**Observation on the embryonic development of Sultan fish, Leptobarbus hoevenii**


## ABSTRACT

Sultan fish, Leptobarbus hoevenii, is a popular freshwater fish species that is important to the aquaculture industry in some Southeast Asian countries, including Malaysia and Thailand. This study examined the embryonic development of L. hoevenii in order to fill in the biological knowledge gap and to provide a baseline information to fish farmers for the operations of mass seed production. The fertilized egg of L. hoevenii was obtained through natural spawning with the aid of hormones injection. Egg specimens were sampled randomly for the embryonic development examination. At a water temperature of about 28˚C, the egg fertilization ratio was 85.4%. The egg developed through the cleavage period, morula and gastrula stages, the segmentation periods, and the complete embryo formed at 18 hrs 11 minutes after fertilization (AF); some newly hatched were already seen at this stage. The egg hatching event completed at 22 hrs and 44 minutes AF, and the egg hatching ratio was 87%. Evaluation of the impacts of the water parameters (including temperature), ambient (e.g. water flow and lighting) and broodstock conditions (e.g. age and nutritional status) on the embryonic development duration in L. hoevenii is recommended for future studies.