

RINGKASAN

WITDYA AYU RAMADHANI. Perbandingan Komunitas Gastropoda Epifauna di Ekosistem Mangrove Pada Fase Bulan Purnama dan Perbani di Perairan Sei Enam, Kabupaten Bintan. Dibimbing oleh ARIEF PRATOMO dan RIKA ANGGRAINI

Ekosistem mangrove merupakan vegetasi pantai tropis yang dapat tumbuh di daerah pasang surut air laut. Ekosistem ini berperan penting dalam menyediakan habitat bagi berbagai fauna, termasuk Gastropoda, yang dapat dijadikan bioindikator kesehatan lingkungan. Penelitian ini bertujuan untuk mengidentifikasi jenis komunitas Gastropoda dan mendeskripsikan perbedaan kepadatan komunitas tersebut berdasarkan fase bulan purnama dan perbani di ekosistem mangrove Sei Enam, Kabupaten Bintan. Penelitian dilaksanakan pada bulan Februari 2025 di Kecamatan Bintan Timur, dengan dua stasiun pengamatan. Alat dan bahan yang digunakan meliputi GPS, roll meter, transek, sediment core, dan alat pengukur kualitas air seperti *thermometer*, *multitester*, dan *handrefractometer*. Prosedur penelitian meliputi pengambilan sampel Gastropoda pada saat air surut, di mana sampel diambil dari plot berukuran 1 x 1 m yang menempel pada akar, batang, dan daun mangrove. Dua stasiun penelitian dianggap mewakili kondisi makrozoobentos di mangrove Sei Enam. Stasiun 1 terletak di daerah hulu, dan Stasiun 2 terletak di kawasan mulut muara dengan vegetasi mangrove di dekat dermaga kapal nelayan. Data Gastropoda pada ekosistem mangrove dilakukan 4 kali, yaitu: bulan purnama dan perbani 1, serta bulan purnama dan perbani 2. Analisis data dilakukan dengan menghitung kepadatan, keanekaragaman, keseragaman, dan dominansi menggunakan rumus yang sesuai. Kepadatan komunitas Gastropoda juga menunjukkan perbedaan yang Berdasarkan hasil penelitian yang dilakukan di Perairan Sei Enam ditemukan 11 jenis Gastropoda yaitu *Casidula aurisferis*, *Ellobium aurisjudae*, *Ceritidae quoyi*, *Telescopium*, *Terebralia sulcata*, *Chicoreus capicunus*, *Indothais gradata*, *Strombus canarium*, *Nerita antiquata*, *Volegalea cochidium*. Terdapat perbedaan dalam komposisi jenis komunitas Gastropoda antara fase bulan purnama dan perbani. Pada fase bulan purnama, ditemukan 10 spesies Gastropoda, sedangkan pada fase perbani hanya 9 spesies. Spesies yang paling dominan pada fase bulan purnama adalah *Ceritidae quoyi*, sedangkan pada fase perbani, spesies dominan adalah *Nerita antiquata*. Hal ini menunjukkan bahwa fase bulan mempengaruhi keberadaan dan distribusi spesies Gastropoda di ekosistem mangrove.

Kata kunci: Gastropoda, Mangrove, Perbani, Purnama, Sei Enam

SUMMARY

WITDYA AYU RAMADHANI. Comparison of Epifauna Gastropod Communities in Mangrove Ecosystems During Full Moon and New Moon Phases in Sei Enam Waters, Bintan Regency. Supervised by ARIEF PRATOMO dan RIKA ANGGRAINI.

Mangrove ecosystems are tropical coastal vegetation that can grow in tidal areas of seawater. These ecosystems play an important role in providing habitat for various fauna, including gastropods, which can be used as bioindicators of environmental health. This study aims to identify the types of Gastropod communities and describe the differences in the density of these communities based on the full moon and perbani phases in the Sei Enam mangrove ecosystem, Bintan Regency. The research will be carried out in February 2025 in East Bintan District, with two observation stations. The tools and materials used include GPS, roll meters, transects, sediment cores, and water quality measuring devices such as thermometers, multitesters, and handrefractometers. The research procedure includes sampling Gastropods at low tide, where samples are taken from a 1 x 1 m plot attached to mangrove roots, stems, and leaves. The two research stations are considered to represent the condition of macrozoobentos in the Sei Enam mangroves. Station 1 is located in the upstream area, and Station 2 is located in the estuary area with mangrove vegetation near the fishing boat dock. Gastropod data in mangrove ecosystems was carried out 4 times, namely: full moon and perbani 1, and moon pernama and perbani 2. Data analysis was carried out by calculating density, diversity, uniformity, and dominance using appropriate formulas. Based on the results of research conducted in Sei Enam Waters, 11 types of Gastropods were found, namely *Casidula aurisferis*, *Ellobium aurisjudae*, *Ceritidae quoyi*, *Telescopium*, *Terebralia sulcata*, *Chicoreus capicunus*, *Indothais gradata*, *Strombus canarium*, *Nerita antiquata*, *Volegalea cochidium*. There is a difference in the composition of the type of Gastropod community between the full moon and permaciary phases. In the full moon phase, 10 species of Gastropods were found, while in the perbani phase only 9 species. The most dominant species in the full moon phase is *Ceritidae quoyi*, while in the perennial phase, the dominant species is *Nerita antiquata*. This suggests that the phases of the moon affect the existence and distribution of Gastropod species in mangrove ecosystems.

Keywords: Gastropoda, Mangrove, Perbani, Full Moon, , Sei Enam