

INTISARI

HUBUNGAN MORFOMETRIK OTOLITH DENGAN PANJANG DAN BERAT IKAN KURISI (*Nemipterus peronii Valenciennes, 1830*) YANG DIDARATKAN DI PELABUHAN PERIKANAN NUSANTARA TEGALSARI KOTA TEGAL

Ikan kurisi (*Nemipterus peronii*) merupakan ikan hasil tangkapan yang didaratkan di Pelabuhan Perikanan Nusantara Tegalsari Kota Tegal. Ikan kurisi ditangkap menggunakan alat tangkap jaring tarik berkantong. Tujuan penelitian ini untuk mengetahui bentuk otolith, morfometrik otolith, dan hubungan morfometrik otolith dengan panjang dan berat ikan. Sampel ikan kurisi diambil pada bulan November 2025. Jumlah sampel ikan kurisi yang digunakan sebanyak 220 ekor dan yang berhasil diambil otolith sebanyak 208 ekor. Sampel tersebut terdiri dari 153 ekor ikan jantan dan 55 ekor ikan betina. Setiap sampel ikan diukur panjang dan berat serta dilakukan pengamatan gonad untuk menentukan jenis kelamin. Otolith diambil dengan metode *up through the gill*. Pengukuran morfometrik otolith dilakukan menggunakan perangkat lunak ImageJ meliputi pengukuran panjang (O_L), lebar (O_W), keliling (O_P), luas (O_A), dan berat (O_M). Indeks bentuk otolith dihitung berdasarkan enam deskriptor seperti *form factor* (F_F), *roundness* (R_O), *circularity* (C), *rectangularity* (R_t), *ellipticity* (E), dan *aspect ratio* (A_R). Hasil penelitian menunjukkan bahwa otolith ikan kurisi memiliki bentuk memanjang dan cenderung oval serta permukaan yang tidak teratur. Otolith kiri dan kanan serta jantan dan betina di analisis dengan uji t. Hasil penelitian ini menunjukkan bahwa otolith kiri dan kanan serta otolith jantan dan betina sama atau tidak berbeda nyata. Hubungan morfometrik otolith dengan panjang dan berat ikan di analisis dengan regresi linear dengan persamaan $y=a+bx$. Hasil dari penelitian menunjukkan hubungan linear positif. Keliling otolith (O_P) memiliki hubungan terkuat dengan panjang dan berat ikan dengan nilai R^2 sebesar 79,9% dan 73,7%.

Kata kunci: *Nemipterus peronii*, morfometrik, demersal, otolith, indeks bentuk

Abstract

MORPHOMETRICS RELATIONSHIP OF OTOLITHS WITH LENGTH AND WEIGHT NOTCHEDFIN THREADFIN BREAM (*NEMIPTERUS PERONII*, VALENCIENNES 1830) LANDED AT TEGALSARI NUSANTARA FISHING PORT TEGAL CITY

Notchedfin threadfin bream (*Nemipterus peronii*) is a fish catch that is landed at Tegalsari Nusantara Fishing Port, Tegal City. Kurisi fish are caught using bagged drag net fishing gear. The purpose of this study was to determine the shape of otoliths, otolith morphometrics, and the relationship of otolith morphometrics with fish length and weight. Notchedfin threadfin bream samples were taken in November 2025. The number of notchedfin threadfin bream samples used was 220 fish and 208 otoliths were successfully taken. The sample consisted of 153 male fish and 55 female fish. Each fish sample was measured for length and weight and gonads were observed to determine sex. Otoliths were taken using the up trough the gill method. Otolith morphometric measurements were carried out using Image J software including measurements of length (O_L), width (O_W), circumference (O_P), area (O_A), and weight (O_M). Otolith shape index was calculated based on six descriptors such as *form factor* (F_F), *roundness* (R_O), *circularity* (C), *rectangularity* (R_t), *ellipticity* (E), and *aspect ratio* (A_R). The results showed that notchedfin threadfin bream otoliths have an elongated shape and tend to be oval and irregular surfaces. The left and right otoliths as well as males and females were analyzed by t test. The results of this study indicate that the left and right otoliths as well as male and female otoliths are the same or not significantly different. The morphometric relationship of otoliths with length and weight of fish was analyzed by linear regression with the equation $y = a + bx$. The results of the study showed a positive linear relationship. Otolith circumference (O_P) had the strongest relationship with fish length and weight with R^2 values of 79,9% and 73,7%.

Keywords: *Nemipterus peronii*, morphometrics, demersal, otolith, shape index