

RINGKASAN

FITRIA GUSRIANTI. Struktur Komunitas Gastropoda di Zona Intertidal Desa Pangke Kabupaten Karimun Provinsi Kepulauan Riau. Dibimbing oleh FALMI YANDRI DAN CHANDRA JOEI KOENAWAN.

Desa Pangke adalah salah satu desa yang termasuk di Kecamatan Meral Barat, Kabupaten Karimun Provinsi Kepulauan Riau, yang memiliki pantai-pantai indah seperti pantai pelawan dan pantai indah. tidak hanya di jadikan sebagai tempat wisata pantai tersebut juga di jadikan sebagai tempat mata pencaharian masyarakat sekitar, Pemanfaatan kawasan pesisir untuk kebutuhan hidup berdampak pada lingkungan dan keberadaan *Gastropoda*. Penelitian ini bertujuan untuk mengkaji jenis-jenis, kepadatan, indeks biologi *Gastropoda* (indeks keanekaragaman (H), indeks keseragaman (E), dan indeks dominansi (D)), serta hubungan kualitas lingkungan perairan terhadap faktor pembatas perkembangan *Gastropoda* Desa Pangke. Penelitian dilakukan pada september 2024 menggunakan metode *Line Transek Quadrant* di tiga stasiun penelitian yang di tentukan secara *purposive sampling*. Berdasarkan hasil penelitian menunjukkan bahwa parameter perairan masih sesuai standar baku mutu air laut untuk biota sesuai dengan PP RI No. 22 Tahun 2021, yang mana mampu mendukung keberlangsungan hidup *Gastropoda*. perbedaan parameter paling signifikan ditunjukkan oleh stasiun II karna merupakan wilayah Reklamasi dengan jenis sedimen pasir. Dan di temukan sebanyak 14 jenis *Gastropoda*. *Cerithidea Cingulata* merupakan salah satu individu yang paling banyak di temui di ketiga stasiun. Indeks keanekaragaman berada dalam kategori tinggi, keseragaman kategori sedang, dan dominansi menunjukkan adanya spesies yang mendominasi pada stasiun II. Kepadatan tertinggi terdapat di stasiun II (3,2 ind/m²) dengan jenis sedimen pasir dan terendah di stasiun I (1,61 ind/m²). Analisis PCA (*principal component analysis*) mengungkap bahwa oksigen terlarut (DO), kecerahan, sedimen kerikil, dan lumpur sangat mempengaruhi kepadatan *Gastropoda* di perairan Desa Pangke. Sedangkan kedalaman dan kekeruhan memiliki peran negatif terhadap keberadaan kepadatan *Gastropoda* di wilayah perairan Desa Pangke.

Kata kunci: Hubungan, Gastropoda, Kepadatan, Kualitas Perairan, Desa Pangke

SUMMARY

FITRIA GUSRIANTI. Gastropod Community Structure in the Intertidal Zone of Pangke Village, Karimun Regency, Riau Islands Province. Supervised by FALMI YANDRI AND CHANDRA JOEI KOENAWAN.

Pangke Village is one of the villages included in Meral Barat District, Karimun Regency, Riau Islands Province, which has beautiful beaches such as Pelawan Beach and Indah Beach. Not only used as a tourist spot, the beach is also used as a place of livelihood for the surrounding community. Utilization of coastal areas for living needs has an impact on the environment and the existence of gastropods. This study aims to examine the types, densities, biological indices of gastropods (diversity index (H), uniformity index (E), and dominance index (D)), as well as the relationship between the quality of the aquatic environment and the limiting factors for the development of gastropods in Pangke Village. The study was conducted in September 2024 using the *Line Transect Quadrant* method at three research stations determined by *purposive sampling*. Based on the results of the study, it shows that the water parameters are still in accordance with the standard seawater quality standards for biota in accordance with PP RI No. 22 of 2021, which is able to support the survival of gastropods. The most significant parameter difference is shown by station II because it is a Reclamation area with sediment types ranging from sand to muddy sand. And found as many as 14 types of gastropods. *Cerithidea Cingulata* is one of the most common individuals found in the three stations. The diversity index is in the high category, the uniformity is in the medium category, and dominance indicates the presence of dominant species at station II. The highest density is at station II (3.2 ind/m²) with sand sediment type and the lowest at station I (1,61 ind/m²). PCA (principal component analysis) analysis revealed that dissolved oxygen (DO), brightness, gravel sediment, and mud greatly affect the density of gastropods in the waters of Pangke Village. While depth and turbidity have a negative role on the presence of gastropod density in the waters of Pangke Village.

Keywords: Relationship, Gastropods, Density, Water Quality, Pangke Village