

## DAFTAR PUSTAKA

- Abidin, J. 2018. Pengaruh Perbedaan Panjang Tali Gantung Terhadap Laju Pertumbuhan Rumput Laut *Kappaphycus alvarezii* Di Perairan Pantai Desa Nusantara Kecamatan Banda.
- Andreakis, N., G. Procaccini, and W. H. Kooistra. 2004. *Asparagopsis taxiformis* and *Asparagopsis armata* (Bonnemaisoniales, Rhodophyta): genetic and morphological identification of mediterranean populations. *European journal of phycology* 39 (3):273-283.
- Arisandi, A., A. Farid, E. A. Wahyuni, and S. Rokhmaniati. 2013. Dampak infeksi ice-ice dan epifit terhadap pertumbuhan *Eucheuma cottonii*. *Ilmu Kelautan: Indonesian Journal of Marine Sciences* 18 (1):1-6.
- Ariyati, R. W., L. Sya'rani, and E. Arini. 2007. Analisis kesesuaian perairan Pulau Karimunjawa dan Pulau Kemujan sebagai lahan budidaya rumput laut menggunakan sistem informasi geografis. *Jurnal Pasir Laut* 3 (1):27-45.
- Atmanisa, A. 2020. Analisis kualitas air pada kawasan budidaya rumput laut *Eucheuma cottoni* di Kabupaten Jeneponto, Universitas Negeri Makassar.
- Baba, I., F. F. Tilaar, and V. N. Watung. 2012. Struktur Komunitas dan Biomassa Rumput Laut (Seagrass) di Perairan Desa Tumbak Kecamatan Pusomaen. *Jurnal Ilmiah Platax* 1 (1):19-23.
- Batista, M. M. 2020. Reproduction And Cultivation Of *Asparagopsis taxiformis* (Delile) Trevisan, Universidade do Algarve (Portugal).
- Bengen, D. G. 2001. Ekosistem dan sumberdaya pesisir dan laut serta pengelolaan secara terpadu dan berkelanjutan.
- Booy, J., B. Burhanuddin, and A. Haris. 2019. Optimasi laju pertumbuhan rumput laut (*Eucheuma cottonii*) pada kedalaman yang berbeda di Desa Wamsisi, Kabupaten Buru Selatan, Provinsi Maluku. *Octopus: Jurnal Ilmu Perikanan* 8 (1):41-47.
- Chadwick, D., S. Sommer, R. Thorman, D. Fangueiro, L. Cardenas, B. Amon, and T. Misselbrook. 2011. Manure management: Implications for greenhouse gas emissions. *Animal feed science and technology* 166:514-531.
- De Oliveira, V. P., F. A. de Morais Freire, and E. M. Soriano. 2012. Influence of depth on the growth of the seaweed *Gracilaria birdiae* (Rhodophyta) in a shrimp pond. *Brazilian Journal of Aquatic Science and Technology* 16 (1):33-39.
- Dini, P. S. R., A. Susanto, and R. Pramesti. 2021. Pengaruh konsentrasi pupuk cair terhadap pertumbuhan dan kandungan klorofil-a rumput laut *Gracilaria verrucosa* (Harvey). *Journal of marine research* 10 (3):327-332.
- Dubois, B., N. W. Tomkins, R. D. Kinley, M. Bai, S. Seymour, N. A. Paul, and R. de Nys. 2013. Effect of tropical algae as additives on rumen in vitro gas production and fermentation characteristics. *American Journal of Plant Sciences* 4 (12B):34-43.
- Erniati, S. S., and S. P. Erlangga. 2009. Rumput Laut.
- Goldman, J. 2021. Optimizing the growth of the red seaweed *Asparagopsis taxiformis* by managing light quality and intensity.
- Guiry, M.D. & Guiry, G.M. 2015. AlgaeBase. World-wide electronic publication, National University of Ireland, Galway. <https://www.algaebase.org>.
- Guiry, M.D. & Guiry, G.M. 2020. AlgaeBase. World-wide electronic publication, National University of Ireland, Galway. <https://www.algaebase.org>.

- Guiry, M.D. & Guiry, G.M. 2024. AlgaeBase. World-wide electronic publication, National University of Ireland, Galway. <https://www.algaebase.org>
- Handayani, S., H. S. Fadhilah, and U. Ainisyifa. 2023. Diversity of macroalgae species on Pramuka Island, Thousand Islands Regency, DKI Jakarta Province. *Journal of Tropical Biodiversity* 3 (3):129-143.
