

**A study on the number and pattern of growth rings obtained in the otolith
and vertebrae of kissing gouramy captured in the
Koto Panjang dam, Riau**

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Abstract

Growth rings present in the otolith is commonly used to understand the age and life history of fish. Growth rings itself, however, are also formed in the massive structure such as vertebrae. As there is no information on the use of the vertebrae growth rings for studying the age and life history of fish, a study aims to understand the relationship between number and pattern of growth rings in the otolith and vertebrae of *Helostoma temmincki* is conducted. Forty five fishes were sampled in the Koto Panjang Dam. Their otolith and 2nd and 3rd vertebrae were removed and then shaved in the Terpadu laboratory, Fishery and marine Science Faculty, Riau University Pekanbaru. Number and form/ pattern of growth rings were then counted and determined.

Results shown that the number of rings in the otolith and vertebrae is similar, ranges from 2 – 7. The form of the rings, however, is different. Ring in the otolith is relatively thin, while rings in the vertebrae is relatively dark and thick. The growth ring in the vertebrae may be used as a tool to predict the growth pattern of fish.

Key words: otolith, fish vertebrae, growth ring, *Helostoma temincki*