

ABSTRAK

Informasi tentang bio-ekologi Elasmobranchii di perairan Rote, selatan Laut Sawu, masih terbatas meskipun aktivitas penangkapan Elasmobranchii tinggi. Penelitian ini bertujuan mempelajari distribusi dan struktur komunitas Elasmobranchii di Rote Barat menggunakan metode non-destruktif Baited Remote Underwater Video (BRUV). Sebanyak 142 BRUV (2019) dan 117 BRUV (2023) diluncurkan di sembilan situs. MaxN digunakan untuk mengukur kelimpahan relatif dan keanekaragaman (hill diversity), sementara komposisi trofik dianalisis menggunakan Uji Chi-Kuadrat. Visualisasi distribusi spasial dilakukan dengan software ArcGis. Hasil penelitian mencatat 24 spesies Elasmobranchii, dengan 56% kemunculan menunjukkan ketertarikan terhadap BRUV 2023. Kelimpahan relatif Selachii (0.512) jauh lebih tinggi dibandingkan Batoidea (0.147) pada 2023. Keanekaragaman Elasmobranchii lebih tinggi pada survei 2023 ($r=12.79$), dengan Do'o sebagai situs paling beragam ($r=6.72$ (2019); $r=8.80$ (2023)). Analisis menunjukkan perbedaan signifikan pada komposisi trofik antar situs ($p\text{-value} < 0.05$). Elasmobranchii di perairan Rote berasosiasi dengan habitat pebble/gravel, memiliki keanekaragaman yang sangat tinggi ($r=11.70$). Situs Do'o menjadi pusat sebaran Batoidea. Meskipun tidak ada perubahan signifikan dalam kelimpahan antara survei, Rote Barat sebagai MPA telah melindungi spesies ETP (*Endangered, Threatened, and Protected*) yang terdistribusi di wilayah NTZ. Peningkatan perlindungan dan manajemen perikanan diperlukan untuk memperkuat kontribusi MPA Rote terhadap konservasi Elasmobranchii.

Kata Kunci: BRUV; distribusi; Elasmobranchii; Perairan Rote Barat; struktur komunitas.

ABSTRACT

Information on the bio-ecology of Elasmobranchii in Rote waters, south of the Sawu Sea, remains limited despite high Elasmobranchii fishing activity in the region. This study aims to understand the distribution and community structure of Elasmobranchii in Western Rote using Baited Remote Underwater Video (BRUV), a non-destructive and non-invasive method. A total of 142 BRUVs (2019) and 117 BRUVs (2023) were deployed across nine sites. MaxN was used to assess relative abundance and diversity (hill diversity). Trophic composition among study sites was analyzed using the Chi-squared goodness of fit test, and spatial distribution was visualized with ArcGis. The study recorded 24 Elasmobranchii species, with 56% of occurrences showing attraction to BRUVs in 2023. Selachii showed a much higher relative abundance (0.512) than Batoidea (0.147) in 2023. Elasmobranchii diversity was also higher in 2023 ($r=12.79$), with Do'o as the most diverse site ($r=6.72$ (2019); $r=8.80$ (2023)). Analyses revealed significant differences in trophic composition among sites (p -value < 0.05). Elasmobranchii in Rote waters are closely associated with pebble/gravel habitats, showing the highest diversity compared to other habitats ($r=11.70$). Do'o emerged as the primary distribution site for Batoidea. Although abundance did not change significantly between the two surveys, West Rote as an MPA has protected various ETP (Endangered, Threatened, and Protected) species, particularly in the NTZ area. Enhanced protection efforts and fisheries management are needed to strengthen the Rote MPA's contribution to Elasmobranchii conservation.

Keywords: BRUV; community structure; distribution; Elasmobranchii; Western Rote.