

DAFTAR PUSTAKA

- Andoh, C. N., Attiogbe, F., Bonsu Ackerson, N. O., Antwi, M., & Adu-Boahen, K. (2024). Fourier Transform Infrared Spectroscopy: An analytical technique for microplastic identification and quantification. *Infrared Physics and Technology*, 136(April 2023), 105070. <https://doi.org/10.1016/j.infrared.2023.105070>
- Andrady, A. L. (2011). Microplastics in the marine environment. *Marine Pollution Bulletin*, 62(8), 1596–1605. <https://doi.org/10.1016/j.marpolbul.2011.05.030>
- Arifin, Z., Falahudin, D., Saito, H., Mintarsih, T. H., Hafizt, M., & Suteja, Y. (2023). Indonesian policy and researches toward 70% reduction of marine plastic pollution by 2025. *Marine Policy*, 155(June), 105692. <https://doi.org/10.1016/j.marpol.2023.105692>
- Auta, H. S., Emenike, C. U., & Fauziah, S. H. (2017). Distribution and importance of microplastics in the marine environment: A review of the sources, fate, effects, and potential solutions. *Environment International*, 102, 165–176. <https://doi.org/10.1016/j.envint.2017.02.013>
- Avio, C. G., Gorbi, S., & Regoli, F. (2016). *Plastics and microplastics in the oceans: From emerging pollutants to emerged threat*. <https://doi.org/10.1016/j.marenvres.2016.05.012>
- Barboza, L. G. A., Dick Vethaak, A., Lavorante, B. R. B. O., Lundebye, A. K., & Guilhermino, L. (2018). Marine microplastic debris: An emerging issue for food security, food safety and human health. *Marine Pollution Bulletin*, 133(January), 336–348. <https://doi.org/10.1016/j.marpolbul.2018.05.047>
- Browne, M. A., Niven, S. J., Galloway, T. S., Rowland, S. J., & Thompson, R. C. (2013). Microplastic moves pollutants and additives to worms, reducing functions linked to health and biodiversity. *Current Biology*, 23(23), 2388–2392. <https://doi.org/10.1016/j.cub.2013.10.012>

Capparelli, M. V., Molinero, J., Moulatlet, G. M., Barrado, M., Prado-Alcívar, S., Cabrera, M., Gimiliani, G., Ñacato, C., Pinos-Velez, V., & Cipriani-Avila, I. (2021). Microplastics in rivers and coastal waters of the province of Esmeraldas, Ecuador. *Marine Pollution Bulletin*, 173(October).
<https://doi.org/10.1016/j.marpolbul.2021.113067>

Chairrany, B., Mahmia, & Sa'adah, N. (2021). *Identifikasi Mikroplastik pada Udang Litopenaeus vannamei di Perairan Gunung Anyar Surabaya*. 1(April), 34–40.

Chatterjee, S., & Sharma, S. (2019). Microplastics in Our Oceans and Marine Health. *Field Actions Science Reports The Journal of Field Actions*, 19, 54–61.

Chen, Y., Wen, D., Pei, J., Fei, Y., Ouyang, D., Zhang, H., & Luo, Y. (2020). Identification and quantification of microplastics using Fourier-transform infrared spectroscopy: Current status and future prospects. *Current Opinion in Environmental Science & Health*, 18, 14–19.
<https://doi.org/10.1016/J.COESH.2020.05.004>

Crawford, C. B., & Quinn, B. (2017). Microplastics, standardisation and spatial distribution. *Microplastic Pollutants*, 101–130. <https://doi.org/10.1016/B978-0-12-809406-8.00005-0>

Drabinski, T. L., de Carvalho, D. G., Gaylarde, C. C., Lourenço, M. F. P., Machado, W. T. V., da Fonseca, E. M., da Silva, A. L. C., & Baptista Neto, J. A. (2023). Microplastics in Freshwater River in Rio de Janeiro and Its Role as a Source of Microplastic Pollution in Guanabara Bay, SE Brazil. *Micro*, 3(1), 208–223.
<https://doi.org/10.3390/micro3010015>

