

Eleven New Species and a New Genus of Diastylidae (Crustacea: Cumacea) from Australia and One New Species from Canada

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ABSTRACT. The shallow water cumacean fauna of Australia is relatively well known, particularly from the southern coasts. However, recent investigations in the collections of the Australian Museum and Museum Victoria have yielded 12 new species and one new genus of diastylid cumaceans, most from continental shelf and slope depths of Australia; one new species in Museum Victoria is from Canadian waters. The new genus *Austroleptostylis* is described, and the species *Leptostylis recalvastra* Hale, 1945 is transferred to it, creating the new combination *Austroleptostylis recalvastra* (Hale, 1945). The new species *Anchistylis halei* n. sp., *Diastylis kapalae* n. sp., *Diastylopsis incompta* n. sp. (from Canada), *Diastylopsis senta* n. sp., *Diastylopsis trisetosa* n. sp., *Dimorphostylis nordaustriana* n. sp., *Dimorphostylis roccatagliatai* n. sp., *Dimorphostylis triplicata* n. sp., *Makrokyllindrus eirmoacanthus* n. sp., *Paradiastylis berentsae* n. sp., *P. botanybayensis* n. sp., and *P. occidentaustralis* n. sp. are described. *Diastylopsis diaphanes* Zimmer, 1913 is transferred to *Litogynodiastylis* Gerken, 2001, creating the new combination *Litogynodiastylis diaphanes* (Zimmer, 1913), and *D. bosphorica* Băcescu, 1982 is transferred to *Diastyloides* Sars, 1900, creating the new combination *Diastyloides bosphorica* (Băcescu, 1982). The adult male and ovigerous female of *Austroleptostylis recalvastra* n. comb. are described. Keys to all Australian diastylid species are provided, as are global keys to all species of *Diastylopsis* and *Paradiastylis*.

KEYWORDS. Cumacea; Diastylidae; Australia; Canada; *Anchistylis*; *Austroleptostylis*; *Diastylis*; *Diastyloides*; *Diastylopsis*; *Dimorphostylis*; *Leptostylis*; *Litogynodiastylis*; *Makrokyllindrus*; *Paradiastylis*.

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Cumaceans are small crustaceans that live on the seafloor, common in muddy and sandy environments. There are currently eight recognized families of Cumacea, seven of which are recorded from Australian waters. Herbert Hale described many species in an important series of works from 1928–1951. Since 1951, there has been significant work on the Australian Bodotriidae (Tafe & Greenwood, 1996), Gynodiastylidae (Gerken, 2001), Lampropidae

(Gerken, in prep.), Pseudocumatidae (Akiyama & Gerken, 2011), Ceratocumatidae (Petrescu, 2004), and Nannastacidae (Petrescu, 2006), but no work on the Diastylidae. As part of a Geddes Collections Fellowship and a Museum Victoria Fellowship, the collections of the Australian Museum and Museum Victoria were investigated for novel taxa in the cumacean family Diastylidae.