DAFTAR PUSTAKA

Aba, B. L. & N. M. Almosa. 2015. Characterization, antimicrobial and anti-fungal activity of endophytic fungi associated with *Gelidiella acerosa* (Forsskal) Feldmann and G. Hamel (1934) from the Intertidal Area of Silago, Southern Leyte, Philippines. Journal of Society & Technology. 5: 162-172.

Azmat, M. A., I. A. Khan, H. M. N. Cheema, I. A. Rajwana, A. S. Khan, & A. A. Khan. 2012. Extraction of DNA suitable for PCR applications from mature leaves of *Mangifera indica* L. Journal of Zhejiang University Science B. 13(4): 239-243.

Banin, E., D. Hughes, & O. P. Kuipers. 2017. Bacterial pathogens, antibiotics and antibiotic resistance. FEMS Microbiology Reviews. 41(3): 450-452.

Bansemir, A., M. Blume, S. Schröder, & U. Lindequist. 2006. Screening of cultivated seaweeds for antibacterial activity against fish pathogenic bacteria. Aquaculture. 252(1): 79-84.

Bawakid, N. O., W. M. Alarif, N. A Alburae, H. S. Alorfi, K. O. Al-Footy, S. S. Al-Lihaibi, & M. A. Ghandourah. 2017. Isolaurenidificin and bromlaurenidificin, two new C15-acetogenins from the red alga *Laurencia obtusa*. Molecules, 22(5): 807.

Bbosa, G. S., N. Mwebaza, J. Odda, D. B. Kyegombe, & M. Ntale. 2014. Antibiotics or antibacterial drug use, their marketing and promotion during the post-antibiotic golden age and their role in emergence of bacterial resistance. Health article of Creative Commons Attribution License. 6 : 410-425.

Bedoux, G., K. Hardouin, A. S. Burlot, & N. Bourgougnon. 2014. Bioactive components from seaweeds: cosmetic applications and future development. Advances in Botanical Research. 71: 345-378.

Begum, S. F. M., K. Chitra, B. Joseph, R. Sundararajan, & S. Hemalatha. 2018. *Gelidiella acerosa* inhibits lung cancer proliferation. BMC Complementary and Alternative Medicine. 18(104).

Bouchet, P., 2006. The Magnitude of Marine Biodiversity. The Exploration of Marine Biodiversity: Scientific and Technological Challenges, 31-62.

Castro, P., & M. Huber. 2013. Marine Biology: Multicultural Primary Producers Seaweeds and Plants. McGraw-Hill, New York.

Cavallo, R. A., M. I. Acquaviva, L. Stabili, E. Cecere, A. Petrocelli, & M. Narracci. 2013. Antibacterial activity of marine macroalgae against fish pathogenic Vibrio species. Central European Journal of Biology. 8(7): 646-653.

Chagas, F. D., G. C. Lima, V. I. N. Dos Santos, L. E. C. Costa, W. M. de Sousa, V. G. Sombra, ... & A. L. P. Freitas. 2020. Sulfated polysaccharide from the red algae *Gelidiella acerosa*: Anticoagulant, antiplatelet and antithrombotic effects. International Journal of Biological Macromolecules. 159: 415-421.

Choma, I. M., & E. M. Grzelak. 2011. Bioautography detection in thin-layer chromatography. Journal of Chromatography A. 1218(19): 2684-2691.

Cianciola, E.N., T. R. Popolizio, C. W. Schneider, & C. E. Lane. 2010. Using molecular-assisted alpha taxonomy to better understand red algal biodiversity in Bermuda. Diversity, 2(6): 946-958.

Cikos, A. M., I. Flanjak, K. Bojanić, S. Babić, L. Čižmek, R. Čož-Rakovac,... & I. Jerković. 2021. Bioprospecting of coralline red alga *Amphiroa rigida* JV Lamouroux: Volatiles, fatty acids and pigments. Molecules. 26(3): 520.

Dash, P., S. Avunje, R. S. Tandel, & A. Panigrahi. 2017. Biocontrol of luminous vibriosis in shrimp aquaculture: A review of current approaches and future perspectives. Reviews in Fisheries Science & Aquaculture. 25(3): 245-255.

