

DAFTAR PUSTAKA

- Abdullah, A., Sativa, H. A., Nurhayati, T., dan Nurilmala, M. 2019. Pemanfaatan DNA Barcoding untuk Ketertelusuran Label Berbagai Produk Olahan Ikan Berbasis Surimi Komersial. *Jurnal Pengolahan Hasil Perikanan Indonesia*, **22**(3): 508–519.
- Adam, M. A., Hardoko, H., dan Maftuch, M. 2013. Aktivitas Antibakteri Ekstrak Fenol *Gracillaria verrucosa* terhadap Bakteri *Aeromonas salmonicida* secara in Vitro. *Natural B*, **2**(1): 1–5.
- Adji, D., Zulyanti, dan Larashanty, H. 2007. Perbandingan Efektivitas Sterilisasi Alkohol 70% Inframerah, Otoklaf, dan Ozon Terhadap Pertumbuhan Bakteri *Bacillus subtilis*. *Jurnal Sain Veteriner*, **25**(1): 17–24.
- Akinyemi, O. M. 2020. Antibiotic Resistance: An Investigation on Effectiveness of Antibiotics Treatment on Bacterial Growth. *Open Access Library Journal*, **7**(5): 1–17.
- Altschul, S. F., Gish, W., Miller, W., Myers, E. W., dan Lipman, D. J. 1990. Basic Local Alignment Search Tool. *Journal of Molecular Biology*, **215**(3): 403–410.
- Andrews, R. M., Bollar, G. E., Giattina, A. S., Dalecki, A. G., Wallace, J. R., Frantz, L., Eschliman, K., Covarrubias-Zambrano, O., Keith, J. D., Duverger, A., Wagner, F., Wolschendorf, F., Bossmann, S. H., Birket, S. E., et al. 2023. Repurposing Sunscreen as an Antibiotic: Zinc-Activated Avobenzone Inhibits Methicillin-Resistant *Staphylococcus aureus*. *Metalomics*, **15**(9): 1–14.
- Arbit, N. I. S., Omar, S. B. A., Soekendarsi, E., Yasir, I., Tresnati, J., Mutmainnah, dan Tuwo, A. 2019. Morphological and Genetic Analysis of *Gracilaria* sp. Cultured in Ponds and Coastal Waters. *IOP Conference Series: Earth and Environmental Science*, **370**(1): 1–10.
- Aris, M., Muchdar, F., dan Labenua, R. 2021. Study of Seaweed *Kappaphycus alvarezii* Explants Growth in The Different Salinity Concentrations. *Jurnal Ilmiah Perikanan dan Kelautan*, **13**(1): 97–105.
- Arulkumar, A., Rosemary, T., Paramasivam, S., dan Rajendran, R. B. 2018. Phytochemical Composition, In Vitro Antioxidant, Antibacterial Potential and GC-MS Analysis of Red Seaweeds (*Gracilaria corticata* and *Gracilaria edulis*) from Palk Bay, India. *Biocatalysis and Agricultural Biotechnology*, **15**: 63–71.
- Asghar, A., Tan, Y. C., Shahid, M., Yow, Y. Y., dan Lahiri, C. 2021. Metabolite Profiling of Malaysian *Gracilaria edulis* Reveals Eplerenone as Novel Antibacterial Compound for Drug Repurposing Against MDR Bacteria. *Frontiers in Microbiology*, **12**: 1–13.
- Aulia, U., Helmi, T. Z., Darmawi, dan Fakhrurrazi. 2022. Isolation and Identification *Micrococcus luteus* and *Staphylococcus epidermidis* Bacteria on The Udder of Aceh Cattle. *Jurnal Ilmiah Mahasiswa Veteriner (JIMVET)*, **6**(2):

46–56.

- Aydogan, C. 2020. Recent Advances and Applications in LC-HRMS for Food and Plant Natural Products: a Critical Review. *Analytical and Bioanalytical Chemistry*, **412**(9): 1973–1991.
- Azzahra, A. N. A. dan Trimulyono, G. 2024. Antibacterial Activity of *Gracilaria verrucosa* Extract Against Fish Pathogenic Bacteria *Pseudomonas fluorescens* Patogen Pada Ikan. *Lentera Berkala Ilmiah Biologi*, **13**(1): 44–54.
- Badaring, D. R., Sari, S. P. M., Nurhabiba, S., Wulan, W., dan Lembang, S. A. R. 2020. Uji Ekstrak Daun Maja (*Aegle marmelos* L.) terhadap Pertumbuhan Bakteri *Escherichia coli* dan *Staphylococcus aureus*. *Indonesian Journal of Fundamental Sciences*, **6**(1): 16–26.
- Bahrin, Soekamto, N. H., dan Firdaus. 2021. In Vitro and in Silico Analysis for Antibacterial Activities of Various Extracts of *Gracilaria salicornia* (Rhodophyta) from Selayar Islands, Indonesia. *Egyptian Journal of Chemistry*, **64**(12): 7203–7212.
- Bangol, I., Momuat, L. I., dan Kumaunang, M. 2014. Barcode DNA Tumbuhan Panggi (*Pangium edule* R.) Berdasarkan Gen matK. *Jurnal MIPA*, **3**(2): 113.
- Bera, S., Zhanel, G. G., dan Schweizer, F. 2008. Design, Synthesis, and Antibacterial Activities of Neomycin-Lipid Conjugates: Polycationic Lipids with Potent Gram-Positive Activity. *Journal of Medicinal Chemistry*, **51**(19): 6160–6164.
- Bhernama, B. G. 2020. Skrining Fitokima Ekstrak Etanol Rumput Laut *Gracilaria* sp. Asal Desa Neusu Kabupaten Aceh Besar. *AMINA Ar-Raniry Chemistry Journal*, **2**(1): 1–5.
- Bintari, S. H., Dyah, A. P., Eka Veronika J., dan Citra Rivana R. 2008. Efek Inokulasi Bakteri *Micrococcus luteus* Terhadap Pertumbuhan Jamur Benang dan Kandungan Isoflavon pada Proses Pengolahan Tempe. *BIOSAINTIFIKA*, **1**(1): 1–8.
- Bocchi, M. B., Perna, A., Cianni, L., Vitiello, R., Greco, T., Maccauro, G., dan Perisano, C. 2020. A Rare Case of *Bacillus megaterium* Soft Tissues Infection. *Acta Biomedica*, **91**(14): 1–5.
- Boo, G. H., Bottalico, A., Le Gall, L., dan Yoon, H. S. 2023. Genetic Diversity and Phylogeography of a Turf-Forming Cosmopolitan Marine Alga, *Gelidium crinale* (Gelidiales, Rhodophyta). *International Journal of Molecular Sciences*, **24**(6): 1–17.
- Buriyo, A. S., Oliveira, E. C., Mtolera, M. S. P., dan Kivaisi, A. K. 2004. Taxonomic Challenges and Distribution of Gracilaroid Algae (Gracilariales, Rhodophyta) in Tanzania. *Western Indian Ocean Journal of Marine Science*, **3**(2): 135–141.
- Callow, R. K. dan Taylor, D. A. H. 1952. The Cardio-active Glycosides of

