

Intisari

Parameter Populasi Ikan Layang Biru (*Decapterus macarellus*, Cuvier 1833) di Perairan Selatan Daerah Istimewa Yogyakarta

Penelitian ini bertujuan untuk menentukan parameter populasi ikan layang biru (*Decapterus macarellus*, Cuvier 1833) di perairan selatan Daerah Istimewa Yogyakarta. Sampel ikan sebanyak 800 ekor diambil dari hasil tangkapan nelayan, dilakukan dua kali setiap bulan selama 6 bulan, mulai dari September 2024 hingga Februari 2025. Setiap sampel ikan yang diperoleh diukur panjang total dan beratnya. Hasil pengukuran panjang dan berat selanjutnya digunakan untuk menentukan hubungan panjang-berat, faktor kondisi, parameter pertumbuhan, mortalitas, laju eksploitasi, dan rekrutmen. Perhitungan faktor kondisi dan parameter populasi dilakukan dengan menggunakan *software* Microsoft Excel dan FiSAT II. Hasil penelitian menunjukkan bahwa pola pertumbuhan ikan layang biru di perairan selatan Daerah Istimewa Yogyakarta bersifat alometrik negatif dengan nilai b sebesar 2,7409, sedangkan nilai rerata faktor kondisi bulanan berkisar 0,95-1,12. Panjang maksimal ikan layang biru (L_{∞}) adalah sebesar 54,25 cm, nilai K sebesar 0,43/tahun, dan nilai t_0 sebesar -0,32. Mortalitas total sebesar 4,2/tahun yang terdiri mortalitas alami sebesar 0,89/tahun dan mortalitas akibat penangkapan sebesar 3,31/tahun. Ikan layang biru di perairan selatan Daerah Istimewa Yogyakarta berada dalam kondisi *over-exploited* dengan laju eksploitasi sebesar 0,79/tahun. Puncak rekrutmen pada ikan layang biru diperkirakan terjadi pada bulan Agustus.

Kata kunci: dinamika populasi, eksploitasi, ikan layang biru, mortalitas, pertumbuhan

Abstract

Population Parameters of Blue Mackerel Scad (*Decapterus macarellus*, Cuvier 1833) at Southern Coast of Special Region of Yogyakarta

This study aims to determine the population parameters of blue scad (*Decapterus macarellus* Cuvier 1833) in the southern waters of the Special Region of Yogyakarta. In total, 800 fish samples were taken from fishermen's catches, carried out twice a month for 6 months, starting from September 2024 to February 2025. Each fish sample obtained was measured for total length and weight. The length and weight measurements were then used to determine the length-weight relationship, condition factors, growth parameters, mortality, exploitation rate, and recruitment. Calculation of condition factors and population parameters were carried out using Microsoft Excel and FiSAT II software. The results indicated that the growth pattern of blue scad in the southern waters of the Special Region of Yogyakarta was negative allometric with the b value of 2.7409, while the average monthly condition factor value ranged from 0.95 to 1.12. The maximum length of blue scad (L_{∞}) was 54.25 cm, the K value was 0.43/year, and the t_0 value was -0.32. Total mortality was 4.2/year, consisting of 0.89/year natural mortality and 3.31/year mortality due to fishing. Blue scad in the southern waters of the Special Region of Yogyakarta are categorized as being in an over-exploited condition with an exploitation rate of 0.79/year. The peak recruitment of blue scad is estimated to occur in August.

Keywords: blue mackerel scad, exploitation, growth, mortality, population dynamics