INTISARI

HUBUNGAN MORFOMETRIK OTOLITH DENGAN PANJANG DAN BERAT PADA IKAN LAYANG BIRU (*Decapterus macarellus* Cuvier, 1833) YANG DIDARATKAN DI PELABUHAN PERIKANAN PANTAI SADENG KABUPATEN GUNUNGKIDUL

Ikan layang biru atau *Mackerel scad* merupakan salah satu komoditas utama yang didaratkan di Pelabuhan Perikanan Pantai Sadeng, Gunungkidul, Yogyakarta. Pengelolaan populasi ikan layang biru sangat penting dilakukan agar pemanfaatannya dapat berkelanjutan. Penelitian ini bertujuan untuk menyajikan bentuk otolith, mengkaji perbedaan otolith berdasarkan letak dan jenis kelaminnya, mengkaji hubungan morfometrik otolith dengan panjang dan berat ikan layang biru. Sampel ikan diambil pada bulan November dan Desember 2024 sebanyak 250 ekor, terdiri dari 151 ekor jantan dan 99 ekor betina. Metode penelitian yang digunakan dalam studi ini berupa pengamatan. Setiap sampel ikan diukur panjang dan beratnya, ditetapkan jenis kelaminnya, dan diambil otolithnya dengan metode *up through the gill*. Sampel otolith yang didapatkan sebanyak 215 pasang, terdiri dari 129 pasang otolith jantan dan 86 pasang otolith betina. Morfometrik otolith diukur dan dianalisis mengggunakan 6 indikator indeks bentuk, yakni R_O, F_F, R_t, C, A_R, dan E. Hasil penelitian diperoleh otolith ikan layang biru berbentuk cenderung oval memanjang dan memiliki permukaan yang tidak teratur. Hasil analisis uji *t-test* menunjukkan tidak ada perbedaan signifikan antara otolith kanan dan kiri, namun terdapat perbedaan signifikan antara otolith jantan dan betina. Hasil analisis menggunakan persamaan regresi linier diperoleh hubungan morfometrik otolith dengan panjang dan berat ikan layang biru berbentuk linier positif dengan nilai determinasi hubungan tertinggi antara berat otolith dengan panjang dan berat ikan.

Kata kunci : indeks bentuk, *Mackerel scad*, pengukuran, signifikan, simetris.

ABSTRACT

MORPHOMETRIC RELATIONSHIP OF OTOLITH WITH LENGTH AND WEIGHT OF MACKEREL SCAD (*Decapterus macarellus* Cuvier, 1833) LANDED AT SADENG COASTAL FISHING PORT GUNUNGKIDUL REGENCY

The *Mackerel scad* (*Decapterus macarellus*) is one of the primary commodities landed at the Sadeng Coastal Fishing Port, Gunungkidul, Yogyakarta. Management of the *Mackerel scad* population is crucial to sustain its utilization. This study aims to present the shape of the otolith, examine the differences in otoliths based on their location and gender, and examine the relationship between otolith morphometrics and the length and weight of the *Mackerel scad*. Fish samples were taken in November and December 2024, as many as 250 fish, consisting of 151 males and 99 females. The research method used in this study is observation. Each fish sample was measured for length and weight, its sex was determined, and its otolith was taken using the up-through gill method. The otolith samples obtained 215 pairs, comprising 129 pairs of male otoliths and 86 pairs of female otoliths. Otolith morphometrics were measured and analyzed using 6 shape index indicators: RO, FF, Rt, C, AR, and E. The study results showed that the scad's otolith tends to be oval and has an irregular surface. The results of the t-test analysis revealed no significant difference between the right and left otoliths, but there was a considerable difference between the male and female otoliths. The analysis results using the linear regression equation obtained a positive linear relationship between the morphometric relationship of the otolith and the length and weight of the scad with the highest determination value of the relationship between the weight of the otolith and the length and weight of the fish.

Keywords: *Mackerel scad*, measurement, shape index, significant, symmetrical.