- Strophanthus sarmentosus* P.DC. “Xarmentoside B” and its Relation to an Original Sarmentobioside. *Journal of The Chemical Society*, 2299–2304.
- Chaleckis, R., Meister, I., Zhang, P., dan Wheelock, C. E. 2019. Challenges, Progress, and Promises of Metabolite Annotation for LC-MS-Based Metabolomics. *Current Opinion in Biotechnology*, **55**: 44–50.
- Chen, Y., Li, E. M., dan Xu, L. Y. 2022. Guide to Metabolomics Analysis: A Bioinformatics Workflow. *Metabolites*, **12**(357): 1–20.
- Chiao-Wei, C., Siew-Ling, H., dan Ching-Lee, W. 2011. Antibacterial Activity of *Sargassum polycystum* C. Agardh and *Padina australis* Hauck (Phaeophyceae). *African Journal of Biotechnology*, **10**(64): 14125–14131.
- Chirasuwan, N., Chaiklahan, R., Kittakoop, P., Chanasatru, W., Ruengjitchatchawalya, M., Tanticharoen, M., dan Bunnag, B. 2009. Anti HSV-1 Activity of Sulphoquinovosyl-diacylglycerol Isolated from *Spirulina platensis*. *Science Asia*, **35**(2): 137–141.
- Cohen, S., Faugeron, S., Martínez, E. A., Correa, J. A., Viard, F., Destombe, C., dan Valero, M. 2004. Molecular Identification of Two Sibling Species Under The Name *Gracilaria chilensis* (Rhodophyta, Gracilariales). *Journal of Phycology*, **40**(4): 742–747.
- Crisafulli, E., Aredano, I., Valzano, I., Burgazzi, B., Andrani, F., dan Chetta, A. 2019. Pleuritis with Pleural Effusion Due to a *Bacillus megaterium* Infection. *Respirology Case Reports*, **7**(1): 1–3.
- Davis, W. W. dan Stout, T. R. 1971. Disc Plate Method of Microbiological Antibiotic Assay I. Factors Influencing Variability and Error. *Applied microbiology*, **22**(4): 659–665.
- Dayuti, S. 2018. Antibacterial Activity of Red Algae (*Gracilaria verrucosa*) Extract Against *Escherichia coli* and *Salmonella typhimurium*. *IOP Conference Series: Earth and Environmental Science*, **137**(1): 1–6.
- Deng, C., Seidi, F., Yong, Q., Jin, X., Li, C., Zhang, X., Han, J., Liu, Y., Huang, Y., Wang, Y., Yuan, Z., dan Xiao, H. 2022a. Antiviral/Antibacterial Biodegradable Cellulose Nonwovens as Environmentally Friendly and Bioprotective Materials with Potential to Minimize Microplastic Pollution. *Journal of Hazardous Materials*, **424**: 1–11.
- Deng, C., Seidi, F., Yong, Q., Jin, X., Li, C., Zheng, L., Yuan, Z., dan Xiao, H. 2022b. Virucidal and Biodegradable Specialty Cellulose Nonwovens as Personal Protective Equipment Against COVID-19 Pandemic. *Journal of Advanced Research*, **39**: 147–156.
- Dewi, E. R. S. dan Nurwahyunani, A. 2018. Dasar-Dasar Mikrobiologi. UPGRIS Press, Semarang.
- Doyle, J. J. dan Doyle, J. L. 1990. Isolation of Plant DNA from Fresh Tissue. *Focus*, **12**(1): 12–16.

