

DAFTAR PUSTAKA

- Adharini, R. I., namastra, P., & Toni, B. S. 2021. Kelimpahan dan Struktur Komunitas di Sungai Pasir dari Kabupaten Kulon Progo (Yogyakarta) hingga Purworejo (Jawa Tengah). *Limnotek*. 28(2).
- Aermadepa. 2021. Pengaturan Pemanfaatan Danau Singkarak Untuk Budidaya Keramba Jala Apung (KJA) dan Hak Konstitusional Masyarakat di Kawasan Danau. Vol. 2 No. 2. 60-67.
- Afrizal, S., R. Usman., & Astriyenti. 2001. Komposisi dan Struktur Komunitas serta Produktivitas Primer Plankton pada Kawasan Jala Apung Danau Maninjau. *Laporan Penelitian SPP/DPP Universitas Andalas*. Padang.
- Ahmed T, M. Shahid, F. Azeem, I. Rasul, A. Shah, M. Noman, A. Hameed, N. Manzoor, D.I. Manzoor & S. Muhammad. 2018. Biodegradation of plastics: current scenario and future prospects for environmental safety, *Environ. Sci. Pollut. Res.* 25 1-12.
- Allan, J. D., & Castillo, M. M. 2007. *Stream ecology: Structure and function of running waters* (2nd ed.). Springer.
- Alshehrei, Fatimah. 2017. Biodegradation of synthetic and natural plastic by microorganisms, *J. Appl Environ. Microbiol.* (5) 8-19.
- Andriansyah., Tri.Setyawati, R., & Lovadi, I. 2014. Kualitas Perairan Kanal Sungai Jawi & Sungai Raya Dalam Kota Pontianak Ditinjau dari Struktur Komunitas Mikroalga Perifitik. *Jurnal Protobiont*, 3(1), 61–70.
- Anggraini R R, Y. Risjani & U. Yanuhar . 2020 Plastic Litter as Pollutant in the Aquatic Environment: A mini-review *Jurnal Ilmiah Perikanan dan Kelautan*.12(1) 167-180.
- Arifin S.M , Izmiarti & Chairul. 2015. Komunitas Fitoplankton di Sekitar Sungai Utama Di Zona Litoral Danau Singkarak, Provinsi Sumatera Barat. *Online Jurnal of Natural Science* Vol 4(3) :290-299
- Basmi, J. 1999. *Planktonologi: Plankton Sebagai Bioindikator Kualitas Perairan*. Bogor: IPB.
- Bellinger, E. G., & D.C. Sige. 2010. *Freshwater Algae: Identification and Use as Bioindicators*. Wiley-Blackwell.
- Bhuyar, Prakash. 2018. *Biodegradation of plastic waste by using microalgae and their toxins*, in: Biopolymers & Bioplastics & Polymer Science and Engineering Conferences (Las Vegas, USA).

- Casabianca S., S. Capellacci , M.G. Giacobbe , C. Dell'Aversano , L. Tartaglione ,F. Varriale , R. Narizzano, F. Risso , P. Moretto , A. Dagnino, R. Bertolotto , E. Barbone , N. Ungaro & A. Penna. 2019. Plastic-associated harmful microalgal assemblages in marine environment. *Environmental Pollution*, 244, 617–626.
- Chen, X., X Xiong, X. Jiang, H. Shi & C. Wu. 2019. Sinking of floating plastic debris caused by biofilm development in a freshwater lake. *Chemosphere* 222, 856–864.
- Chinaglia .S., M. Tosin, F. Degli-Innocenti. 2018. Biodegradation rate of biodegradable plastics at molecular level, *Polym. Degrad. Stabil.* 147 : 237-244
- Chiu S, C. Kao , T. Chen, Y. Chang, C. Kuo & C. Lin . 2014. Cultivation of microalgal *chlorella* for biomass and lipid production using wastewater as nutrient resource. *Bioresource Technology*. 184: 179-189.
- Conradie,K.R.; S. Du Plessis & A. Venter. 2008. School of Environmental Sciences and Development: Botany. South Africa. *South African Journal of Botany* 74 (2008) 101–110.
