ABSTRAK

Akbar Fadhlurrahman Sufi, NIM 4203220040 (2025). Mikrostruktur *Otolith* dan Determinasi Umur Ikan Senangin *(Eleutheroma tetradactylum).*

Penelitian ini bertujuan untuk mengetahui rata-rata panjang, berat, umur, serta ukuran *otolith* ikan senangin *(Eleutheronema tetradactylum)*, serta menganalisis hubungan antara panjang dan berat ikan terhadap pola pertumbuhannya. Penelitian dilakukan melalui pengambilan sampel ikan senangin di lokasi penelitian, kemudian dilakukan pengukuran morfometrik, pembacaan jari-jari sirip dorsal pertama untuk penentuan umur, serta pengukuran panjang dan lebar *otolith* menggunakan mikroskop digital. Hasil penelitian menunjukkan bahwa rata-rata panjang ikan senangin yang diamati adalah 24,9 cm, dengan panjang minimum 21,8 cm dan maksimum 32,4 cm. Rata-rata berat ikan adalah 247,86 g, dengan berat terendah 155,10 g dan tertinggi 510,28 g. Berdasarkan hasil pembacaan jari-jari sirip dorsal pertama, sebagian besar ikan yang diamati berumur lebih dari 1 tahun namun kurang dari 2 tahun, sedangkan sebagian kecil berumur kurang dari 1 tahun. Hal ini menunjukkan bahwa populasi ikan senangin yang tertangkap didominasi oleh kelompok umur muda hingga awal dewasa. Panjang *otolith* ikan senangin relatif seragam dengan nilai rata-rata 2756 µm, sedangkan lebar *otolith* bervariasi antara 1612–2097 µm. Hubungan antara panjang dan berat ikan senangin mengikuti persamaan $W = 67{,}73 \times L^{3{,}0048}$ dengan nilai koefisien determinasi (R^2) sebesar 1,00. Nilai b yang mendekati 3 menunjukkan bahwa ikan senangin memiliki pola pertumbuhan isometrik, yaitu pertambahan panjang dan berat berlangsung secara proporsional.

Kata kunci: Ikan senangin, morfometrik, *otolith*, pertumbuhan isometrik

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ABSTRACT

Akbar Fadhlurrahman Sufi, NIM 4203220040 (2025). Microstructure of *Otolith* and Age Determination of Fourfinger Threadfin *(Eleutheronema tetradactylum*).

This study aims to determine the average length, weight, age, and *otolith* size of the fourfinger threadfin (Eleutheronema tetradactylum), as well as to analyze the relationship between fish length and weight to identify its growth pattern. Samples of fourfinger threadfin were collected from the study site, followed by morphometric measurements, first dorsal fin ray readings for age determination, and measurements of *otolith* length and width using a digital microscope. The results showed that the average length of the observed fish was 24.9 cm, ranging from 21.8 cm to 32.4 cm. The average weight was 247.86 g, with the lowest weight of 155.10 g and the highest of 510.28 g. Based on the reading of the first dorsal fin rays, most of the observed fish were over 1 year old but less than 2 years, while a smaller portion were under 1 year old. This indicates that the captured population of fourfinger threadfin is dominated by young to early adult age groups. The *otolith* length was relatively uniform with an average of 2756 µm, while the *otolith* width varied between 1612–2097 µm. The relationship between fish length and weight followed the equation $W = 67.73 \times L^{3.0048}$ with a coefficient of determination (R^2) of 1.00. The value of b close to 3 indicates that the fourfinger threadfin exhibits an isometric growth pattern, meaning that increases in length and weight occur proportionally.

Keywords: Fourfinger threadfin, morphometric, *otolith*, isometric growth

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