- Dukalang, F. I., Warganegara, F. M., dan Bundjali, B. 2023. Carbon Steel Biocorrosion Inhibition by Methanol Extract *Gracilaria edulis* in Seawater. *West Science Interdisciplinary Studies*, **1**(8): 492–516.
- Duncan, K. O. dan Smith, T. L. 2011. Primary Cutaneous Infection with *Bacillus megaterium* Mimicking Cutaneous Anthrax. *Journal of the American Academy of Dermatology*, **65**: 60–61.
- Erbasan, F. 2018. Brain Abscess Caused by *Micrococcus luteus* in a Patient with Systemic Lupus Erythematosus: Case-Based Review. *Rheumatology International*, **38**(12): 2323–2328.
- Fathiya, N., Harnelly, E., Thomy, Z., dan Iqbar. 2018. Molecular Identification of *Shorea johorensis* in Ketambe Research Station Gunung Leuser National Park. *Jurnal Natural*, **18**(2): 56–64.
- Fatmawati, F., Sibero, M. T., Trianto, A., Wijayanti, D. P., Sabdono, A., Pringgenies, D., dan Radjasa, O. K. 2022. The Influence of Fermentation Using Marine Yeast *Hortaea werneckii* SUCCY001 on Antibacterial and Antioxidant Activity of *Gracilaria verrucosa*. *Biodiversitas*, **23**(10): 5258–5266.
- Fayzi, L., Askarne, L., Cherifi, O., Boufous, E. H., dan Cherifi, K. 2020. Comparative Antibacterial Activity of Some Selected Seaweed Extracts from Agadir Coastal Regions in Morocco. *International Journal of Current Microbiology and Applied Sciences*, **9**(6): 390–399.
- Festi, Jumiati, dan La Aba. 2022. Identifikasi Jenis-jenis Makroalga di Perairan Pantai Sombano Kabupaten Wakatobi. *Jurnal Penelitian Biologi dan Kependidikan*, **1**(1): 11–24.
- Firdaus, M. 2019. Pigmen Rumput Laut dan Manfaat Kesehatannya. UB Press, Makassar.
- Furukawa, T., Nishida, M., Hada, T., Kuramochi, K., Sugawara, F., Kobayashi, S., Lijima, H., Shimada, H., Yoshida, H., dan Mizushina, Y. 2007. Inhibitory Effect of Sulfoquinovosyl Diacylglycerol on Prokaryotic DNA Polymerase I Activity and Cell Growth of *Escherichia coli*. *Journal of Oleo Science*, **56**(1): 43–47.
- Gonzalez del Val, A., Platas, G., Basilio, A., Cabello, A., Gorrochategui, J., Suay, I., Vicente, F., Portillo, E., Río, M. J. del, Reina, G. G., dan Peláez, F. 2001. Screening of Antimicrobial Activities in Red, Green and Brown Macroalgae from Gran Canaria (Canary Islands, Spain). *International Microbiology*, **4**(1): 35–40.
- Gunathilake, T., Akanbi, T. O., Suleria, H. A. R., Nalder, T. D., Francis, D. S., dan Barrow, C. J. 2022. Seaweed Phenolics as Natural Antioxidants, Aquafeed Additives, Veterinary Treatments and Cross-Linkers for Microencapsulation. *Marine Drugs*, **20**(445): 1–44.
- Guo, F. P., Fan, H. W., Liu, Z. Y., Yang, Q. W., Li, Y. J., dan Li, T. S. 2015. Brain

- Abscess Caused by *Bacillus megaterium* in an Adult Patient. *Chinese Medical Journal*, **128**(11): 1552–1554.
- Gurgel, C. F. D. dan Fredericq, S. 2004. Systematics of The Gracilariaeae (Gracilariales, Rhodophyta): A Critical Assessment Based on rbcL Sequence Analyses. *Journal of Phycology*, **40**(1): 138–159.
- Hamid, S. S., Wakayama, M., Ichihara, K., Sakurai, K., Ashiro, Y., Kadokawa, R., Soga, T., dan Tomita, M. 2019. Metabolome Profiling of Various Seaweed Species Discriminates Between Brown, Red, and Green Algae. *Planta*, **249**(6): 1921–1947.
- Hatmanti, A. 2000. Pengenalan *Bacillus* spp. *Oseana*, **25**(1): 31–41.
- Hemasudha, R. T., dan P. B. 2019. Antioxidant, Antibacterial, and Anticancer Activity from Marine Red Algae *Gracilaria edulis*. *Asian Journal of Pharmaceutical and Clinical Research*, **12**(2): 276–279.
- Herliany, N. E., Purnama, D., dan Yamadipo, Y. 2014. Biodiversity of Macroalgae in Coastal Waters of Pantai Pasar Lama and Pantai Cukuh, Kaur Regency, Province of Bengkulu. *Journal of Aquatropica Asia*, **1**: 1–4.
- Holmes, S. 2003. Bootstrapping Phylogenetic Trees: Theory and Methods. *Statistical Science*, **18**(2): 241–255.
- Hu, G. dan Kurgan, L. 2018. Sequence Similarity Searching. *Current Protocols in Protein Science*, **95**(1): 1–19.
- Ianniello, N. M., Andrade, D. C., Ivancic, S., Eckardt, P. A., dan Lemos Ramirez, J. C. 2019. Native Valve Infective Endocarditis Due to *Micrococcus luteus* in a Non-Hodgkin's Lymphoma Patient. *IDCases*, **18**: 1–3.
- Indrawati, G., Arthana, I. W., dan Merit, I. N. 2009. Studi Komunitas Rumput Laut di Pantai Sanur dan Pantai Sawangan Nusa Dua Bali. *Ecotrophic*, **4**(2): 73–79.
- Iriany, Angkasa, H., dan Namira, C. A. 2021. Ekstraksi Tanin dari Buah Balakka (*Phyllanthus emblica* L.) dengan Bantuan Microwave: Pengaruh Daya Microwave, Perbandingan Massa Kering Terhadap Jumlah Pelarut Etil Asetat. *Jurnal Teknik Kimia USU*, **10**(1): 8–12.
- Ivan, I., Sudharta, H., Tandarto, K., Budiman, F., dan Stella, M. M. 2021. Potensi Dimer A3-APO untuk Mengontrol Populasi *Escherichia coli* Resisten Obat: Sebuah Tinjauan Pustaka. *Journal of Medicine and Health*, **3**(2): 208–223.
- Juneidi, A. W. 2004. Rumput laut, Jenis, dan Morfologisnya. Departemen Pendidikan Nasional, Jakarta.
- Kaimudin, M., Manduapessy, K. R. W., dan Sumarsana. 2020. Potential of Seaweed *Gracilaria* sp. as Inhibitors of *Escherichia coli*, *Clostridium perfringens* and *Staphylococcus aureus*. *IOP Conference Series: Earth and Environmental Science*, **517**(1): 1–9.