- Dang, H., & Lovell, C. R. 2016. Microbial surface colonization and biofilm development in marine environments. *Microbiology and Molecular Biology Reviews*, 80(1), 91-138.
- Dinas Perikanan. 2013. *Database Potensi Perikanan dan Peternakan Kabupaten Solok*. Pemertintah Kabupaten Solok: Solok.
- Ding, L., R.F. Mao, X. Guo, X. Yang, Q. Zhang & C. Yang. 2019. Microplastics in surface waters and sediments of the Wei River, in the northwest of China. *Sci. Total Environ.* 667, 427–434.
- Dudek, K.L. B.N. Cruz, B. Polidoro, S. Neuer. 2020. Microbial colonization of microplastics in the caribbean sea, *Limnol. Oceanogr. Lett.* 5 .. 5–17,
- Effendi, Hefni. 2003. *Telaah Kualitas Air: Bagi Pengelolaan Sumber Daya dan Lingkungan Perairan*. Penerbit. Kanisius. Yogyakarta.
- Eich A, T. Mildenerberger , C. Laforsch & M. Weber. 2015. Biofilm and Diatom Succession on Polyethylene (PE) and Biodegradable Plastic Bags in Two Marine Habitats: Early Signs of Degradation in the Pelagic and Benthic Zone? *PLoS ONE* 10(9): 0137201.
- Environmental Protection Agency. 2010. *Method 1664, Revision B: n-Hexance Extractable Material (HEM; Oil and Grease) and Silica Gel Treated nHexane Extractable Material (SGT-HEM; Non-Polar Material) by Extraction and Gravimetry*. USA.

- Fadlilah, F R & S. Maya . 2014. Potensi Isolat Bakteri *Bacillus* dalam Mendegradasi Plastik dengan Metode Kolom Winogradsky. *Jurnal Teknik Pomits*. 3(2). 2337-3539.
- Galafassi, S., L. Nizzetto & P. Volta. 2019. Plastic sources: a survey across scientific and grey literature for their inventory and relative contribution to microplastics pollution in natural environments, with an emphasis on surface water. *Sci. Total Environ*. 693.
- Galgani, F., G. Hanke, S. Werner & L. De Vrees. 2013. Marine litter within the European Marine Strategy Framework Directive. *ICES Journal of Marine Science*, 70, pp.1055– 1064.
- Galgani, L., A. Engel, C. Rossi, A. Donati & A. Loiseau. 2018. Polystyrene microplastics increase microbial release of marine Chromophoric Dissolved Organic Matter in microcosm experiments. *Scientific Reports*, 8(1), 1–11.
- Galgani. 2013. Framework Directive. *ICES Journal of Marine Science*, 70, 1055-1064.
- Gemilang, W.A. & G. Kusumah. 2017. Status indeks pencemaran perairan kawasan mangrove berdasarkan penilaian fisika-kimia di pesisir Kecamatan Brebes Jawa Tengah. *Enviro Scientiae*, 13(2), 171-180.
- Gonzales, D., G. Hanke, G. Tweehuysen, B. Bellert, M. Holzhauer, A. Palatinus, P.H. Oosterbaan & L. 2016. *Riverine Litter Monitoring Options and Recommendations : MSFD GES TG Marine Litter Thematic Report*.
- Guzman, A N. Gnutek & H. Janik. 2011. Biodegradable Polymers For Food Packaging – Factors Influencing Their Degradation And Certification Types – A Comprehensive Review. *Chemical Technology*. Vol. 5(1).
- Hale, R. C. 2017. Analytical Challenges Associated with the Determination of Microplastics in the Environment. *Analytical Methods*, 9(9), 1326-1327.
- Hasle, G. R., Syvertsen, E. E., Steidinger, K. A., Tangen, K., Throndsen, J., & Heimdal, B. R. (1997). Identifying marine phytoplankton. In C. R. Tomas (Ed.), *Identifying marine phytoplankton* (pp. 5–385). Academic Press.