- Hay, M. E. 1981. The functional morphology of turf-forming seaweeds: persistence in stressful marine habitats. *Ecology* 62 (3):739-750.
- Hidayat, T., M. Nurilmala, and E. Anwar. 2018. Karakterisasi rumput laut tropika dari Kepulauan Seribu sebagai sumber bahan baku kosmetik. *Creative Research Journal* 4 (02):49-62.
- Hurd, C. L. 2000. Water motion, marine macroalgal physiology, and production. *Journal of Phycology* 36 (3):453-472.
- Indriyani, S., H. Mahyuddin, and E. Indrawati. 2019. Analisa faktor oseanografi dalam mendukung budidaya rumput laut *Kappaphycus alvarezii* di Perairan Pulau Sembilan Kabupaten Sinjai. *Journal of Aquaculture and Environment* 2 (1):6-11.
- Kementerian Kelautan dan Perikanan. 2022. Ekspor Rumput Laut ke Pasar Eropa terus Digenjot. [terhubung berkala]. <http://www.kkp.go.id>
- Khasanah, U. 2013. Analisis kesesuaian perairan untuk lokasi budidaya rumput laut *eucheuma cottonii* di Perairan Kecamatan Sajoanging Kabupaten Wajo.
- Klein, J., and M. Verlaque. 2008. The *Caulerpa racemosa* invasion: a critical review. *Marine pollution bulletin* 56 (2):205-225.
- Kumar, M., P. Kumari, C. Reddy, and B. Jha. 2014. Salinity and desiccation induced oxidative stress acclimation in seaweeds. In *Advances in botanical research*: Elsevier, 91-123.
- Lase, P. J., S. F. Tuhumury, and H. J. Waas. 2020. Analisis Kesesuaian Lokasi Budidaya Rumput Laut (*Eucheuma cottonii*) dengan menggunakan sistem informasi geografis di Perairan Teluk Ambon Baguala. *Triton: Jurnal Manajemen Sumberdaya Perairan* 16 (2):77-83.
- Maia, M. R., A. J. Fonseca, H. M. Oliveira, C. Mendonça, and A. R. Cabrita. 2016. The potential role of seaweeds in the natural manipulation of rumen fermentation and methane production. *Scientific reports* 6 (1):32321.
- Mancuso, F. P., R. D'Agostaro, M. Milazzo, F. Badalamenti, L. Musco, B. Mikac, S. L. Brutto, and R. Chemello. 2022. The invasive seaweed *Asparagopsis taxiformis* erodes the habitat structure and biodiversity of native algal forests in the Mediterranean Sea. *Marine Environmental Research* 173:105515.
- Mardiana, S., S. P. Astuti, and M. Ghazali. 2019. Identifikasi makroalga epifit pada budidaya rumput laut *Kappaphycus alvarezii* DI Perairan Teluk Gerupuk Kabupaten Lombok Tengah.
- Masihin, A., N. V. Huliselan, and F. S. Pello. 2024. Faktor fisika dan kimia perairan yang mendukung pertumbuhan rumput laut di Dusun Wael Kabupaten Seram bagian Barat. *Triton: Jurnal Manajemen Sumberdaya Perairan* 20 (2):123-133.
- Mata, L., R. J. Lawton, M. Magnusson, N. Andreakis, R. de Nys, and N. A. Paul. 2017. Within-species and temperature-related variation in the growth and natural products of the red alga *Asparagopsis taxiformis*. *Journal of Applied Phycology* 29:1437-1447.
- Melsasail, K., A. Awan, and P. M. Papilaya. 2018. Analysis of environmental physical-chemical factors and macroalga species in the coastal water of

- Nusalaut, Central Maluku-Indonesia. *Sriwijaya Journal of Environment* 3 (1):31-36.
- Monro, K., A. G. Poore, and R. Brooks. 2007. Multivariate selection shapes environment-dependent variation in the clonal morphology of a red seaweed. *Evolutionary Ecology* 21:765-782.
- Muñoz-Tamayo, R., J. C. Chagas, M. Ramin, and S. J. Krizsan. 2021. Modelling the impact of the macroalgae *Asparagopsis taxiformis* on rumen microbial fermentation and methane production. *Peer Community Journal* 1.
