

Intisari

Karakter Morfometrik, Meristik, dan Identifikasi Molekuler Makarel (*Scomber* sp.) di Perairan Pantai Kabupaten Bantul

Identifikasi jenis ikan secara akurat penting dilakukan karena berpengaruh terhadap kegiatan pengelolaan sumberdaya perikanan. Penelitian ini bertujuan untuk menentukan dan mengidentifikasi jenis makarel di perairan Pantai Kabupaten Bantul secara morfologi dan molekuler. Pengambilan sampel ikan dilakukan di Pantai Depok pada bulan September hingga Desember 2023 sebanyak 222 ekor makarel. Identifikasi morfologi dilakukan dengan pengamatan karakteristik ikan, pengukuran 13 karakter *truss morphometric*, dan 7 karakter meristik. Analisis karakter morfometrik dilakukan dengan *Principal Component Analysis* (PCA) dan analisis karakter meristik dilakukan dengan cara membandingkan hasil perhitungan dengan pustaka. Identifikasi makarel secara molekuler menggunakan metode DNA *barcoding* dengan sampel sebanyak 6 ekor. Identifikasi secara morfologi menunjukkan bahwa jenis makarel di perairan Pantai Kabupaten Bantul adalah *Scomber australasicus*. Hasil PCA dari 13 karakter *truss morphometric* menunjukkan bahwa karakter yang berpengaruh terhadap keragaman *S. australasicus* yaitu jarak antara bagian depan sirip punggung kedua dengan bagian depan sirip ventral, jarak antara bagian belakang anal *finlets* dengan bagian depan sirip anal, jarak antara bagian depan sirip punggung kedua dengan bagian belakang dorsal *finlets*, dan jarak antara ujung moncong bawah dengan bagian depan sirip punggung pertama. Karakter meristik makarel di perairan Pantai Kabupaten Bantul memiliki rumus sirip D1.X-XI; D2.I.11; P.20-21; A.I.10-12; DF.5; dan AF.5. Hasil identifikasi molekuler menunjukkan bahwa jenis makarel di perairan Pantai Kabupaten Bantul terbukti sebagai *S. australasicus*.

Kata kunci: DNA *barcoding*, identifikasi, morfologi, *S. australasicus*, *truss morphometric*

Abstract

Morphometric, Meristic Characters, and Molecular Identification of Mackerel (*Scomber* sp.) in the Coastal Waters of Bantul Regency

Accurate identification of fish species is important because it affects fisheries resource management activities. This study aims to determine and identify of mackerel species in coastal waters of Bantul Regency morphologically and molecularly. Fish sampling was conducted at Depok Coasts from September to December 2023 totaling 222 mackerel fish. Morphological identification was carried out by observing fish characteristics, measuring 13 morphometric truss characters, and 7 meristic characters. Morphometric character analysis was carried out with Principal Component Analysis (PCA) and meristic character analysis was carried out by comparing the results to the previous study. Molecular identification of mackerel using DNA barcoding method with a sample of 6 fish. Morphological identification shows that the type of mackerel in the coastal waters of Bantul Regency is *Scomber australasicus*. PCA results from 13 morphometric truss characters showed that the characters that influenced the diversity of *S. australasicus* were the distance between the insertions of the pelvic and the second dorsal fins, distance between the insertions of anal fin and the fifth inferior finlet, distance between the insertions of the second dorsal fin and the fifth superior finlet, and distance between the tip of mandible and the insertion of the first dorsal fin. The meristic characters of mackerel in the coastal waters of Bantul Regency have fin formulas D1.X-XI; D2.I.11; P.20-21; A.I.10-12; DF.5; and AF.5. The results of molecular identification showed that mackerel in the coastal waters of Bantul Regency were proven to be *S. australasicus*.

Key words: DNA barcoding, identification, morphology, *S. australasicus*, truss morphometrics