

Reassessment of the anthozoan order Ptychodactiaria.

CAPPOLA, V.A.* and D.G. FAUTIN. Univ. of Kansas, Lawrence.

The current classification scheme of cnidarian class Anthozoa recognizes Ptychodactiaria as an order equivalent to the Actiniaria and Scleractinia. We will assess whether Ptychodactiaria merits ordinal status. It contains three monospecific genera (*Dactylanthus*, *Preactis*, and *Ptychodactis*) in two families (Preactiidae and Ptychodactiidae). Order Ptychodactiaria was originally characterized by the lack of basilar muscles, the absence of ciliated tracts on the filaments, and the placement of the gonads in a layer on either side of the mesenterial mesoglea. It was redefined to accommodate the presence of basilar muscles and ciliated tracts in the genus *Preactis*. *Preactis* has characteristics that are intermediate between those of the other ptychodactiarans and the actiniarians. Except for the presence of basilar muscles and ciliated tracts, *Preactis* is more similar to *Dactylanthus* than either genus is to *Ptychodactis*. The condition of basilar muscles in all three species and the phylogenetic importance of this character will be reassessed to determine whether these three genera form a clade. This research was supported by NSF grant DEB95-21819(PEET) to D.G. Fautin.