

# Monogeneans of the freshwater siluriform fishes of Thailand

## ABSTRACT

Thailand has 98 species of freshwater Siluriformes. Eighty-three gill-monogenean species belonging to seven genera (*Bifurcohaptor*, *Bychowksyella*, *Cornudiscoides*, *Hamatopeduncularia*, *Mizelleus*, *Thaparocleidus* and *Quadriacanthus*) in two subfamilies (Ancylo-discoidinae and Ancyrocephalinae) in the family Ancyrocephalidae were described from 40 of the 44 freshwater siluriforms investigated. The observed diversity of siluriform monogeneans in Thailand is estimated to be only 33 % - 50 % of the expected diversity.

The majority of the monogeneans on Thai siluriforms are host-specific (76% of the monogeneans are restricted to one host species while 24 % are found on two or more host species). Co-existing species, congeners and non-congeners, are common and the number vary from one to eight: *Hemibagrus nemurus* has eight species belonging to three genera, *H. wyckoides* harbours seven species from two genera, while *Pangasius larnaudii* and *Pteropangasius pleurotaenia* have six species of *Thaparocleidus* each. Thailand is a transition zone harbouring genera from India and probably China.

Morphological analysis shows that co-existing species are morphologically diverse. These differences are probably evolutionary strategies to avoid interactions (competitions) and interspecies mating to preserve species integrity.

A hypothetical evolutionary pathway for monogeneans of the siluriforms suggests that the monogeneans of the ariids and the ancyrocephalin genera (*Bychowksyella*, *Mizelleus* and *Quadriacanthus*) are morphologically similar to the ancient form while the ancylo-discoidins are comparatively more advance. The above concur to some extent with hosts interrelationships.