Dashtiannasab, A., & V. Yeganeh. 2017. The effect of ethanol extract of a macroalgae *Laurencia snyderia* on growth parameters and vibriosis resistance in shrimp *Litopenaeus vannamei*. Iranian Journal of Fisheries Sciences. 16(1): 210-221.

De Alencar, D. B., F. C. T. de Carvalho, R. H. Rebouças, D. R. Dos Santos, K. M. dos Santos Pires-Cavalcante, R. L. de Lima,... & S. Saker-Sampaio. 2016. Bioactive extracts of red seaweeds *Pterocladiella capillacea* and *Osmundaria obtusiloba* (Floridophyceae: Rhodophyta) with antioxidant and bacterial agglutination potential. Asian Pacific Journal of Tropical Medicine. 9(4): 372-379.

De Almeida, C. L. F., D. S. Falcão, D. M. Lima, R. Gedson, D. A. Montenegro, N. S. Lira,... & L. M. Batista. 2011. Bioactivities from marine algae of the genus Gracilaria. International Journal of Molecular Sciences. 12(7): 4550-4573.

De Schryver, P., T. Defoirdt, & P. Sorgeloos. 2014. Early mortality syndrome outbreaks: A microbial management issue in shrimp farming. PLoS Pathogens. 10(4).

De Smedt, G., O. De Clerck, F. Leliaert, E. Coppejans, & L. M. Liao. 2001. Morphology and systematics of the genus Halymenia C. Agardh (Halymeniales, Rhodophyta) in the Philippines. Nova Hedwigia, 73(3-4): 293-322.

Devi, J. S., B. V. Bhimba, & K. Ratnam. 2012. In vitro anticancer activity of silver nanoparticles synthesized using the extract of *Gelidiella* sp. Int J Pharm Pharm Sci. 4(4): 710-715.

Dolan, S. 2001. The use of medullary unit patterns of intergenicula and genicula in the taxonomy of Amphiroa (Corallinaceae, Rhodophyta). European Journal of Phycology. 36(4): 397-407.

El Gamal, A. A. 2010. Biological importance of marine algae. Saudi Pharmaceutical Journal. 18(1): 1-25.

El-Ashram, S., I. Al Nasr, & X. Suo. 2016. Nucleic acid protocols: Extraction and optimization. Biotechnology Reports. 12: 33-39.

Elsie, B. H., & M. S. DhanaRajan. 2010. Evaluation of antimicrobial activity and phytochemical screening of *Gelidium acerosa*. Journal of Pharmaceutical Sciences and Research. 2(11): 704-707.

Elsie, B. H., M. S. Dhanarajan, & P. N. Sudha. 2011. Invitro screening of secondary metabolites and antimicrobial activities of ethanol and acetone extracts from red seaweed *Gelidium acerosa*. International Journal of Chemistry Research. 27-29.

Esselin, H., S. Sutour, J. Liberal, M. T. Cruz, L. Salgueiro, B. Siegler,... & F. Tomi. 2017. Chemical composition of *Laurencia obtusa* extract and isolation of a new C15-acetogenin. Molecules. 22(5): 779.

Farr, T. J., J. Broom, D. Hart, K. Neil, & W. Nelson. 2009. Common coralline algae of northern New Zealand: An identification guide. NIWA Information Series No. 70.

Ferri, G., M. Alu, B. Corradini, M. Licata, & G. Beduschi. 2009. Species identification through DNA "barcodes". Genetic Testing and Molecular Biomarkers, 13(3): 421-426.

Franchini, A. C., G. A. Costa, S. A. Pereira, W. C. Valenti, & P. Moraes-Valenti. 2020. Improving production and diet assimilation in fish-prawn integrated aquaculture, using iliophagus species. Aquaculture. 521.

Gibbons, S. 2006. An Introduction to Planar Chromatography. In Natural Products Isolation. Humana Press. Totowa, New Jersey. 77-116.

Gil-Rodríguez, M. A. C., A. Sentíes, J. Díaz-Larrea, V. Cassano, & M. T. Fujii. 2009. *Laurencia Marilzae* sp. (Ceramiales, Rhodophyta) from The Canary Islands, Spain, based on morphological and molecular evidence . Journal of Phycology. 45(1): 264-271.

