either the Muséum National d'Histoire Naturelle, Paris, (MNHN) or the Musée