

Gut histology of Malaysian river catfish, *Mystus nemurus* (C&V) larvae.

ABSTRACT

For the successful weaning of *M. nemurus* larvae, the development of gut histology was observed. The eggs hatched two days after fertilization (2 daf) and most of the larvae hatched within 2-4 daf. The commencement of external feeding start on the 4 days post-hatch (dph). Fish larvae are characterized by digestive system and diets that differ from adults. Larvae undergo a pattern of trophic ontogeny, changing with increasing size, and these changes result in differences in digestive requirements. The histological development of the gut of *M. nemurus* larvae were investigated from hatching until 21dph using a compound microscopy. During the yolk sac period, the gut is a simple, straight, undifferentiated tube throughout its length. By 4-5 dph the gut differentiated to the oesophagus, stomach, and intestine. At first feeding, the larval gut is functional, but is structurally and functionally less complex than that of adults. By the 13 dph the larvae attained four tissue layers arrangement.

Keyword: Gut histology; Larvae; Malaysian river catfish; *Mystus nemurus*.