González, A. C. M., L. E. Mateo-Cid, D. Y. G. López, & J. A. Acosta-Calderón. 2014. Diversity and distribution of articulated coralline algae

(Rhodophyta, Corallinales) of the Atlantic coast of Mexico. Phytotaxa. 190(1): 45-63.

Gopu, M., & K. Selvam. 2020. Polysaccharides from marine red algae *Amphiroa rigida* and their biomedical potential: An in-vitro study. Biocatalysis and Agricultural Biotechnology. 29.

Gopu, M., P. Kumar, T. Selvankumar, B. Senthilkumar, C. Sudhakar, M. Govarthanan,... & K. Selvam. 2021. Green biomimetic silver nanoparticles utilizing the red algae *Amphiroa rigida* and its potent antibacterial, cytotoxicity and larvicidal efficiency. Bioprocess and Biosystems Engineering. 44(2): 217-223.

Greco, M., C. A. Sáez, M. T. Brown, & M. B. Bitonti. 2014. A simple and effective method for high quality co-extraction of genomic DNA and total RNA from low biomass *Ectocarpus siliculosus*, the model brown alga. PloS one. 9(5)

Guiry, M.D. & G. M. Guiry. 2021. AlgaeBase. World-wide electronic publication, National University of Ireland, Galway. http://www.algaebase.org; searched on 13 Februari 2021.

Guiry, M.D. & G.M. Guiry. 2010. Algaebase. National University of Ireland, Galway. http://www.algaebase.org; searched on 6 Juli 2021

Harvey, A.S., W. J. Woelkerling, & A. J. Millar. 2009. The genus Amphiroa (Lithophylloideae, Corallinaceae, Rhodophyta) from the temperate coasts of the Australian continent, including the newly described *A. klochkovana*. Phycologia, 48(4): 258-290.

Hebert, P. D., A. Cywinska, S. L. Ball, & J. R. DeWaard. 2003. Biological identifications through DNA barcodes. Proceedings of the Royal Society of London. Series B: Biological Sciences. 270(1512): 313-321.

Huisman, J. M., G. H. Boo, and S. M. Boo. 2018. "Gelidiales," in algae of Australia: marine benthic algae of North-Western Australia. Red Algae ed. 245–264.

Inoue, Y., T. Hada, A. Shiraishi, K. Hirose, H. Hamashima, & S. Kobayashi. 2005. Biphasic effects of geranylgeraniol, teprenone, and phytol on the growth of *Staphylococcus aureus*. Antimicrobial Agents and Chemotherapy. 49(5): 1770-1774.

Jena, R. C., K. C. Samal, & B. K. Das. 2010. Opimization of DNA isolation and PCR protocol for RAPD analysis of *Mangifera indica*. Journal of Agricultural Technology. 6(3): 559-571.

Jesus, A., M. Correia-da-Silva, C. Afonso, M. Pinto, & H. Cidade. 2019. Isolation and potential biological applications of haloaryl secondary metabolites from macroalgae. Marine Drugs. 17(2): 73.

Ji, N. Y., X. M. Li, C. M. Cui, & B. G. Wang. 2007. Terpenes and polybromoindoles from the marine red alga *Laurencia decumbens* (Rhodomelaceae). Helvetica Chimica Acta. 90(9): 1731-1736.

Kamada, T., & C. S. Vairappan. 2012. A new bromoallene-producing chemical type of the red alga *Laurencia nangii* Masuda. Molecules. 17(2): 2119-2125.

Kamada, T., & C. S. Vairappan. 2013. New bioactive secondary metabolites from Bornean red alga, *Laurencia similis* (Ceramiales). Natural Product Communications. 8(3).

Kamada, T., C. S. Phan, & C. S. Vairappan. 2019. New anti-bacterial halogenated tricyclic sesquiterpenes from Bornean *Laurencia majuscula* (Harvey) Lucas. Natural Product Research. 33(4): 464-471.

