

RINGKASAN

LASTIN HEBERTO FIKAR ELUAMA (19380032). Laju Pertumbuhan Rumput Laut Species Berbeda Yang Dibudidayakan Dengan Menggunakan Metode Keramba Jaring Apung Di Perairan Bitan Desa Tuapakas Kecamatan Kualin Kabupaten Timor Tengah Selatan. Wilson L. Tisera. S.Pi, M.Si, Ph.D sebagai Pembimbing I dan Rockie R. L Supit, S.Pi, M.Si sebagai Pembimbing II. Program Studi Manajemen Sumberdaya Perairan, Fakultas Perikanan dan Ilmu Kelautan, Universitas Kristen Artha Wacana.

Penelitian ini dilaksanakan di Perairan Bitan Desa Tuapakas Kecamatan Kualin Kabupaten Timor Tengah Selatan. Kecamatan Kualin, Kabupaten Timor Tengah Selatan, NTT, terdiri atas delapan desa, salah satunya Desa Tuapakas seluas 20,76 km². Desa ini memiliki potensi budidaya rumput laut dan pariwisata Pantai Oebon, namun pemanfaatan budidaya rumput laut masih terbatas karena kurangnya pengetahuan masyarakat. Penduduk umumnya bekerja sebagai petani dan nelayan. Pantai Oebon merupakan kawasan pesisir dengan suhu relatif tinggi, curah hujan rendah, serta kondisi perairan yang dipengaruhi pasang surut. Substrat dasarnya berupa karang mati, pasir, lumpur, dan lamun. Penelitian ini telah dilaksanakan pada bulan Juli 2026 di Perairan Bitan Desa Tuapakas Kecamatan Kualin Kabupaten Timor Tengah Selatan. Tujuan penelitian ini bertujuan untuk menganalisis pertumbuhan Rumput Laut species berbeda yang dibudidaya menggunakan metode keramba jaring apung untuk menghasilkan rumput laut yang berkualitas dengan metode yang efisien di Perairan Bitan Desa Tuapakas Kecamatan Kualin Kabupaten Timor Tengah Selatan. Hasil penelitian, *Eucheuma denticulatum* menunjukkan pertumbuhan terbaik dengan berat akhir 521,8 g, pertumbuhan mutlak 421,8 g, serta laju pertumbuhan harian/SGR 3,37%/hari, diikuti *Kappaphycus striatum* dengan berat akhir 332,2 g, pertumbuhan mutlak 232,2 g, dan SGR 2,45%/hari, sedangkan *Kappaphycus alvarezii* memiliki pertumbuhan terendah dengan berat akhir 196,4 g, pertumbuhan mutlak 96,4 g, dan SGR 1,38%/hari. Kondisi perairan Oebon secara umum mendukung pertumbuhan rumput laut dengan suhu 27–32°C, salinitas 27–36‰, kecerahan 2–4 m, dan pH 7,07–7,36, namun kecepatan arus yang mencapai 1,15 m/detik tergolong tinggi dan berpotensi menyebabkan kerusakan thallus. Dengan demikian, *E. denticulatum* merupakan jenis yang paling potensial dikembangkan di Perairan Bitan, dengan tetap memperhatikan pengaturan media budidaya dan pemantauan kondisi perairan.

Kata Kunci : Pertumbuhan *Kappaphycus alvarezii*, *Eucheuma denticulatum*, Metode Anaconda, Perairan Bitan.

SUMMARY

LASTIN HEBERTO FIKAR ELUAMA (19380032). Growth Rates of Different Seaweed Species Cultivated Using the Floating Net Cage Method in the Waters of Bitan, Tuapakas Village, Kualin Subdistrict, South Central Timor Regency. Wilson L. Tisera, S.Pi, M.Si, Ph.D., as First Advisor, and Rockie R. L. Supit, S.Pi, M.Si, as Second Advisor. Aquatic Resources Management Program, Faculty of Fisheries and Marine Sciences, Artha Wacana Christian University.

This study was conducted in the waters off Bitan, Tuapakas Village, Kualin Subdistrict, South Central Timor Regency. Kualin Subdistrict, South Central Timor Regency, NTT, consists of eight villages, one of which is Tuapakas Village, covering an area of 20.76 km². This village has potential for seaweed cultivation and tourism at Oebon Beach; however, the utilization of seaweed cultivation remains limited due to a lack of knowledge among the local community. The residents generally work as farmers and fishermen. Oebon Beach is a coastal area with relatively high temperatures, low rainfall, and water conditions influenced by tides. The seabed consists of dead coral, sand, mud, and seagrass. This study was conducted in July 2026 in the waters off Bitan, Tuapakas Village, Kualin Subdistrict, South Central Timor Regency. The objective of this study is to analyze the growth of different seaweed species cultivated using the floating net pen method to produce high-quality seaweed efficiently in the waters off Bitan, Tuapakas Village, Kualin Subdistrict, South Central Timor Regency. The results of the study showed that *Eucheuma denticulatum* exhibited the best growth, with a final weight of 521.8 g, absolute growth of 421.8 g, and a daily growth rate (SGR) of 3.37%/day, followed by *Kappaphycus striatum* with a final weight of 332.2 g, absolute growth of 232.2 g, and an SGR of 2.45%/day, while *Kappaphycus alvarezii* exhibited the lowest growth, with a final weight of 196.4 g, absolute growth of 96.4 g, and a SGR of 1.38%/day. The water conditions in Oebon generally support seaweed growth, with temperatures of 27–32°C, salinity of 27–36‰, water clarity of 2–4 m, and a pH of 7.07–7.36; however, the current speed, which reaches 1.15 m/s, is relatively high and has the potential to cause damage to the thallus. Therefore, *E. denticulatum* is the species with the greatest potential for cultivation in the waters of Bitan, provided that the cultivation medium is properly managed and water conditions are closely monitored.

Keywords: Growth of *Kappaphycus alvarezii*, *Eucheuma denticulatum*, Anaconda Method, Bitan Waters.