Dwiyanti Suryono, D. (2019). Sampah Plastik di Perairan Pesisir dan Laut : Implikasi Kepada Ekosistem Pesisir Dki Jakarta. *Jurnal Riset Jakarta*, 12(1), 17–23.
<https://doi.org/10.37439/jurnaldrd.v12i1.2>

Ecsn Hossain, M. S., Rahman, M. S., Uddin, M. N., Sharifuzzaman, S. M., Chowdhury, S. R., Sarker, S., & Nawaz Chowdhury, M. S. (2019). Microplastic contamination in Penaeid shrimp from the Northern Bay of Bengal. *Chemosphere*.

<https://doi.org/10.1016/j.chemosphere.2019.124688>

- EEA. (1999). *Environmental indicators: Typology and overview*. 50(4), 62–67.
- Fachrul, M. F., Rinanti, A., Agustria, A., & Naswadi, D. A. (2021). Degradasi Mikroplastik Pada Ekosistem Perairan Oleh Bakteri Kultur. *Jurnal Penelitian Dan Karya Ilmiah*, 6, 304–316.
- Fegan, D. . (2003). *Budidaya Udang Vaname (Litopenaeus vannamei)*. Asia Gold Coin Indonesia Specialities.
- Fitria, S. ., Anggraeni, V., Abida, I. ., & Junaedi, A. . (2021). Identifikasi mikroplastik pada gastropoda dan udang di Sungai Brantas. *Environmental Pollution Journal*, 1(2), 159–166. <https://journalecoton.id/index.php/epj>
- Ghosh, S., Sinha, J. K., Ghosh, S., Vashisth, K., Han, S., & Bhaskar, R. (2023). Microplastics as an Emerging Threat to the Global Environment and Human Health. *Sustainability (Switzerland)*, 15(14). <https://doi.org/10.3390/su151410821>
- Hafidz, M. K., & Amin, M. F. (2022). Identifikasi Mikroplastik Pada Udang Putih (*Penaeus indicus*) dan Ikan di Muara Sungai Barito Kota Banjarmasin, Provinsi Kalimantan Selatan. *Environmental Pollution Journal*, 2(2), 390–398. <https://doi.org/10.58954/epj.v2i2.79>
- Haliman, R. W., & Adijaya, D. (2005). *Udang Vaname, Pembudidayaan dan Prospek Pasar Udang Vaname yang Tahan Penyakit*. Penebar Swadaya.
- Hantoro, I., Löhr, A. J., Van Belleghem, F. G. A. J., Widianarko, B., & Ragas, A. M. J. (2019). Microplastics in coastal areas and seafood: implications for food safety. *Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment*, 36(5), 674–711. <https://doi.org/10.1080/19440049.2019.1585581>
- Hohenblum, P., Liebmann, B., Liedermann, M., & Vienna, L. S. (2022). Plastic and Microplastic in the Environment. In *Plastic and Microplastic in the Environment* (Issue October). <https://doi.org/10.1002/9781119800897>