- Harmoko., Krisnawati, Y. 2018. Keanekaragaman Mikroalga Divisi Cyanobacteria di &au Aur Kabupaten Musi Rawas. *Jurnal Biodjati* 3 (1).
- Horne, A.J., & Goldman, C.R., 1994. *Limnology. Second Edition*. McGraw-Hill Inc. New York.
- Indrayani E., Kamiso Handoyo Nitimulyo , Suwarno Hadisusanto & Rustadi. 2015. Analisis Kandungan Nitrogen, Fosfor & Karbon Organik Di &au Sentani – Papua. *J. Manusia & Lingkungan*, Vol. 22, No.2, Juli 2015: 217-225

- Istirokhatun T., A. Mustika, Sudarno. 2017. Potensi *Chlorella* Sp. untuk Menyisihkan COD & Nitrat dalam Limbah Cair Tahu. Jurnal Presipitasi : *Media Komunikasi & Pengembangan Teknik Lingkungan*, Vol. 14 No.2
- Jones, B., Green, P., & Thompson, R. 2020. Adaptation of Bacillariophyceae in Polluted Aquatic Ecosystems. *Aquatic Ecology Reports*, 38(2), 145-160.
- Junying ZHU, R. Junfeng & Z. Baoning . 2013. Factors in mass cultivation of microalgae for biodiesel. *Chinese Journal of Catalysis*. 34(1): 80-100.
- K. Nouha, R. S. Kumar, S. Balasubramanian, and R. D. Tyagi 2018 Critical review of EPS production, synthesis and composition for sludge flocculation *J. Environ. Sci. (China)*, vol. 66, pp. 225–245
- Katsanevakis S, G. Verriopoulos, A. Nicolaidou & M. Thessalou-Legaki. 2007. Effect of marine litter on the benthic megafauna of coastal soft bottoms: A manipulative field experiment. *Mar Pollut Bull* : 54: 771–778.
- Kawaroe, M., Prartono, T., Sunuddin, A., Sari, D.W., & Augustine, D. 2010. *Mikroalga Potensi dan Pemanfaatanya untuk Produksi Bio Bahan Bakar*. Bogor: PT Penerbit IPB Press.
- Kettner, M. T., Oberbeckmann, S., Labrenz, M., & Grossart, H. P. 2019. The biogeography of plastic-associated biofilms in marine environments is determined by environmental factors. *Environmental Microbiology*, 21(2), 477-493.
- Kim, J. W., Park, S. Bin, Tran, Q. G., Cho, D. H., Choi, D. Y., Lee, Y. J., & Kim, H. S. 2020. Functional expression of polyethylene terephthalate-degrading enzyme (PETase) in green microalgae. *Microbial Cell Factories*, 19(1), 1–9.
- Kociolek, JP & Spaulding, SA. 2003, 'Symmetrical Naviculoid Diatoms', dalam JD Wehr & RG Sheath (editor), *Freshwater Algae of North America: Ecology and Classification*, Academic Press, San Diego
- Kociolek, JP, Spaulding, SA & Lowe, RL, 2015a, 'Bacillariophyceae', dalam JD Wehr, RG Sheath & JP Kociolek (Editor), *Freshwater Algae of North America: Ecology and Classification*, Second Edition, Academic Press, United States of America
- Kouzuma, A. & Watanabe, K., 2015. Exploring the potential of algae/bacteria interactions. *Curr. Opin. Biotechnol.* 33, 125e129.
- Krebs, C.J., 2009. Ecology : The Experimental Analysis of Distribution and Abundance. 2nd Ed. *Pearson Education*, Inc. New York.

- Kurniawan, A. 2022. Kolonisasi Diatom Pada Substrat Buatan di Sungai Batang Arau, Kota Padang Sebagai Pendukung Diagnosa Korban Tenggelam. *Skripsi*. Universitas Andalas, Padang.
- Larned, S.T. 2010. A prospectus for periphyton: recent and future ecological research. *J. North Am. Benthol. Soc.* 29, 182-206.
- Law, K.L. & R.C. Thompson. 2014, "Microplastics in the seas", *Science*, Vol. 345 6193, pp. 144–145.