- Kandati, F. R. S., Kepel, R. C., Rangan, J. K., Gerung, G. S., Salaki, M. S., dan Lasabuda, R. 2021. Biodiversitas Makroalga di Perairan Pesisir Ondong. *Jurnal Ilmiah Platax*, **9**(1): 100–114.
- Kaper, J. B., Nataro, J. P., dan Mobley, H. L. T. 2004. Pathogenic *Escherichia coli*. *Nature Reviews Microbiology*, **2**(2): 123–140.
- Kasanah, N., Setyadi, Triyanto, dan Trialfhianty, T. I. 2018. Rumput Laut Indonesia: Keanekaragaman Rumput Laut di Gunung Kidul, Yogyakarta. Gadjah Mada University Press, Yogyakarta.
- Kasanah, N., Triyanto, Seto, D. S., Amelia, W., dan Isnansetyo, A. 2015. Review Antibacterial Compounds from Red Seaweeds (Rhodophyta). *Indonesian Journal of Chemistry*, **15**(2): 201–209.
- Katamang, A. V., Rumampuk, N. D. C., dan Gerung, G. S. 2016. Telaah Bentuk Sel Acanthophora spicifera dari Pantai Mokupa Sulawesi Utara. *Jurnal Pesisir dan Laut Tropis*, **1**(1): 26–29.
- Kim, S., Choi, S. K., Van, S., Kim, S. T., Kang, Y. H., dan Park, S. R. 2022. Geographic Differentiation of Morphological Characteristics in the Brown Seaweed *Sargassum thunbergii* along the Korean Coast: A Response to Local Environmental Conditions. *Journal of Marine Science and Engineering*, **10**(549): 1–15.
- Kimura, M. 1980. A Simple Method for Estimating Evolutionary Rates of Base Substitutions Through Comparative Studies of Nucleotide Sequences. *Journal of Molecular Evolution*, **16**(2): 111–120.
- Kolanjinathan, K. dan Saranraj, P. 2014. Pharmacological Efficacy of Marine Seaweed *Gracilaria edulis* Extracts Against Clinical Pathogens. *Global Journal of Pharmacology*, **8**(2): 268–274.
- Kumar, H. S., Otta, S. K., Karunasagar, I., dan Karunasagar, I. 2001. Detection of Shiga-toxigenic *Escherichia coli* (STEC) in Fresh Seafood and Meat Marketed in Mangalore, India by PCR. *Letters in Applied Microbiology*, **33**(5): 334–338.
- Kumar, H. S., Parvathi, A., Karunasagar, I., dan Karunasagar, I. 2005. Prevalence and Antibiotic Resistance of *Escherichia coli* in Tropical Seafood. *World Journal of Microbiology and Biotechnology*, **21**(5): 619–623.
- Lakshmamma, P., Sujatha, M., Suresh, G., Prasad, R. D., Rao, S. V. R., Rathnakumar, A. L., Boopathi, T., Duraimurugan, P., Yadav, P., dan Mathur, R. K. 2023. ICAR-IIOR Annual Report 2022. ICAR-Indian Institute of Oilseeds Research, Telangana.
- Lantah, P. L., Montolalu, L. A., dan Reo, A. R. 2017. Kandungan Fitokimia dan Aktivitas Antioksidan Ekstrak Metanol Rumput Laut *Kappaphycus alvarezii*. *Media Teknologi Hasil Perikanan*, **5**(3): 73–79.
- Lestari, S., Palupi, D., dan Aryani, R. D. 2021. Karakter Morfologi dan Anatomi Sawilangit (*Vernonia cinerea* L.) Pada Ketinggian yang Berbeda. *Berita Biologi*,

