

**Indeks Gonadosomatis dan Struktur Histologis Gonad Ikan Glodok
(*Periophthalmus gracilis* Eggert, 1935) di Sungai Bogowonto, Kulon Progo,
Daerah Istimewa Yogyakarta**

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INTISARI

Penelitian tentang indeks gonad dan struktur histologis gonad ikan glodok (*Periophthalmus gracilis* Eggert, 1935) telah dilakukan. Ikan glodok adalah salah satu ikan yang menghadapi tantangan dalam lingkungannya sehingga perlu adanya strategi reproduksi. Penelitian ini bertujuan untuk mengetahui strategi reproduksi dilihat dari indeks gonadosomatik pada ikan glodok jantan dan betina serta untuk mengetahui struktur histologis kedua gonad. Penelitian ini diharapkan dapat menjadi sumber acuan untuk penelitian selanjutnya atau untuk usaha konservasi ikan glodok. Ikan yang disampel dibedah lalu ditimbang berat tubuh dan gonadnya untuk mendapatkan indeks gonadosomatiknya (IGS). Setelah itu gonad difiksasi dan dibuat sediaan histologisnya dengan metode parafin, tebal irisan 6 μm , dan diwarnai dengan pewarna HE. Analisis dilakukan secara kuantitatif dan kualitatif. Analisis kuantitatif digunakan dalam analisis nilai IGS ikan jantan dan betina. Analisis secara kualitatif terdiri atas analisis deskriptif dan komparatif yang meliputi pengamatan struktur histologis gonad ikan jantan dan betina. Hasil dari penelitian ini menunjukkan perbedaan IGS ikan jantan dan betina yang disebabkan oleh perbedaan komposisi gonad. Perbedaan komposisi gonad diperjelas dengan hasil pengamatan struktur histologis gonad. Gonad betina tersusun atas oosit yang mengalami perkembangan dalam berbagai fase. Oosit yang berkembang mengalami penambahan berat akibat akumulasi *yolk* sehingga meningkatkan diameter oosit dan nilai IGS. Sedangkan gonad jantan tersusun atas sel-sel spermatogenik yang juga mengalami perkembangan, akan tetapi perkembangan tersebut tidak banyak berpengaruh pada berat gonad.

Kata kunci: Indeks gonadosomatik, Struktur histologis, gonad, *Periophthalmus gracilis*.

**Gonadosomatic Indices and Histological Structure of Gonads of Mudskippers
(*Periophthalmus gracilis* Eggert, 1935) in Bogowonto River, Kulon Progo,
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ABSTRACT

Research on the gonad index and histological structure of gonads of mudskippers (*Periophthalmus gracilis* Eggert, 1935) had been performed. Mudskippers are a group of fishes that face challenges in the environment so that they need a reproductive strategy. This study aimed to determine the reproductive strategy by looking at gonadosomatic indices seen in male and female mudskippers as well as to determine the histological structure of the gonads. This study was expected to be a source of reference for further research or for mudskipper conservation. The fishes were sampled, dissected and the gonads were weighed to get the Gonadosomatic Indices (GSI). After the gonads were fixed, the histological preparations were made with paraffin method, with 6 µm thick slices, and stained with HE dye. Analyses were performed quantitatively and qualitatively. Quantitative analysis was used in the analysis of the value of GSI of male and female fish. Qualitative analysis consisted of descriptive and comparative analysis which includes the observation of histological structure of male and female fish gonads. The results shown the differences of GSI of male and female fish are caused by differences in the composition of the gonads. Differences in the composition of the gonads clarified with observations of gonad histological structure. The female gonads composed of oocytes that had been developed in various phases. Growing oocytes experiencing weight gain due to accumulation of yolk and thus increasing the diameter of the oocyte and the value of GSI. While the male gonads composed of spermatogenic cells are also experiencing growth, but these developments did not have much effect on the weight of the gonads.

Keywords: Gonadosomatic indices, Histological structure, gonad, *Periophthalmus gracilis*.