- Hong, L., Meng, X., Bao, T., Liu, B., Wang, Q., Jin, J., & Wu, K. (2023). Spatial–Temporal Distribution and Ecological Risk Assessment of Microplastics in the Shiwuli River. *Water*, 15(13), 2330. <https://doi.org/10.3390/w15132330>
- Karami, A., Golieskardi, A., Keong Choo, C., Larat, V., Galloway, T. S., & Salamatina, B. (2017). The presence of microplastics in commercial salts from different countries. *Scientific Reports*, 7(April), 1–11. <https://doi.org/10.1038/srep46173>
- Katsanevakis, S., & Katsarou, A. (2004). Influences on the distribution of marine debris on the seafloor of shallow coastal areas in Greece (eastern Mediterranean). *Water, Air, and Soil Pollution*, 159(1), 325–337. <https://doi.org/10.1023/B:WATE.0000049183.17150.df>
- Li, J., Liu, H., & Paul Chen, J. (2018). Microplastics in freshwater systems: A review on occurrence, environmental effects, and methods for microplastics detection. *Water Research*, 137, 362–374. <https://doi.org/10.1016/j.watres.2017.12.056>
- Löder, M. G. J., & Gerdt, G. (2015). Methodology used for the detection and identification of microplastics—a critical appraisal. *Marine Anthropogenic Litter*, 201–227. https://doi.org/10.1007/978-3-319-16510-3_8/FIGURES/7
- Lusher, A. L., Tirelli, V., O’Connor, I., & Officer, R. (2015). Microplastics in Arctic polar waters: The first reported values of particles in surface and sub-surface samples. *Scientific Reports*, 5(October), 1–9. <https://doi.org/10.1038/srep14947>
- Mamun, A. Al, Prasetya, T. A. E., Dewi, I. R., & Ahmad, M. (2023). Microplastics in human food chains: Food becoming a threat to health safety. *Science of The Total Environment*, 858, 159834. <https://doi.org/10.1016/J.SCITOTENV.2022.159834>
- Mintenig, S. M., Löder, M. G. J., Primpke, S., & Gerdt, G. (2019). Low numbers of microplastics detected in drinking water from ground water sources. *Science of The Total Environment*, 648, 631–635.

<https://doi.org/10.1016/J.SCITOTENV.2018.08.178>

Mohsen, M., Lin, J., Lu, K., Wang, L., & Zhang, C. (2024). Microplastic pollution in aquafeed of diverse aquaculture animals. *Heliyon*, *10*(17), e37370. <https://doi.org/10.1016/J.HELIYON.2024.E37370>

Mujiarto, I. (2005). Sifat dan Karakteristik Material Plastik Dan Bahan Aditif. *Traksi*, *3*(2), 65–74.

Musa, M., Mahmudi, M., & Lusiana, E. D. (2025). Comparing microplastic contamination in vannamei shrimp aquaculture : the impact of concrete and HDPE pond materials in Probolinggo , East Java , Indonesia. *Aquaculture International*. <https://doi.org/10.1007/s10499-025-02050-4>

Naidu, B. C., Xavier, K. A. M., Sahana, M. D., Landge, A. T., Jaiswar, A. K., Shukla, S. P., Ranjeet, K., & Nayak, B. B. (2025). Temporal variability of microplastics in shrimp (*Litopenaeus vannamei*), feed, water and sediments of coastal and inland culture ponds. *Science of the Total Environment*, *959*(August 2024), 178173. <https://doi.org/10.1016/j.scitotenv.2024.178173>

Najeha, A. S., & Vitrianto, P. N. (2024). Degradasi Lingkungan Kawasan Wisata Pantai Samas dalam Kajian Ekologi Sosial. *Journal of Tourism and Economic*, *7*(1), 23–38. <https://doi.org/10.36594/jtec/8jm7j756>

Napper, I. E., & Thompson, R. C. (2020). Plastic Debris in the Marine Environment: History and Future Challenges. *Global Challenges*, *4*(6). <https://doi.org/10.1002/gch2.201900081>

Nurfitriyani Sulisty, E., Rahmawati, S., Amalia Putri, R., Arya, N., & Amertha Eryan, Y. (2020). Identification of the Existence and Type of Microplastic in Code River Fish, Special Region of Yogyakarta. *EKSAKTA: Journal of Sciences and Data Analysis*, *1*(1), 85–91. <https://doi.org/10.20885/eksakta.vol1.iss1.art13>

Olsson, P., Folke, C., & Berkes, F. (2004). Adaptive comanagement for building resilience in social-ecological systems. *Environmental Management*, *34*(1), 75–90. <https://doi.org/10.1007/S00267-003-0101-7/TABLES/1>

