CANNIBALISM IN AN OPISTHOBRANCH MOLLUSC,
PLEUROBRANCHAEA BROCKII BERGH, 1897
FROM HONG KONG WATERS

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ABSTRACT

Pleurobranchaea brockii Bergh, 1897 is a large opisthobranch mollusc of the order Notaspidea. It occurs commonly in the subtidal of the South China Sea. It appears to be a voracious carnivore. Numerous specimens were collected in shrimp trawls from Hong Kong waters during the Fourth International Workshop on the Marine Flora and Fauna of Hong Kong and Southern China in April 1995. The gut contents of 32 specimens was analysed. Twelve specimens contained more or less dissolved remnants of conspecifics. A total of 18 specimens had remnants of opisthobranchs in the crop. In one specimen a “food chain” of 4 levels of opisthobranchs eating other opisthobranchs could be traced; a large P. brockii had eaten a smaller conspecific, which had eaten an aglajid (Philinopsis cf. cyanea (Martens, 1879)), which had several shells of Ringicula cf. doliaris Gould, 1860, in its gizzard. Other invertebrates eaten by P. brockii include cephalopods, bivalves, ophiuroids, and polychaetes. A few specimens also contained echinoid spines and spicules of gorgonians; these could have originated from the guts of other prey organisms. Eleven specimens had empty crops. Cannibalism has been recorded in other species of Pleurobranchaea.