- 20**(2): 1-11.
- Liao, L. M. dan Hommersand, M. H. 2003. A Morphological Study and Taxonomic Reassessment of The Generitype Species in The Gracilariaeae. *Journal of Phycology*, **39**(6): 1207-1232.
- Llompart, M., Garcia-Jares, C., dan Celeiro, M. 2019. Microwave-Assisted Extraction. *Encyclopedia of Analytical Science*, **1**(1): 1-11.
- Lomartire, S., Cotas, J., Pacheco, D., Marques, J. C., Pereira, L., dan Gonçalves, A. M. M. 2021. Environmental Impact on Seaweed Phenolic Production and Activity: An Important Step for Compound Exploitation. *Marine Drugs*, **19**(245): 1-20.
- Lomartire, S. dan Gonçalves, A. M. M. 2023. An Overview on Antimicrobial Potential of Edible Terrestrial Plants and Marine Macroalgae Rhodophyta and Chlorophyta Extracts. *Marine Drugs*, **21**(163): 1-35.
- López-Lara, I. M. dan Geiger, O. 2017. Bacterial Lipid Diversity. *Biochimica et Biophysica Acta*, **1862**(11): 1287-1299.
- Ma, S. dan Huang, J. 2009. Regularized Gene Selection in Cancer Microarray Meta-Analysis. *BMC Bioinformatics*, **10**(1): 1-12.
- Maduriana, I. M. dan Sudira, I. W. 2009. The Screening and Activity Test of Antibacteria from some Seaweeds, in Batu Bolong Canggu and Serangan Beach. *Buletin Veteriner Udayana*, **1**(2): 69-76.
- Mangurana, W. O. I., Yusnaini, Y., dan Sahidin, S. 2019. Analisis LC-MS/MS (Liquid Chromatograph Mass Spectrometry) dan Metabolit Sekunder serta Potensi Antibakteri Ekstrak n-Heksana Spons *Callyspongia aerizusa* yang Diambil Pada Kondisi Tutupan Terumbu Karang yang berbeda di Perairan Teluk Staring. *Jurnal Biologi Tropis*, **19**(2): 131-141.
- Meinita, M. D. N., Akromah, N., Andriyani, N., Setijanto, Harwanto, D., dan Liu, T. 2021. Molecular Identification of *Gracilaria* Species (Gracilariales, Rhodophyta) Obtained from The South Coast of Java Island, Indonesia. *Biodiversitas*, **22**(7): 3046-3056.
- Meriam, W. P. M., Kepel, R. C., dan Lumingas, L. J. L. 2016. Inventarisasi Makroalga di Perairan Pesisir Pulau Mantehage Kecamatan Wori, Kabupaten Minahasa Utara, Provinsi Sulawesi Utara. *Jurnal Ilmiah Platax*, **4**(2): 84-108.
- Merlusca, I. P., Matiut, D. S., Lisa, G., Silion, M., Gradinaru, L., Oprea, S., dan Popa, I. M. 2017. Preparation and Characterization of Chitosan-Poly(vinyl alcohol)-Neomycin Sulfate Films. *Polymer Bulletin*, **75**(9): 3971-3986.
- Mishra, A. K. 2018. *Sargassum*, *Gracilaria* and *Ulva* Exhibit Positive Antimicrobial Activity Against Human Pathogens. *Open Access Library Journal*, **5**(1): 1-12.
- Mohiuddin, A. K. 2019. Sunscreen and Suntan Preparations. *ARC Journal of*

Pharmaceutical Sciences, **5**(2): 8–44.

- Mokoagow, B. L., Fatimah, F., dan Kumaunang, M. 2015. Penentuan Barcode DNA Berdasarkan Gen matK dan Analisis In-silico MatK Rumput Macan (*Lantana camara* L.). *Jurnal MIPA UNSRAT*, **4**(1): 24–28.
- Mondini, L., Noorani, A., dan Pagnotta, M. A. 2009. Assessing Plant Genetic Diversity by Molecular Tools. *Diversity*, **1**(1): 19–35.
- Muhammed, A. I., Kamal, R. A., Almonderi, D. M. H., Galib, M., dan Razzaq, B. I. A. 2022. Study the Antibacterial Effect of Neomycin Sulphate As Suspension Formula for Diarrhoea. *MINAR International Journal of Applied Sciences and Technology*, **4**(1): 98–105.
- Naufal, I., A, N., A, R., I, M., dan S.A.A, H. 2022. Feasibility Analysis of Seaweed, *Gracilaria* sp., Cultivation in Polyculture System In Ponds: A Case Study From Domas Village, Pontang Serang Banten, Indonesia. *Asian Journal of Fisheries and Aquatic Research*, **16**(1): 1–11.
- Nikmah, U. 2019. Mengenal Rumput Laut. ALPRIN, Semarang.
- Nørskov, N. P., Bruhn, A., Cole, A., dan Nielsen, M. O. 2021. Targeted and Untargeted Metabolic Profiling to Discover Bioactive Compounds in Seaweeds and Hemp Using Gas and Liquid Chromatography-Mass Spectrometry. *Metabolites*, **11**(259): 1–19.
- Nugroho, A. 2017. Teknologi Bahan Alam. Lambung Mangkurat University Press, Banjarmasin.
- Ojha, K. K., Mishra, S., dan Singh, V. K. 2022. Bioinformatics (Chapter 5: Computational Molecular Phylogeny: Concepts and Applications). Academic Press, Cambridge.
- Panjaitan, R. S. dan Yuliana, W. 2022. Antioxidant and Toxicity Activities of *Gracilaria gracilis* Methanol Extract Based on Different Extraction Methods. *Jurnal Kimia Riset*, **7**(2): 141–151.
- Patti, G. J., Yanes, O., dan Siuzdak, G. 2012. Metabolomics: The Apogee of The Omic Trilogy. *Nat Rev Mol Cell Biol*, **13**(4): 263–269.
- Peces, R., Gago, E., Tejada, F., Laures, A. S., dan Alvarez-Grande, J. 1997. Relapsing Bacteraemia Due to *Micrococcus luteus* in a Haemodialysis Patient with a Perm-Cath Catheter. *Nephrology Dialysis Transplantation*, **12**(11): 2428–2429.
- Plouguerné, E., De Souza, L. M., Sasaki, G. L., Cavalcanti, J. F., Romanos, M. T. V., Da Gama, B. A. P., Pereira, R. C., dan Barreto-Bergter, E. 2013. Antiviral Sulfoquinovosyldiacylglycerols (SQDGs) from The Brazilian Brown Seaweed *Sargassum vulgare*. *Marine Drugs*, **11**(11): 4628–4640.
- Pong-Masak, P. R., Priono, B., dan Insan, I. 2011. Seleksi Klon Bibit Rumput Laut, *Gracilaria verrucosa*. *Media Akuakultur*, **6**(1): 1–12.

