

Australian Aplacophoran Molluscs: I. Chaetodermomorpha from Bass Strait and the Continental Slope off South-eastern Australia

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ABSTRACT. Four new species of Chaetodermatidae (*Chaetoderma usitatum*, *Falcidens chistos*, *F. lipuros* and *F. macrafrondis*) and a new genus and species of Prochaetodermatidae (*Rhabdoderma australe*) are the first Chaetodermomorpha described from off Australia; all are from the shelf in Bass Strait or from the continental slope off southeastern Australia. Two species are numerous: *F. chistos* occurs at densities sometimes up to 180 m² from 22 to 120 m in 20 of the 23 shelf samples that contain Chaetodermomorpha, and the prochaetodermatid *R. australe* is common from deeper water, 1,120 to 2,510 m. Several additional species only recently received or with a single specimen are noted but not described; three belong to *Prochaetoderma*, *Limifossor*, or *Scutopus*, thereby extending the recorded ranges of these genera to the western Pacific. Of the 16 species of Chaetodermomorpha collected, four are shelf species occurring at depths of less than 200 m (*F. chistos*, *F. lipuros*, one Prochaetodermatidae, one undetermined), six are upper slope species extending to 1,000 m (three species of *Falcidens*, *Chaetoderma* sp., *Scutopus* sp., *Limifossor* sp.) and six extend below 1,000 m (*C. usitatum*, *F. macrafrondis*, *R. australe*, *Falcidens* sp., *Chaetoderma* sp., *Prochaetoderma* sp.). These depth distributions are similar to other Pacific Chaetodermomorpha genera except for *Chaetoderma*, a genus usually common on the shelf but missing from Bass Strait.

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Aplacophoran molluscs belonging to the footless, burrowing group comprising the subclass Chaetodermomorpha (= Caudofoveata) have not been reported before from off Australia. Five species in two families and three genera are described here from recent collections made on the slope off southeastern Australia and the shelf in Bass Strait.

Materials

A total of 231 specimens in 27 samples were examined: 23 samples were taken between 22 and 130 m in Bass Strait,

three samples from the continental slope off south-east Victoria between 1,120 and 2,510 m, and one sample from 1,200 m off Wollongong, New South Wales (Table 1). Twenty five of the Bass Strait stations are part of the Museum of Victoria Bass Strait Survey (RV *Hai-Kung*, FV *Sarda*, RV *Tangaroa*); one sample from the Bass Strait (Esso-Gipps Stn 20) and one sample from off Wollongong (FRV *Kapala*) comprise part of the collection of the Australian Museum (AMC149631 and AMC149638, respectively). In addition, 937 specimens from 17 stations taken by the Museum of Victoria between 363 and 1,850 m on the slope off Point Hicks (RV *Franklin*) have been