Karthick, M., M. Balachandar, M. Raja, & R. A. Raj. 2019. Antibacterial activity of red alga *Amphiroa anceps* (Rhodophyceae: Lithophyllaceae) against selected human pathogens. International Science Journal. 10(2): 15-19.

Karthick, P., R. Mohanraju, K. N. Murthy, C. H. Ramesh, C. Mohandass, R. Rajasabapathy, & K. S. Vellai. 2015. Antimicrobial activity of *Serratia* sp isolated from the coralline red algae *Amphiroa anceps*. Indian J Geo-Mar Sci. 44(12): 1857-1866.

Kasanah, N., W. Amelia, A. Mukminin, Triyanto, & A. Isnansetyo. 2019. Antibacterial activity of Indonesian red algae *Gracilaria edulis* against bacterial fish pathogens and characterization of active fractions. Natural Product Research, 33(22): 3303-3307.

Kasanah, N., Setyadi, dan T. Ismi. 2017. Rumput Laut Indonesia: Keanekaragaman Rumput laut di Gunung Kidul Yogyakarta. UGM Press, Yogyakarta.

Kawaguchi, S., S. Shimada, T. Abe, and R. Terada. 2006. Morphological and molecular phylogenetic studies of a red alga, *Halymenia durvillei*, (Halymeniaceae, Halymeniales) from Indo-Pacific. Coastal Marine Sciences, 30: 201-208.

Kawsar, S.M., Y. Fujii, R. Matsumoto, H. Yasumitsu, & Y. Ozeki. 2011. Protein R-phycoerythrin from marine red alga *Amphiroa anceps*: extraction, purification and characterization. Phytologia Balcanica, 17(3): 347-354.

Kementerian Kelautan dan Perikanan Republik Indonesia. 2020. Genjot Nilai Ekspor, KKP Targetkan Produksi 10,99 Juta Ton Rumput Laut di 2020. https://kkp.go.id/artikel/16505-genjot-nilai-ekspor-kkp-targetkan-produksi-10-99-juta-ton-rumput-laut-di-2020. Diakses pada tanggal 20 November 2020.

Kordi, K. M., H. Ghufran. 2011. Marikultur – Prinsip dan Praktik Budidaya Laut. Lily Publisher. Yogyakarta.

Krishnan, K., A. Mani, & S. Jasmine. 2014. Cytotoxic activity of bioactive compound 1, 2-benzene dicarboxylic acid, mono 2-ethylhexyl ester extracted from a marine derived *Streptomyces* sp. VITSJK8. International Journal of Molecular and Cellular Medicine. 3(4): 246-254.

Kyaw, S. P. P., & U. Soe-Htun. 2019. Morphology and distribution of *Laurencia* sp. (Ceramiales, Rhodophyta) from Myanmar. J Aquac Mar Biol. 8(6): 190-196.

Le Gall, L., & G. W. Saunders. 2010. DNA barcoding is a powerful tool to uncover algal diversity: A case study of the Phyllophoraceae (Gigartinales, Rhodophyta) in the Canadian flora. Journal of Phycology. 46(2): 374-389.

Lee, A.C., L. M. Liao, & K. S. Tan. 2009. New records of marine algae on artificial structures and intertidal flats in coastal waters of Singapore. Raffles Bulletin of Zoology, 22(1): 5-40.

Letchumanan, V., P. Pusparajah, L. T. H. Tan, W. F. Yin, L. H. Lee, & K. G. Chan. 2015. Occurrence and antibiotic resistance of *Vibrio parahaemolyticus* from shellfish in Selangor, Malaysia. Frontiers in Microbiology. 6: 1417-1424.

Lin, S.M. & D. W. Freshwater. 2008. The red algal genus Gelidiella (Gelidiales, Rhodophyta) from Taiwan, including *Gelidiella fanii* sp. Phycologia, 47(2): 168-176.

Liu, L., M. Ge, X. Zheng, Z. Tao, S. Zhou, & G. Wang. 2016. Investigation of *Vibrio alginolyticus, V. harveyi*, and *V. parahaemolyticus* in large yellow croaker, *Pseudosciaena crocea* (Richardson) reared in Xiangshan Bay, China. Aquaculture Reports. 3: 220-224.