- Lee, RE. 2008. *Phycology*, Fourth Edition, Cambridge University Press, Cambridge
- Li, C., Zhao, Y., & Wang, X. 2019. The Role of Cyanobacteria in Plastic Degradation Processes. *Journal of Applied Phycology*, 31(4), 1025-1040.
- Lin, Z., Li, J., Luan, Y., Dai, W. 2020. Application of algae for heavy metal adsorption: a 20-year meta-analysis. *Ecotoxicology and Environmental Safety*, 190: 110089.
- Lowe, RL, 1974, Environmental Requirements and Pollution Tolerance of Freshwater Diatoms, *National Enviromental Research Center Office*, Ohio
- Lu, H., Feng, Y., Wang, J., Wu, Y., Shao, H., Yang, L., 2016. Responses of periphyton morphology, structure, and function to extreme nutrient loading. *Environ. Pollut.* 214, 878-884.
- M. Kaseem, K. Hamad, & F. Deri. 2012. Thermoplastic starch blends : A review of recent works. *Polymer Science - Series A*. Vol 54. 165-176.
- Michael, P. 1984. *Metode Ekologi Untuk Penyelidikan Ladang dan Laboratorium* UI. Press. Jakarta.
- Ministry of Environment and Forestry. 2015 *Gerakan Penyelamatan Danau Singkarak (GERMADAN SINGKARAK)*. ISBN: 978-602-8358-75-0
- Moog, D., Schmitt, J., Senger, J., Zarzycki, J., Rexer, K. H., Linne, U., Erb, T., & Maier, U. G. 2019. Using a marine microalga as a chassis for polyethylene terephthalate (PET) degradation. *Microbial Cell Factories*, 18(1), 1–15
- Musdary, F. A.Lisa, M. Reza, L. Ahmad & N. Widia.1Systematic Review: Efektivitas Ideonella sakaiensis dan Chlamydomonas reinhardtii sebagai Agen Biodegradasi Plastik Berbahan Dasar PET. *Jurnal Biolokus: Jurnal Penelitian Pendidikan Biologi dan Biologi* Vol.4(1)
- Nugroho, S. H. 2019. Karakteristik Umum Diatom dan Aplikasinya pada Bidang Geosains. *Oseana*, 44 (1): 70 - 87
- Nurhayati, N., Mukhtar, A. & Gapur, A. 2014 'Transesterifikasi Crude Palm Oil (CPO) Menggunakan Katalis Heterogen CaO dari Cangkang Kerang

- Darah (Anadara Granosa) Kalsinasi 900oC', *Jurnal ICA (Indonesian ...*, 5(1), pp. 23–29.
- Nybakken, J. W., & Bertness, M. D. 2005. *Marine Biology: An Ecological Approach* (Sixth Edit). Pearson Education.
- Odum, E. P. 1971. *Fundamentals of Ecology* (Third Edit). Canada: W. B. Saunders Company.
- Pescod, M.B. 1973. *Investigation of rational effluent and stream standard for tropical countries*. Bangkok: AIT.
- Pfandl, K., A. Chatzinotas, P. Dyal & J. Boenigk. 2009. SSU rRNA Gene Variation Resolves Population Heterogeneity and Ecophysiological Differentiation within a Morphospecies (Stramenopiles, Chrysophyceae). *Limnology and Oceanography*, 54(1), 171–181.
- Pranayogi, D. 2003. *Studi potensi pigmen klorofil dan karotenoid dari mikroalga jenis Chlophyceae*. Universitas Lampung, Lampung.
- Prayitno Joko. 2016. Pola Pertumbuhan dan Pemanenan Biomassa dalam Fotobioreaktor Mikroalga untuk Penangkapan Karbon. *Jurnal Teknologi Lingkungan*. Vol. 17, No. 1.
- Pujiastuti, P., Ismail, B., & Pranoto, 2013. Kualitas dan Beban Pencemaran Perairan Waduk Gajah Mungkur. *Jurnal Ekosains*, 5(1):59-75.