- Pong-Masak, P. R. dan Simatupang, N. F. 2016. Teknologi Produksi Bibit Rumput Laut *Gracilaria* sp. Unggul Melalui Peremajaan Stek. Loka Riset Budidaya Rumput Laut, Boalemo.
- Prasad, M. P., Shekhar, S., dan Rindhe, G. 2012. Antibacterial Activity of Seaweed (*Gracilaria* species) Extracts Against Infectious Pathogens. *Asian Journal of Biological Life Sciences*, **1**(3): 219–222.
- Prestinaci, F., Pezzotti, P., dan Pantosti, A. 2015. Antimicrobial Resistance: A Global Multifaceted Phenomenon. *Pathogens and Global Health*, **109**(7): 309–318.
- Purwaningsih, S. dan Deskawati, E. 2020. Karakteristik dan Aktivitas Antioksidan Rumput Laut *Gracilaria* sp. Asal Banten. *Jurnal Pengolahan Hasil Perikanan Indonesia*, **23**(3): 503–512.
- Putri, F. E., Diharmi, A., dan Karnila, R. 2023. Identifikasi Senyawa Metabolit Sekunder Pada Rumput Laut Coklat (*Sargassum plagyophyllum*) dengan Metode Fraksinasi. *Jurnal Teknologi dan Industri Pertanian Indonesia*, **15**(1): 41–46.
- Quitério, E., Grossos, C., Ferraz, R., Delerue-Matos, C., dan Soares, C. 2022. A Critical Comparison of the Advanced Extraction Techniques Applied to Obtain Health-Promoting Compounds from Seaweeds. *Marine Drugs*, **20**(677): 1–40.
- Rajasekar, T., Shamya, M., dan Joseph, J. 2019. Screening of Phytochemical, Antioxidant Activity, and Anti-Bacterial Activity of Marine Seaweeds. *International Journal of Pharmacy and Pharmaceutical Sciences*, **11**(1): 61–66.
- Rebecca, J., V, D., S, S., dan Das, M. P. 2013. In Vitro Antimicrobial Activity of *Gracilaria* sp. and *Enteromorpha* sp. *Research Journal of Pharmaceutical, Biological, and Chemical Sciences*, **4**(1): 693–697.
- Rini, C. S. dan Rohmah, J. 2020. Bakteriologi Dasar. UMSIDA Press, Sidoarjo. **1**(1).
- Ristiana, R., Rustam, A., Zein, M. S. A., dan Zulkarnain. 2021. DNA Barcoding Pada Familia Bovidae Berdasarkan Gen CO1 (Cytochrome C Oxydase Subunit 1). *Jurnal Mahasiswa Biologi*, **1**(2): 63–68.
- Rizki, P. 2020. Keanekaragaman Jenis Makroalga yang Terdapat di Kawasan Pantai Ujoeng Kareung Aceh Besar Sebagai Referensi Mata Kuliah Botani Tumbuhan Rendah, Universitas Islam Negeri Ar-Raniry Darussalam, Banda Aceh.
- Rosidiani, E. P., Arumingtyas, E. L., dan Azrianingsih, R. 2013. Analisis Variasi Genetik *Amorphophallus muelleri* Blume dari Berbagai Populasi di Jawa Timur Berdasarkan Sekuen Intron trnL. *Floribunda*, **4**(6): 129–137.
- Rukmi, A. S., Sunaryo, dan Djunaedi, A. 2012. Sistem Budidaya Rumput Laut *Gracilaria verrucosa* di Pertambakan dengan Perbedaan Waktu Perendaman di dalam Larutan NPK. *Journal of Marine Research*, **1**(1): 90–94.

- Sanger, F., Nicklen, S., dan Coulson, A. R. 1977. DNA Sequencing with Chain-Terminating Inhibitors. *Proc. Nati. Acad. Sci. USA*, **74**(12): 5463–5467.
- Santosa, T. A., Fietri, W. A., Razak, A., dan Sumarmin, R. 2021. Phylogenetic Analysis of The Grouper Family (Serranidae) from Various Local Markets in Indonesian Waters Using COI (Cytochrome Oxidase I). *Edubiotik : Jurnal Pendidikan, Biologi dan Terapan*, **6**(1): 74–82.
- Sari, B. L., Triastinurmiatiningsih, T., dan Haryani, T. S. 2020. Optimasi Metode Microwave-Assisted Extraction (MAE) untuk Menentukan Kadar Flavonoid Total Alga Coklat *Padina australis*. *ALCHEMY Jurnal Penelitian Kimia*, **16**(1): 38–49.
- Setyawati, R. dan Zubaidah, S. 2021. Optimasi Konsentrasi Primer dan Suhu Annealing dalam Mendeteksi Gen Leptin pada Sapi Peranakan Ongole (PO) Menggunakan Polymerase Chain Reaction (PCR). *Indonesian Journal of Laboratory*, **4**(1): 36–40.
- Shallcross, L. J. dan Davies, D. S. C. 2014. Antibiotic Overuse: a Key Driver of Antimicrobial Resistance. *British Journal of General Practice*, **64**(629): 604–605.
- Simpson, M. G. 2006. Plant Systematics. Elsevier Academic Press, San Diego, California.
- Sinurat, A. A. P., Renta, P. P., Herliany, N. E., Negara, B. F., dan Purnama, D. 2019. Uji Aktivitas Antibakteri Ekstrak Metanol Rumput Laut *Gracilaria edulis* terhadap Bakteri *Aeromonas hydrophila*. *Jurnal Enggano*, **4**(1): 105–114.
- Sjafrie, N. D. M. 1990. Beberapa Catatan Mengenai Rumput Laut *Gracilaria. Oseana*, **15**(4): 147–155.
- Sophian, A. 2021. Short Communication: Analysis of Purity and Concentration of Extracted DNA on Salted Fish Processed Food Products. *Asian Journal of Natural Product Biochemistry*, **19**(1): 21–24.
- Sophian, A. dan Syukur, A. 2021. Analysis of Purity and Concentration of Isolated DNA in Making Raw DNA of Rat Species. *Eruditio : Indonesia Journal of Food and Drug Safety*, **1**(2): 1–5.
- de Souza, L. M., Sasaki, G. L., Romanos, M. T. V., dan Barreto-Bergter, E. 2012. Structural Characterization and Anti-HSV-1 and HSV-2 Activity of Glycolipids from the Marine Algae *Osmundaria obtusiloba* Isolated from Southeastern Brazilian Coast. *Marine Drugs*, **10**(4): 918–931.
- Steiner, D., Malachová, A., Sulyok, M., dan Krska, R. 2021. Challenges and Future Directions in LC-MS-based Multiclass Method Development for The Quantification of Food Contaminants. *Analytical and Bioanalytical Chemistry*, **413**(1): 25–34.
- Sulistiani, R. P. dan Rahayuningsih, H. M. 2015. Pengaruh Ekstrak Lompong Mentah (*Colocasia esculenta* L Schoot) terhadap Aktivitas Fagositosis dan Kadar NO (Nitrit Oksida) Mencit BALB/C Sebelum dan Sesudah Terinfeksi