- Nashrullah, M. F., A. Susanto, I. Pratikto, and E. Yati. 2021. Analisis Kesesuaian Lahan Budidaya Rumput Laut *Kappaphycus alvarezii* (Doty) menggunakan Citra Satelit Di Perairan Pulau Nusa Lembongan, Bali. *Journal of marine research* 10 (3):345-354.
- Othman, M. N. A., R. Hassan, M. N. Harith, and A. S. R. M. Sah. 2018. Morphological characteristics and habitats of red seaweed *Gracilaria* spp.(Gracilariaceae, Rhodophyta) in Santubong and Asajaya, Sarawak, Malaysia. *Tropical Life Sciences Research* 29 (1):87.
- Padilla-Gamino, J. L., and R. C. Carpenter. 2007. Seasonal acclimatization of *Asparagopsis taxiformis* (Rhodophyta) from different biogeographic regions. *Limnology and oceanography* 52 (2):833-842.
- Peteiro, C., and Ó. Freire. 2011. Effect of water motion on the cultivation of the commercial seaweed *Undaria pinnatifida* in a coastal bay of Galicia, Northwest Spain. *Aquaculture* 314 (1-4):269-276.
- Peterson, A. T. 2003. Predicting the geography of species' invasions via ecological niche modeling. *The quarterly review of biology* 78 (4):419-433.
- Pong-Masak, P. R., and N. H. Sarira. 2020. Effect of depth on the growth and carrageenan content of seaweed *Kappaphycus alvarezii* cultivated using verticulture method. Paper read at E3S Web of Conferences.
- Puspitasari, R., M. Muladno, A. Atabany, and S. Salundik. 2015. Produksi gas metana (CH<sub>4</sub>) dari feses sapi FH laktasi dengan pakan rumput gajah dan jerami padi. *Jurnal Ilmu Produksi dan Teknologi Hasil Peternakan* 3 (1):40-45.
- Ramin, M., J. C. Chagas, Y. Pal, R. Danielsson, P. Fant, and S. J. Krizsan. 2023. Reducing methane production from stored feces of dairy cows by *Asparagopsis taxiformis*. *Frontiers in sustainable food systems* 7:1187838.
- Ren, C. G., Z. Y. Liu, X. L. Wang, and S. Qin. 2022. The seaweed holobiont: from microecology to biotechnological applications. *Microbial Biotechnology* 15 (3):738-754.
- Roque, B. M., J. K. Salwen, R. Kinley, and E. Kebreab. 2019. Inclusion of *Asparagopsis armata* in lactating dairy cows' diet reduces enteric methane emission by over 50 percent. *Journal of Cleaner Production* 234:132-138.
- Roque, B. M., M. Venegas, R. D. Kinley, R. de Nys, T. L. Duarte, X. Yang, and E. Kebreab. 2021. Red seaweed (*Asparagopsis taxiformis*) supplementation reduces enteric methane by over 80 percent in beef steers. *Plos one* 16 (3):e0247820.
- Rosenberg, E., G. Sharon, I. Atad, and I. Zilber-Rosenberg. 2010. The evolution of animals and plants via symbiosis with microorganisms. *Environmental microbiology reports* 2 (4):500-506.
- Saifullah, S., E. S. Abdillah, and F. R. Indaryanto. 2024. The growth performance of *Kappaphycus alvarezii* cultivated in a lead (Pb) contaminated farming area. *Agrikan Jurnal Agribisnis Perikanan* 17 (1):203-208.

- Samosir, D. E., R. Pramesti, and N. Soenardjo. 2022. Kelimpahan Mikroalga Epifit pada daun Lamun *Thalassia hemprichii* dan *Cymodocea rotundata* di Pulau Sintok Taman Nasional Karimunjawa. *Journal of marine research* 11 (2):284-294.
- Sarita, I. D. A. A. D., I. M. Subrata, N. P. Sumaryani, and I. G. A. Rai. 2021. Identifikasi jenis rumput laut yang terdapat pada ekosistem alami perairan Nusa Pedida. *Emasains: Jurnal Edukasi Matematika dan Sains* 10 (1):141-154.
- Subagio, S., and M. Kasim. 2019. Identifikasi Rumput Laut (Seaweed) di Perairan Pantai Cemara, Jerowaru Lombok Timur Sebagai Bahan Informasi Keanekaragaman Hayati Bagi Masyarakat. *JISIP (Jurnal Ilmu Sosial dan Pendidikan)* 3 (1):308-321.