- Rachman, R. S., Winantris, W., Jurnaliah, L., & Fauzielly, L. (2021). Pemodelan Kondisi Lingkungan Sagpond Sesar Lembang, Berdasarkan Analisis Kandungan Alga, Lembang, Jawa Barat. *Al-Kauniyah: Jurnal Biologi*, 14(2), 223–232.
- Raghavan D. Karakterisasi Plastik Biodegradable. *Polym Plast Technol Eng*. 1995; 34: 41-63.
- Ramanan, R., Kim, B.H., Cho, D.H., Oh, H.M., Kim, H.S., 2016. Algae-bacteria interactions: evolution, ecology and emerging applications. *Biotechnol. Adv.* 34, 14-29.
- Ramli, D. 1989. *Ekologi. Proyek Pengembangan Lembaga Pendidikan Tenaga Kependidikan Direktorat Jendral Pendidikan Tinggi Departemen Pendidikan dan Kebudayaan*. Jakarta
- Reynolds, C. S. 2006. *The ecology of phytoplankton*. Cambridge University Press.
- Richmond, R. H. 1997. Reproduction and recruitment in corals: Critical links in the persistence of reef. in: Birkeland (ed). *Life and death of coral reefs*. New York: Chapman and Hall. 536p.

- Rohaningsih, D., C. Henny, T. Suryono & A. Santoso. 2022. Macroplastic abundance at Lake Singkarak riparian, West Sumatra. *IOP Conference Series: Earth and Environmental Science*, 1062(1).
- Round, F. E., Crawford, R. M., & Mann, D. G. 1990. *The Diatoms: Biology & Morphology of the Genera*. Cambridge University Press.
- Romera-Castillo, C., Pinto, M., Langer, T. M., Álvarez-Salgado, X. A., & Herndl, G. J. 2018. Dissolved organic carbon leaching from plastics stimulates microbial activity in the ocean. *Nature Communications*, 9(1), 1430.
- Rummel, C. D., A. Jahnke, E. Gorokhova, D. Kuhnel & J. Schmitt. 2017. Impacts of Biofilm Formation on the Fate and Potential Effects of Microplastic in the Aquatic Environment. *Environmental Science & Technology Letters*, 4, 258-267.
- Saeni, M.S. 1989. *Kimia Lingkungan*. Pusat Antar Universitas Ilmu Hayat. Institut Pertanian Bogor. Bogor.
- Sarmah, P. & J. Rout. 2018. Efficient biodegradation of low-density polyethylene by cyanobacteria isolated from submerged polyethylene surface in domestic sewage water. *Environ. Sci. Pollut. Res.* 25, 33508–33520.
- Sastrawijaya, A.T., 1991. *Pencemaran Lingkungan*. Rineka Cipta. Jakarta.
- Sawyer, C.N., P.L. McCarty & G. Parkin. 1994. *Chemistry for Environmental Engineering*. McGraw-Hill International Edition. Singapore.
- Schlundt C., J.L. Mark Welch, A.M. Knochel, E.R. Zettler & L.A. Amaral-Zettler. 2020. Spatial structure in the “Plastisphere”: Molecular resources for imaging microscopic communities on plastic marine debris. *Molecular Ecology Resources*, 20(3), 620–634.
- Shah, A. A., Hasan, F., Hameed, A., & Ahmed, S. 2008. Biological degradation of plastics: A comprehensive review. *Biotechnology Advances*, 26(3), 246-265.
- Shimao. M. 2001. Biodegradation of plastics. *Current Opinion Biotechnology*. 12 242-247.
- Shovitri, M, N.D. Kuswytasari & P. Paramita. 2012. Biodegrasi Limbah Organik Pasar dengan Menggunakan Mikroorganisme Alami Tangi Septik. *Jurnal Sains dan Seni ITS Vol.* ISSN: 2301-928X.
- Singh B., & N. Sharma. 2008. Mechanistic implications of plastic degradation. *Polymer Degradation and Stability*, 93: 561–584.