Lubobi, S. F., C. Matunda, V. Kumar, B. Omboki. 2016 Isolation of bioactive secondary metabolites from seaweeds *Amphiroa anceps* against chicken meat associated pathogens. J Antimicro 2(1): 1-5.

Machado, F. L., T. L. B. Ventura, L. M. D. S. Gestinari, V. Cassano, J. A. L. C. Resende, C. R. Kaiser,... & A. R. Soares. 2014. Sesquiterpenes from the Brazilian red alga *Laurencia dendroidea* J. Agardh. Molecules. 19(3): 3181-3192.

Madigan, M. T., M. John, S. David, & C. David. 2012. Brock biology of microorganism 13th ed. Pearsons Benjamin Cumming. US. 1061.

Maeda, T., T. Kawai, M. Nakaoka, & N. Yotsukura. 2013. Effective DNA extraction method for fragment analysis using capillary sequencer of the kelp, Saccharina. Journal of Applied Phycology. 25(1): 337-347.

Manilal, A., J. Selvin, & S. George. 2012. In vivo therapeutic potentiality of red seaweed, Asparagopsis (Bonnemaisoniales, Rhodophyta) in the treatment of Vibriosis in *Penaeus monodon* Fabricius. Saudi Journal of Biological Sciences. 19(2): 165-175.

Manilal, A., S. Sujith, G. S. Kiran, J. Selvin, C. Shakir, R. Gandhimathi, & A. P. Lipton. 2009. Antimicrobial potential and seasonality of red algae collected from the southwest coast of India tested against shrimp, human and phytopathogens. Annals of Microbiology. 59(2): 207-219.

Marimuthu, A. J., & E. D. Sankara Raj. 2016. UV–VIS and HPLC studies on *Amphiroa anceps* (Lamarck) Decaisne. Arab. J. Chem 9: 907-913.

Marston, A. 2011. Thin-layer chromatography with biological detection in phytochemistry. Journal of Chromatography A. 1218(19): 2676-2683.

Maschek, J. A., & B. J. Baker. 2008. The chemistry of algal secondary metabolism. in algal chemical ecology. Springer, Berlin, Heidelberg. 1-24.

Miccoli, A., P. R. Saraceni, & G. Scapigliati. 2019. Vaccines and immune protection of principal Mediterranean marine fish species. Fish & Shellfish Immunology. 94: 800-809.

Mickymaray, S., & W. Alturaiki. 2018. Antifungal efficacy of marine macroalgae against fungal isolates from bronchial asthmatic cases. Molecules. 23(11): 3032.

Mohanty, S., S. Mishra, P. Jena, B. Jacob, B. Sarkar, & A. Sonawane. 2012. An investigation on the antibacterial, cytotoxic, and antibiofilm efficacy of starch-stabilized silver nanoparticles. Nanomedicine : Nanotechnology, Biology and Medicine. 8(6): 916-924.

Oberbeckmann, S., B. M. Fuchs, M. Meiners, A. Wichels, K. H. Wiltshire, & G. Gerdts. 2012. Seasonal dynamics and modeling of a Vibrio community in coastal waters of the North Sea. Microbial Ecology. 63(3): 543-551.

Oliveira, L. S., D. A. Tschoeke, A. C. R. Magalhães Lopes, D. B. Sudatti, P. M. Meirelles, C. C. Thompson,... & F. L. Thompson. 2017. Molecular mechanisms for microbe recognition and defense by the red seaweed *Laurencia dendroidea*. Microbiology. 2(6).

Pemberton, T. A., M. Chen, G. G. Harris, W. K. Chou, L. Duan, M. Köksal,... & D. W. Christianson. 2017. Exploring the influence of domain architecture on the catalytic function of diterpene synthases. Biochemistry. 56(14): 2010-2023.

Perrone, C., G. P. Felicini, & A. Bottalico. 2006. The prostrate system of the Gelidiales: diagnostic and taxonomic importance. Botanica Marina. 49: 23-33.

Phillips, N., C. M. Smith, & C. W. Morden. 2001. An effective DNA extraction protocol for red algae. Phycological Research. 49(2): 97-102.

