

rectum. Respiration is effected in *Neomenia* by about thirty ciliated folds in the rectum, in *Chatoderma* the gills are paired, the anal opening lying between them. The few gills situated on each side of the anus in the Leptoidea is but a slight advance, and from this condition there is a complete series to the long row of closely-set gills of the most specialised Chitons, other details of structure tending to prove that the extent of the gill-row is one indication of specialisation. In *Cryptoplax* the gills extend to about one-third to one-half of the length of the foot, and thus constitute a distinct advance upon *Leptochiton*.

On the whole, then, it would appear that the genus *Cryptoplax* is a highly specialised branch of a low group of Chitons, but there are not yet sufficient data to indicate the exact relationship of the genus. The limited Australasian distribution of the genus, so far as that is of any value, supports this conclusion. Carpenter, Dall, and Rochebrune deny that any fossil representatives of the genus are known.