- Sunarernanda, Y. P. 2014. Hubungan kepadatan rumput laut dengan kelimpahan epifauna pada substrat berbeda Di Pantai Teluk Awur Jepara. *Management of Aquatic Resources Journal (MAQUARES)* 3 (3):43-51.
- Syamsuddin, R. 2014. Pengelolaan kualitas air: teori dan aplikasi di sektor perikanan: Pijar Press. Makassar.
- Tahe, S. 2020. Pemasyarakatan Teknologi Polikultur Udang Windu *Penaeus monodon* Fabr., Ikan Bandeng *Chanos chanos* Forskal dan Rumput Laut *Gracillaria verrucosa* di Tambak. *Jurnal Ilmu Alam dan Lingkungan* 11 (1).
- Thépot, V., A. H. Campbell, N. A. Paul, and M. A. Rimmer. 2021a. Seaweed dietary supplements enhance the innate immune response of the mottled rabbitfish, *Siganus fuscescens*. *Fish & Shellfish Immunology* 113:176-184.
- Thépot, V., A. H. Campbell, M. A. Rimmer, M. Jelocnik, C. Johnston, B. Evans, and N. A. Paul. 2022. Dietary inclusion of the red seaweed *Asparagopsis taxiformis* boosts production, stimulates immune response and modulates gut microbiota in Atlantic salmon, *Salmo salar*. *Aquaculture* 546:737286.
- Thépot, V., A. H. Campbell, M. A. Rimmer, and N. A. Paul. 2021b. Effects of a seaweed feed inclusion on different life stages of the mottled rabbitfish *Siganus fuscescens*. *Aquaculture Research* 52 (12):6626-6640.
- Torres, R., A. M. Campos, J. Goldman, I. Barrote, L. Mata, and J. Silva. 2024. Effects of light quality and intensity on growth and bromoform content of the red seaweed *Asparagopsis taxiformis*. *Journal of Applied Phycology* 36 (2):627-637.
- Ulqodry, T. Z., Y. Yulisman, M. Syahdan, and S. Santoso. 2010. Karakteristik dan sebaran nitrat, fosfat, dan oksigen terlarut di perairan Karimunjawa Jawa Tengah. *Jurnal Penelitian Sains* 13 (1).
- van der Loos, L. M., B. K. Eriksson, and J. F. Salles. 2019. The macroalgal holobiont in a changing sea. *Trends in Microbiology* 27 (7):635-650.
- Veeragurunathan, V., K. Eswaran, J. Malarvizhi, and M. Gobalakrishnan. 2015. Cultivation of *Gracillaria dura* in the open sea along the southeast coast of India. *Journal of Applied Phycology* 27:2353-2365.
- Wang, Y., Z. Xu, S. Bach, and T. McAllister. 2008. Effects of phlorotannins from *Ascophyllum nodosum* (brown seaweed) on in vitro ruminal digestion of mixed forage or barley grain. *Animal feed science and technology* 145 (1-4):375-395.
- Widyartini, D. S., and A. I. Insan. 2012. Keanekaragaman morfologi rumput laut *Sargassum* dari pantai permisan Cilacap dan potensi sumberdaya alginatnya untuk industri. *Prosiding* 3 (1).

- Yulianto, H., A. A. Damai, P. C. Delis, and Y. Elisdiana. 2017. Spatial analysis to evaluate the suitability of seaweed farming site in Lampung Bay, Indonesia. *Turkish Journal of Fisheries and Aquatic Sciences* 17 (6):1253-1261.
- Yuliyana, A., S. Rejeki, and L. L. Widowati. 2015. Pengaruh salinitas yang berbeda terhadap pertumbuhan rumput laut latoh (*Caulerpa lentillifera*) di Laboratorium Pengembangan Wilayah Pantai (LPWP) Jepara. *Journal of Aquaculture Management and Technology* 4 (4):61-66.
- Zanolla, M., M. Altamirano, R. Carmona, J. De La Rosa, A. Sherwood, and N. Andreakis. 2015. Photosynthetic plasticity of the genus *Asparagopsis* (Bonnemaisoniales, Rhodophyta) in response to temperature: implications for invasiveness. *Biological Invasions* 17:1341-1353.
- Zanolla, M., R. Carmona, J. De la Rosa, N. Salvador, A. Sherwood, N. Andreakis, and M. Altamirano. 2014. Morphological differentiation of cryptic lineages within the invasive genus *Asparagopsis* (Bonnemaisoniales, Rhodophyta). *Phycologia* 53 (3):233-242.