Prabhakar, V., R. Anandan, T. P. Aneesh, J. NB, S. V. Nair, & O. A. Halima. 2011. Fatty acid composition of *Sargassum wightii* and *Amphiroa anceps* collected from the Mandapam coast Tamil Nadu, India. J. Chem. 3(1): 210-216.

Prasad, K., A. M. Goswami, R. Meena, B. K. Ramavat, P. K. Ghosh, & A. K. Siddhanta. 2006. Superior quality agar from red alga *Gelidiella acerosa* (Rhodophyta, Gelidiales) from Gujarat coast of India: An evaluation. Indian J Mar Sci. 35: 68–74.

Raja, R. A., R. Sridhar, C. Balachandran, A. Palanisammi, S. Ramesh, & K. Nagarajan. 2017. Pathogenicity profile of *Vibrio parahaemolyticus* in farmed Pacific white shrimp, *Penaeus vannamei*. Fish & Shellfish Immunology. 67: 368-381.

Rajagopal, S. V., T. M. Radhakrishnan, & B. V. Raman. 2006. Studies on biochemical and antibacterial activities of red algae of Visakhapatnam seacoast. Asian Journal of Microbiology Biotechnology and Environmental Sciences. 8(1): 115-118.

Rajasulochana, P., R. Dhamotharan, P. Krishnamoorthy, & S. Murugesan. 2009. Antibacterial activity of the extracts of marine red and brown algae. J. Am. Sci, 5(3): 20-25.

Ramalingam, N., C. Rose, C. Krishnan, & S. Sankar. 2018. Green synthesis of silver nanoparticles using red marine algae and evaluation of its antibacterial activity. Journal of Pharmaceutical Sciences and Research. 10(10): 2435-2438.

Ransangan, J., T. M. Lal, & A. H. Al-Harbi. 2012. Characterization and experimental infection of *Vibrio harveyi* isolated from diseased Asian seabass (*Lates calcarifer*). Malaysian Journal of Microbiology. 8(2): 104-115.

Rico, J.M., D. W. Freshwater, K. G. Norwood, & M. D. Guiry. 2002. Morphology and systematics of *Gelidiella tenuissima* (Gelidiales, Rhodophyta) from Gran Canaria (Canary Islands, Spain). Phycologia, 41(5): 463-469.

Roleda, M. Y., & C. L. Hurd. 2019. Seaweed nutrient physiology: application of concepts to aquaculture and bioremediation. Phycologia. 58(5): 552-562.

Santhakumari, S., A. Kannappan, S. K. Pandian, N. Thajuddin, R. B. Rajendran, & A. V. Ravi. 2016. Inhibitory effect of marine cyanobacterial extract on biofilm formation and virulence factor production of bacterial pathogens causing vibriosis in aquaculture. Journal of Applied Phycology. 28(1): 313-324.

Sarker, S. D., L. Nahar, & Y. Kumarasamy. 2007. Microtitre plate-based antibacterial assay incorporating resazurin as an indicator of cell growth, and its application in the in vitro antibacterial screening of phytochemicals. Methods. 42(4): 321-324.

Satish, L., R. Rameshkumar, P. Rathinapriya, S. Pandian, A. S. Rency, T. Sunitha, & M. Ramesh. 2015. Effect of seaweed liquid extracts and plant growth regulators on in vitro mass propagation of brinjal (*Solanum melongena* L.) through hypocotyl and leaf disc explants. Journal of Applied Phycology. 27(2): 993-1002.

Satish, L., S. Santhakumari, S. Gowrishankar, S. K. Pandian, A. V. Ravi, & M. Ramesh. 2017. Rapid biosynthesized AgNPs from *Gelidiella acerosa* aqueous extract mitigates quorum sensing mediated biofilm formation of Vibrio species—an in vitro and in vivo approach. Environmental Science and Pollution Research. 24(35): 27254-27268.

Saunders, G. W. 2005. Applying DNA barcoding to red macroalgae: a preliminary appraisal holds promise for future applications. Philosophical transactions of the Royal Society B: Biological Sciences. 360(1462): 1879-1888.