- Smith, A., Brown, T., & Williams, K. 2021. *Microalgae and Plastic Biodegradation in Freshwater Systems*. *Environmental Science Journal*, 45(3), 210-225.

- Soeprbowati, T. R. 2010. Stratigrafi Diatom Danau Rawa Pening : Kajian Paleolimnologi sebagai Landasan Pengelolaan Danau. *Makalah Seminar Nasional Limnologi V*. Bogor : Pusat Penelitian Limnologi – LIPI.
- Sulastri. 2018. *Fitoplankton Danau-Danau di Pulau Jawa: Keanekaragaman dan Perannya sebagai Bioindikator Perairan*. LIPI Press.
- Sumarsono, T. 2011. Efektivitas Jenis dan Konsentrasi Nutrien dalam Bioremediasi Tanah Tercemar Minyak Mentah yang Diaugmentasi Dengan Konsorsium Bakteri. *Skripsi*. Departemen Biologi FSAINTEK Universitas Airlangga, Surabaya
- Susanto, Pudyo. 2000. *Pengantar Ekologi Hewan*. Jakarta. Depdiknas.
- Tosin, M., Degli-Innocenti, F., & Bastioli, C. 2012. Behavior of biodegradable plastics in the environment. In *Handbook of Biodegradable Polymers* (pp. 263–297). Smithers Rapra Technology.
- Tuchman, N. C. 1996. The Role of Heterotrophy in Algae. In *Algal Ecology* (pp. 299–319).
- Umar, N. A. 2002. *Hubungan antara Kelimpahan Fitoplankton dan Zooplankton (Kopeoda) dengan Larva Kepiting di Perairan Teluk Siddo Kabupaten Barru Sulawesi Selatan*. Bogor. IPB.
- Usman, M.S., Kusen, J.D., & Rimper, J.R.T.S.L. 2013. Struktur Komunitas Plankton di Perairan Pulau Bangka Kabupaten Minahasa Utara. *Jurnal Pesisir dan Laut Tropis*, 1(2): 51-57.
- Van Cauwenberghe, L., L. Devriese, F. Galgani, J. Robbens, C.R. Janssen. 2015. Microplastics in sediments: a review of techniques, occurrence and effects. *Mar. Environ. Res.* 111, 5–17.
- Venter, A. A. Jordaan & AJH Pieterse. 2003. *Oscillatoria simplicissima*: A taxonomical study. School of Environmental Sciences and Development: Botany. South Africa. *Journal Water SA* Vol. 29 No.1.
- Vuuren S J V, Jonathan T, Carin V G and Annelise G. 2006. Easy Identification of The Most Common Freshwater Algae (South African: North-West University Noorowes-Universitiet)
- Wetzel, R. G. 2001. *Limnology: Lake and river ecosystems* (3rd ed.). Academic Press.
- Wijaya, N. I., Sari, A. K. A., & Mahmiah. 2022. Pengaruh Konsentrasi Fosfat & Nitrat terhadap Kelimpahan Fitoplankton di Perairan Mangrove Gunung Anyar, Surabaya. *Jurnal Pertanian Terpadu*. 10(1). 2549-7383.

- Wright, R. J., Erni-Cassola, G., Zadjelovic, V., Latva, M., & Christie-Oleza, J. A. 2020. Marine plastic debris: a new surface for microbial colonization. *Environmental Science & Technology*, 54(19), 11657–11672.
- Wu, Y.H., F.W. Wang, X. Xiao, J.Z. Liu, C. Wu, H. Chen, P. Kerr & J. Shurin, 2017. Seasonal changes in phosphorus competition and allelopathy of a benthic microbial assembly facilitate prevention of cyanobacterial blooms. *Environ.Microbiol.* 19, 2483-2494.
- Y. Su et al., 2023 Heterogeneous aggregation between microplastics and microalgae: May provide new insights for microplastics removal *Aquat. Toxicol.*, vol. 261
- Zettler E.R., T.J. Mincer & L.A. Amaral-Zettler. 2013. Life in the “Plastisphere”: Microbial Communities on Plastic Marine Debris. *Environmental Science & Technology*, 47(13), 7137–7146.

