A revision of Antarctic and some Indo-Pacific apodid sea cucumbers (Echinodermata: Holothuroidea: Apodida)


**Keywords**

*Achiridota* Clark, 1908; *Chiridota* Eschscholtz, 1829; *Kolostoneura* Becher, 1909; *Myriotrochus* Steenstrup, 1851; *Paradota* Ludwig & Heding, 1935; *Prototrochus* Belyaev & Mironov, 1982; *Scoliodotella* Oguro, 1961; *Scoliorhapis* Clark, 1946; *Sigmodota* Studer, 1876; *Taeniogyrus* Semper, 1867; *Trochodota* Ludwig, 1891

**Author keywords**

Achiridota; Chiridota; Kolostoneura; Myriotrochus; Paradota; Prototrochus; Scoliorhapis; Scoliodotella; Sigmodota; Taeniogyrus; Trochodota; emended diagnoses; new genus; new species; Antarctic; Bellingshausen Sea; Indo–Pacific; Prydz Bay; Ross Sea; Scotia Sea; Weddell Sea.

**Abstract**

Eight new apodid species from Antarctica are described: *myriotrochids Achiridota smirnovi* sp. nov., *Myriotrochus nikiae* sp. nov., *Prototrochus linseae* sp. nov., *Prototrochus bamesi* sp. nov., and *chiridotids Kolostoneura griffithsi* sp. nov., *Scoliorhapis bipearlii* sp. nov., *Scoliorhapis massini* sp. nov., *Taeniogyrus prydzi* sp. nov. Genera *Scoliorhapis* H. L. Clark, *Taeniogyrus* Semper and *Trochodota* Ludwig are reviewed. *Scoliodotella* Oguro is a junior synonym of *Scoliorhapis* H. L. Clark. *Trochodota* Ludwig type species is fixed as *Holothuria (Fistularia) purpurea* Lesson. *Trochodota* Ludwig is a junior synonym of *Taeniogyrus* Semper. *Sigmodota* Studer type species is fixed as *Chiridota contorta* Ludwig, and *Sigmodota* Studer is raised out of synonymy with *Taeniogyrus* Semper. Species assigned to *Sigmodota* are *Chiridota contorta* Ludwig, *Taeniogyrus dubius* H. L. Clark (as *Sigmodota dubia*) and *Taeniogyrus magnibaculus* Massin and Hétérier (as *Sigmodota magnibacula*). Non-Antarctic new genus *Rowedota* gen. nov. is erected with type species *Taeniogyrus allani* Joshua, and other assigned species *Trochodota epiphylla* O’Loughlin, *Trochodota mira* Cherbonnier, *Trochodota shepherdii* Rowe and *Trochodota vivipara* Cherbonnier. *Trochodota* species not assigned to *Rowedota* gen. nov. and *Sigmodota* Studer are assigned to *Taeniogyrus* Semper. Other Antarctic apodid species discussed are *Myriotrochus antarcticus* Smirnov and Bardsley, *Myriotrochus hesperides* O’Loughlin and Marjón-Cabeza and *Taeniogyrus antarcticus* Heding. Non-Antarctic apodid species discussed are *Chiridota pisani* Ludwig, *Chiridota australiana* Stimpson and *Trochodota maculata* H. L. Clark. The spelling of the species name *Myriotrochus macquariensis* Belyaev and Mironov is corrected. A table with Antarctic Apodida species and their distributions is provided. A table with specimen and ossicle sizes for some *Taeniogyrinae* species is provided. A key to genera of *Taeniogyrinae* is provided. Species names are standardized to: *macquariensis; studeri; theeli.*