Sawabe, T., Y. Ogura, Y. Matsumura, F. Gao, A. K. M. Amin, S. Mino,... & T. Hayashi. 2013. Updating the Vibrio clades defined by multilocus sequence phylogeny: proposal of eight new clades, and the description of *Vibrio tritonius* sp. nov. Frontiers in Microbiology. 4: 414.

Seidel, V. 2006. Initial and Bulk Extraction. In Natural Products Isolation. Humana press. Totowa, New Jersey. 27-46.

Shannon, E., & N. Abu-Ghannam. 2016. Antibacterial derivatives of marine algae: An overview of pharmacological mechanisms and applications. Marine Drugs. 14(4): 81.

Shiney, E., M. Reginald, & J. I. Wilsy. 2014. Antibacterial activity and phytochemical screening of marine macro algae *Amphiroa anceps* using three solvent extracts. Int J Pharmacognosy. 1(9): 605-608.

Sneddon, J., S. Masuram, & J. C. Richert. 2007. Gas chromatography-mass spectrometry-basic principles, instrumentation and selected applications for detection of organic compounds. Analytical Letters. 40(6): 1003-1012.

Spangenberg, B., C. F. Poole, & C. Weins. 2010. Specific staining reactions. in quantitative Thin-Layer Chromatography. Springer, Berlin, Heidelberg. 155-200

Spízek, J., J. Novotná, T. Řezanka, & A. L. Demain. 2010. Do we need new antibiotics? The search for new targets and new compounds. Journal of Industrial Microbiology and Biotechnology. 37(12): 1241-1248.

Stabili, L., M. I. Acquaviva, F. Biandolino, R. A. Cavallo, S. A. De Pascali, F. P. Fanizzi,... & A. Petrocelli. 2014. Biotechnological potential of the seaweed *Cladophora rupestris* (Chlorophyta, Cladophorales) lipidic extract. New Biotechnology. 31(5): 436-444.

Stephani, W., G. W. Santosa, & S. Sunaryo. 2014. Distribusi makroalgae di wilayah intertidal Pantai Gunung Kidul, Yogyakarta. Journal of Marine Research. 3(4): 633-641.

Stirk, W. A., D. L. Reinecke, & J. van Staden. 2007. Seasonal variation in antifungal, antibacterial and acetylcholinesterase activity in seven South African seaweeds. Journal of Applied Phycology. 19(3): 271-276.

Su, H., D. Y. Shi, J. Li, S. J. Guo, L. L. Li, Z. H. Yuan, & X. B. Zhu. 2009. Sesquiterpenes from *Laurencia similis*. Molecules. 14(5): 1889-1897.

Suzuki, M., & C. S. Vairappan. 2005. Halogenated secondary metabolites from Japanese species of the red algal genus Laurencia (Rhodomelaceae, Ceramiales). Current Topics in Phytochemistry. 7: 1-34.

Syad, A. N., B. S. Rajamohamed, K. P. Shunmugaiah, & P. D. Kasi. 2016. Neuroprotective effect of the marine macroalga *Gelidiella acerosa*: identification of active compounds through bioactivity-guided fractionation. Pharmaceutical Biology. 54(10): 2073-2081.

Tan, P. L., P. E. Lim, S. M. Lin, S. M. Phang, S. G., Draisma, & L. M. Liao. 2015. Foliose Halymenia species (Halymeniaceae, Rhodophyta) from Southeast Asia, including a new species, *Halymenia malaysiana* sp. Botanica Marina, 58(3): 203-217.

Teng, T., L. Liang, K. Chen, B. Xi, J. Xie, & P. Xu. 2017. Isolation, identification and phenotypic and molecular characterization of pathogenic *Vibrio vulnificus* isolated from *Litopenaeus vannamei*. PLoS One. 12(10).

Thiruchelvi, R., P. Jayashree, & K. Mirunaalini. 2021. Synthesis of silver nanoparticle using marine red seaweed *Gelidiella acerosa*-A complete study on its biological activity and its characterisation. Materials Today: Proceedings. 37. 1693-1698.

Tiwari, B. K., & D. J. Troy. 2015. Seaweed Sustainability–Food and Nonfood Applications. In Seaweed Sustainability. Academic Press. London. 141–192.