- Patria, M. P., Santoso, C. A., & Tsabita, N. (2020). Microplastic ingestion by periwinkle snail *Littoraria scabra* and mangrove crab *Metopograpsus quadridentata* in Pramuka Island, Jakarta Bay, Indonesia. *Sains Malaysiana*, 49(9), 2151–2158. <https://doi.org/10.17576/jsm-2020-4909-13>
- Prata, J. C., da Costa, J. P., Lopes, I., Andrady, A. L., Duarte, A. C., & Rocha-Santos, T. (2021). A One Health perspective of the impacts of microplastics on animal, human and environmental health. *Science of the Total Environment*, 777. <https://doi.org/10.1016/j.scitotenv.2021.146094>
- Priyambada, G., Kurniawan, B., Sitompul, R. G., & Darmayanti, L. (2023). The abundance of microplastics in Siak tributary sediments in the watershed area, Pekanbaru City, Riau (Case Study Sago River). *Materials Today: Proceedings*, 87, 272–277. <https://doi.org/10.1016/j.matpr.2023.03.207>
- Rochman, C. M., Brookson, C., Bikker, J., Djuric, N., Earn, A., Bucci, K., Athey, S., Huntington, A., McIlwraith, H., Munno, K., Frond, H. De, Kolomijeca, A., Erdle, L., Grbic, J., Bayoumi, M., Borrelle, S. B., Wu, T., Santoro, S., Werbowski, L. M., ... Hung, C. (2019). Rethinking microplastics as a diverse contaminant suite. *Environmental Toxicology and Chemistry*, 38(4), 703–711. <https://doi.org/10.1002/ETC.4371>
- Subakti, E. I., Maulana, I., Junaedi, A. S., & Farid, A. (2022). Pengelolaan Limbah Mikroplastik pada Udang dan Ikan di Segmen Hilir Sungai Brantas. *Cakrawala*, 16(2), 141–153. <https://doi.org/10.32781/cakrawala.v16i2.495>
- Sugiyono. (2007). *Metode Penelitian Pendidikan (Pendekatan Kuantitatif, Kualitatif, dan R&D)*. Alfabeta.
- Tomi. (2021). *Wisata Lesu, Samas Jadi Pusat Budidaya Udang*. <https://www.krjogja.com/bantul/1242499129/wisata-lesu-samas-jadi-pusat-budidaya-udang>
- Tomlinson, D. L., Wilson, J. G., Harris, C. R., & Jeffrey, D. W. (1980). Problems in the assessment of heavy-metal levels in estuaries and the formation of a pollution

index. *Helgoländer Meeresuntersuchungen*, 33(1-4), 566-575.
<https://doi.org/10.1007/BF02414780/METRICS>

UNEP (United Nations Environment Programme). (2021). From pollution to solution: a global assessment of marine litter and plastic pollution. In *New Scientist* (Vol. 237, Issue 3169). <https://www.unep.org/resources/pollution-solution-global-assessment-marine-litter-and-plastic-pollution>

Yona, D., Zahran, M., Fuad, M., Prananto, Y., & Harlyan, L. (2021). *Mikroplastik di Perairan: Jenis Metode Sampling dan Analisis Laboratorium*. UB Press.

Yong, C. Q. Y., Valiyaveetil, S., & Tang, B. L. (2020). Toxicity of microplastics and nanoplastics in Mammalian systems. *International Journal of Environmental Research and Public Health*, 17(5). <https://doi.org/10.3390/ijerph17051509>

Yoon, H., Park, B., Rim, J., & Park, H. (2022). Detection of Microplastics by Various Types of Whiteleg Shrimp (*Litopenaeus vannamei*) in the Korean Sea. *Separations*, 9(11). <https://doi.org/10.3390/separations9110332>

Yuan, Z., Nag, R., & Cummins, E. (2022). Human health concerns regarding microplastics in the aquatic environment - From marine to food systems. *The Science of the Total Environment*, 823. <https://doi.org/10.1016/j.scitotenv.2022.153730>

Zhang, Q., He, Y., Cheng, R., Li, Q., Qian, Z., & Lin, X. (2022). Recent advances in toxicological research and potential health impact of microplastics and nanoplastics in vivo. *Environmental Science and Pollution Research International*, 29(27), 40415-40448. <https://doi.org/10.1007/S11356-022-19745-3>