- Listeria monocytogenes*. *Journal of Nutrition College*, **4**(2): 409–415.
- Sunaryo, W. 2015. Aplikasi DNA Barcoding untuk Analisis Keragaman Genetik lai-durian (*Durio zibethinus* x *kutejensis*) Asal Kalimantan Timur. *Prosiding Seminar Nasional Masyarakat Biodiversitas Indonesia*, **1**(6): 1273–1277.
- Suparmi dan Sahri, A. 2009. Kajian Pemanfaatan Sumber Daya Rumput Laut dari Aspek Industri dan Kesehatan. *Majalah Ilmiah Sultan Agung*, **44**(118): 95–116.
- Susanti, F., Adharini, R. I., Sari, D. W. K., dan Setyobudi, E. 2023. Genetic Diversity of *Gracilaria* spp. in the Intertidal Zone on the South Coast of Yogyakarta, Indonesia Based on DNA Barcoding with rbcL Marker. *Hayati Journal of Biosciences*, **30**(5): 907–917.
- Susanto, N. S., Prasetyaningsih, A., dan Madyaningrana, K. 2021. Potency of Local *Gracilaria* sp. Extract as an Antibacterial Against Skin Disease Pathogen. *Scholars Academic Journal of Biosciences*, **9**(8): 215–222.
- Tampubolon, A., Gerung, G. S., dan Wagey, B. 2013. Biodiversitas Alga Makro di Lagun Pulau Pasige, Kecamatan Tagulandang, Kabupaten Sitara. *Jurnal Pesisir dan Laut Tropis*, **2**(1): 35–43.
- Tamura, K., Stecher, G., dan Kumar, S. 2021. MEGA11: Molecular Evolutionary Genetics Analysis version 11. *Molecular Biology and Evolution*, **38**: 3022–3027.
- Tasma, I. M. 2015. Pemanfaatan Teknologi Sekuensing Genom untuk Mempercepat Program Pemuliaan Tanaman. *Jurnal Penelitian dan Pengembangan Pertanian*, **34**(4): 159–168.
- Theodoridis, G., Gika, H. G., dan Wilson, I. D. 2011. Mass Spectrometry Based Holistic Analytical Approaches for Metabolite Profiling in Systems Biology Studies. *Mass Spectrometry Reviews*, **30**(5): 884–906.
- Thien, V. Y., Yong, W. T. L., Anton, A., dan Chin, G. J. W. L. 2020. A Multiplex PCR Method for Rapid Identification of Commercially Important Seaweeds *Kappaphycus alvarezii*, *Kappaphycus striatus* and *Eucheuma denticulatum* (Rhodophyta, Solieriaceae). *Regional Studies in Marine Science*, **40**(101499): 1–32.
- Tindi, M., Mamangkey, N. G. F., dan Wullur, S. 2017. DNA Barcode dan Analisis Filogenetik Molekuler Beberapa Jenis Bivalvia Asal Perairan Sulawesi Utara Berdasarkan Gen COI. *Jurnal Pesisir dan Laut Tropis*, **1**(2): 32–38.
- Torres, P., Santos, J. P., Chow, F., dan dos Santos, D. Y. A. C. 2019. A Comprehensive Review of Traditional Uses, Bioactivity Potential, and Chemical Diversity of The Genus *Gracilaria* (Gracilariales, Rhodophyta). *Algal Research*, **37**(1): 288–306.
- Toy, T. S. S., Lampus, B. S., dan Hutagalung, B. S. P. 2015. Uji Daya Hambat Ekstrak Rumput Laut *Gracilaria* sp. Terhadap Pertumbuhan Bakteri *Staphylococcus aureus*. *Jurnal e-GiGi*, **3**(1): 153–159.