Trigui, M., L. Gasmi, I. Zouari, & S. Tounsi. 2013. Seasonal variation in phenolic composition, antibacterial and antioxidant activities of *Ulva rigida* (Chlorophyta) and assessment of antiacetylcholinesterase potential. Journal of Applied Phycology. 25(1): 319-328.

Trinh, S. A., H. E. Gavin, & K. J. Satchell. 2017. Efficacy of ceftriaxone, cefepime, doxycycline, ciprofloxacin, and combination therapy for *Vibrio*

vulnificus foodborne septicemia. Antimicrobial Agents and Chemotherapy. 61(12).

Trombetta, D., F. M. G. Castelli, V. Sarpietro, M. Venuti, C. Cristani, A. Daniele, G. Saija, G. Mazzanti, & G. Bisignano. 2005. Mechanisms of antibacterial action of three monoterpenes. Antimicrobial Agents And Chemotherapy. 49: 2474–2478.

Vairappan, C. S., T. Ishii, T. K. Lee, M. Suzuki, & Z. Zhaoqi. 2010. Antibacterial activities of a new brominated diterpene from Borneon *Laurencia* spp. Marine Drugs. 8(6): 1743-1749.

Vairappan, C. S., M. Suzuki, T. Ishii, T. Okino, T. Abe, & M. Masuda. 2008. Antibacterial activity of halogenated sesquiterpenes from Malaysian *Laurencia* spp. Phytochemistry. 69(13): 2490-2494.

Vivek, M., P.S. Kumar, S. Steffi, & S. Sudha. 2011. Biogenic silver nanoparticles by *Gelidiella acerosa* extract and their antifungal effects. Avicenna Journal of Medical Biotechnology. 3(3): 143-148.

Wai, M. K. 2018. Morphotaxonomy, culture studies and phytogeographical distribution of *Amphiroa fragilissima* (Linnaeus) Lamouroux (Corallinales, Rhodophyta) from Myanmar. J Aquac. 7(3): 142-150.

Wijnana, A., Adhika, P., & N. Kasanah. 2018. Bioactivity of red seaweed *Gracilaria arcuata* against *Aeromonas hydrophila* and *Vibrio* sp. The Natural Products Journal. 8(2): 147-152.

Wiriyadamrikul, J., J. K. Park, K. Lewmanomont, & S. M. Boo. 2010. Additional records of *Gelidiella fanii* (Gelidiales, Rhodophyta) from the western Pacific based on morphology, rbc L and cox 1 analyses. Botanica Marina, 53(4).

Woelkerling, W.J., G. Sartoni, & S. Boddi. 2002. *Paulsilvella huveorum* gen. & sp. nov. (Corallinaceae, Rhodophyta) from the Holocene of Somalia and Kenya, with a reassessment of *Lithothrix antiqua* from the Late Pleistocene of Mauritius. Phycologia, 41(4): 358-373.

Woelkerling, W. J., & A. Harvey. 2012. Lectotypification and epitypification of the type species of Amphiroa, *A. tribulus* (Lithophylloideae, Corallinaceae, Rhodophyta). Phycologia. 51(1): 113-117.

Zengin, H & A. H. Baysal. 2014. Antibacterial and antioxidant activity of essential oil terpenes against pathogenic and spoilage-forming bacteria and cell structure-activity relationships evaluated by SEM microscopy. Molecules. 19: 17773-17798.

Zubia, M., M. S. Fabre, V. Kerjean, K. Le Lann, V. Stiger-Pouvreau, M. Fauchon, M., & E. Deslandes. 2009. Antioxidant and antitumoural activities of some Phaeophyta from Brittany coasts. Food Chemistry. 116(3): 693-701.

Zuccarello, G. C., G. Burger, J. A. West, & R. J. King. 1999. A mitochondrial marker for red algal intraspecific relationships. Molecular Ecology. 8(9): 1443-1447.

Zuccarello, G.C., A. T. Critchley, J. Smith, V. Sieber, G. B. Lhonneur, & J. A. West. 2006. Systematics and genetic variation in commercial shape Kappaphycus and shape Eucheuma (Solieriaceae, Rhodophyta). Journal of Applied Pycology, 18(3): 643-651.