- Tungadi, R. 2017. Teknologi Sediaan Steril. IKAPI, Jakarta.
- Valencia, C. A., Pervaiz, M. A., Husami, A., Qian, Y., dan Zhang, K. 2013. Sanger Sequencing Principles, History, and Landmarks. In: *Next Generation Sequencing Technologies in Medical Genetics*. Springer Briefs in Genetics, Springer, New York. hal. 3–11
- Ventola, C. L. 2015. The Antibiotic Resistance Crisis. *P&T Journal*, **40**(4): 277–283.
- Vinuesa, P. 2007. Bioinformatics Explained: BLAST. CLCBio, Aarhus.
- Wang, H., Li, Y. L., Shen, W. Z., Rui, W., Ma, X. J., dan Cen, Y. Z. 2007. Antiviral Activity of a Sulfoquinovosyl-diacylglycerol (SQDG) Compound Isolated from The Green Alga *Caulerpa racemosa*. *Botanica Marina*, **50**(3): 185–190.
- Wharton, M., Rice, J. R., McCallum, R., dan Gallis, H. A. 1986. Septic Arthritis Due to *Micrococcus luteus*. *The Journal of Rheumatology*, **13**(3): 659–660.
- Wibowo, J. T., Kellermann, M. Y., Versluis, D., Putra, M. Y., Murniasih, T., Mohr, K. I., Wink, J., Engelmann, M., Praditya, D. F., Steinmann, E., dan Schupp, P. J. 2019. Biotechnological Potential of Bacteria Isolated from The Sea Cucumber *Holothuria leucospilota* and *Stichopus vastus* from Lampung, Indonesia. *Marine Drugs*, **17**(635): 1–25.
- Widodo, R. W., Subagyo, S., dan Pramesti, R. 2019. Aktivitas Antibakteri Ekstrak Metanol Rumput Laut *Gracilaria verrucosa*, Greville, 1830 (Florideophyceae : Gracilariaeae) di Balai Besar Perikanan Budidaya Air Payau Jepara. *Journal of Marine Research*, **8**(3): 285–290.
- Widowaty, W., Setiawan, Y., dan Perdana, W. W. 2020. Aktivitas Antioksidan Ekstrak Metanol *Gracilaria* sp. dan *Ulva* sp. dari Pantai Sayang Heulang. *Agroscience*, **10**(2): 203–209.
- Widyasanti, A., Nuraini Maulfia, D., dan Dadan, R. 2019. The Quality Characteristics of White Tea (*Camellia sinensis*) Extracted from Stratification Maceration Using N-Hexane, 70% Acetone, and 96% Ethanol Solvent. *Jurnal Teknik Pertanian Lampung*, **8**(4): 293–299.
- Wijaya, A. P., Sabdono, A., Sibero, M. T., Trianto, A., dan Radjasa, O. K. 2022. Antimicrobial Activity of Nudibranch *Chromodoris lineolata* Associated Bacteria Against Skin Diseases Pathogens from Jepara Coastal Waters, Indonesia. *Biodiversitas*, **23**(4): 1911–1919.
- Yang, E. C., Kim, M. S., Geraldino, P. J. L., Sahoo, D., Shin, J. A., dan Boo, S. M. 2008. Mitochondrial cox1 and Plastid rbcL Genes of *Gracilaria vermiculophylla* (Gracilariaeae, Rhodophyta). *Journal of Applied Phycology*, **20**(2): 161–168.
- Yang, Y., Zhang, M., Alalawy, A. I., Almutairi, F. M., Al-Duais, M. A., Wang, J., dan Salama, E. S. 2021. Identification and Characterization of Marine Seaweeds for Biocompounds Production. *Environmental Technology and Innovation*, **24**(101848): 1–12.

- Yanuarti, R., Nurjanah, N., Anwar, E., dan Hidayat, T. 2017. Profile of Phenolic and Antioxidants Activity from Seaweed Extract *Turbinaria conoides* and *Eucheuma cottonii*. *Jurnal Pengolahan Hasil Perikanan Indonesia*, **20**(2): 230–237.
- Yao, W., Qiu, H.-M., Cheong, K.-L., dan Zhong, S. 2022. Advances in Anti-Cancer Effects and Underlying Mechanisms of Marine Algae Polysaccharides. *International Journal of Biological Macromolecules*, **221**: 472–485.
- Yow, Y. Y., Lim, P. E., dan Phang, S. M. 2011. Genetic Diversity of *Gracilaria changii* (Gracilariaeae, Rhodophyta) from West Coast, Peninsular Malaysia Based on Mitochondrial cox1 Gene Analysis. *Journal of Applied Phycology*, **23**(2): 219–226.
- Yow, Y. Y., Lim, P. E., dan Phang, S. M. 2013. Assessing The Use of Mitochondrial cox1 Gene and cox2-3 spacer for Genetic Diversity Study of Malaysian *Gracilaria changii* (Gracilariaeae, Rhodophyta) from Peninsular Malaysia. *Journal of Applied Phycology*, **25**(3): 831–838.
- Yu, F., Zhang, M., Sun, J., Wang, F., Li, X., Liu, Y., Wang, Z., Zhao, X., Li, J., Chen, J., Du, G., dan Xue, Z. 2022. Improved Neomycin Sulfate Potency in *Streptomyces fradiae* Using Atmospheric and Room Temperature Plasma (ARTP) Mutagenesis and Fermentation Medium Optimization. *Microorganisms*, **10**(94): 1–17.
- Yuenleni, Y. 2019. Langkah-Langkah Optimasi PCR. *Indonesian Journal of Laboratory*, **1**(3): 51–56.
- Zahra, A., Sukenda, S., dan Wahjuningrum, D. 2017. Extract of Seaweed *Gracilaria verrucosa* as Immunostimulant to Controlling White Spot Disease in Pacific White Shrimp *Litopenaeus vannamei*. *Jurnal Akuakultur Indonesia*, **16**(2): 174–183.
- Zhu, Y. Z., Liu, J. W., Wang, X., Jeong, I. H., Ahn, Y. J., dan Zhang, C. J. 2018. Anti-BACE1 and Antimicrobial Activities of Steroidal Compounds Isolated from Marine *Urechis unicinctus*. *Marine Drugs*, **16**(94): 1–12.
- Zhu, M., Zhu, Q., Yang, Z., dan Liang, Z. 2021. Clinical Characteristics of Patients with *Micrococcus luteus* Bloodstream Infection in a Chinese Tertiary-Care Hospital. *Polish Journal of Microbiology*, **70**(3): 321–326.
- Zuccarello, G. C. dan Paul, N. A. 2019. A Beginner's Guide to Molecular Identification of Seaweed. *Squalen Bulletin of Marine and Fisheries Postharvest and Biotechnology*, **14**(1): 43–53.