

Acknowledgements

The Mangrove Ecosystem Fauna Research Activity, Biology Research Center-LIPI 2014 and Indonesia Marine Ornamental Fish In New Paradigm-RIIM 2024 funded the research. Thank you also to the relevant parties for the assistance in the field and the laboratory.

Conflict of Interest

The authors declare no conflict of interest.

References

1. HASANAH F.T. Characteristics of Land and Water Areas in Indonesia. *Geography Journal*. **20** (13), 2020.
2. KHAIRUNNISA C., THAMRIN E.T., PRAYOGO H. Characteristics of Land and Water Areas in Indonesia. *Sustainable Forest Journal*. **8** (2), 2020.
3. HARYONO H., GUSTIANO R., WAHYUDEWANTORO G. Sustainable Development: The Case for Aquatic Biodiversity in Indonesia's Peatland Areas. *IntechOpen, Rijeka*, 2022.
4. MUHTADI M.L. Analysis of Changes in Mangrove Forest Area in the North Belopa District, Luwu Regency. *Journal of Environmental Science*. **2** (2), 2020.
5. ENCHELMAIER A.C., BABCOCK E.A., HAMMERSCHLAG N. Survey of fishes within a restored mangrove habitat of a subtropical bay. *Estuarine, Coastal and Shelf Science*. **244**, 106021, 2020.
6. TAYLOR M.D., GASTON T.F., RAOULT V. The economic value of fisheries harvest supported by saltmarsh and mangrove productivity in two Australian estuaries. *Ecological Indicators*. **84**, 701, 2018.
7. MARLEY G.S.A., DEACON A.E., PHILLIP D.A.T., LAWRENCE A.J. Mangrove or mudflat: Prioritising fish habitat for conservation in a turbid tropical estuary. *Estuarine, Coastal and Shelf Science*. **240**, 106788, 2020.
8. TRAN L.X., FISCHER A. Spatiotemporal changes and fragmentation of mangroves and its effects on fish diversity in Ca Mau Province (Vietnam). *Journal of Coastal Conservation*. **21** (3), 355, 2017.
9. PERTIWI M.P., KHOLIS N., PATRIA M.P., SURYANDA A. Fish community structure in the mangrove forest of Panjang Island, Banten Bay, Banten, Indonesia. *Journal of Physics: Conference Series*. **1402** (3), 033066, 2019.
10. RAHMANI A.V., AL-IDRUS A., MERTHA I.G. The Structure of Mangrove Community in Regional Marine Conservation Area Gili Sulat West Nusa Tenggara. *Journal of Tropical Biology*. **23** (1), 42, 2023.
11. ASAN S.A., ANWARI M.S., RIFANJANI S., DARWATI H. Species diversity of fish in the mangrove foreshore of the Kakap River, Kubu Raya District, West Kalimantan Province. *Sustainable Forest Journal*. **7** (1), 279, 2019.
12. HERNAWATI R.T., WAHYUDEWANTORO G., WIBOWO K., RUSDIANTO R. Update on fish community in the mangrove ecosystems of Banyuasin Regency, South Sumatra, Indonesia, with the addition of the first record of the genus *Bostrychus*. *IOP Conference Series: Earth and Environmental Science*. **1191** (1), 012005, 2023.
13. JUMIATI A.K., SYAHBUDIN. Species Diversity of Fish in the Mangrove Waters of Muara Ujung Village, Tanah Bumbu Regency. *Journal of Life Education*. **6** (4), 172, 2020.
14. KADARSAH A., TURRAHMAH M., GAFUR A. Diversity of Fish Species in the Mangrove Ecosystem of Pagatan Besar Village, Tanah Laut Regency, South Kalimantan Province. *Technoscience Journal*. **14** (1), 80, 2020.
15. WAHYUDEWANTORO G. The fish diversity of mangrove waters in Lombok Island, West Nusa Tenggara, Indonesia. *Biodiversitas Journal of Biological Diversity*. **19** (1), 71, 2018.
16. HARYONO H., GUSTIANO R. Diversity, Threats and Its Behavior on Freshwater Fishes. Nova Science Publisher, Inc, New York. 2022.
17. GUSTIANO R. Non-destructive development: a case study of aquatic genetic resources in Indonesia. *Academia Letters*, Article 5101. 2022.
18. WAHYUDEWANTORO G., DINA R., HARYONO H., LARASHATI S., AISYAH S., SAURI S. First record of balashark, *Balantiocheilos melanopterus* (Bleeker, 1850), in the Muara Angke Wildlife Reserve, North Jakarta, Indonesia. *Pakistan Journal of Zoology*. **54** (6), 2022.
19. ALLEN G.R., SWAINSTON R. The Marine Fishes of North-western Australia: A Field Guide for Anglers and Divers. Western Australian Museum. 1988.
20. KOTTELAT M., WHITTEN A.J., KARTIKASARI S.N., WIRJOATMODJO S. Freshwater fishes of Western Indonesia and Sulawesi. Periplus Editions, Jakarta. 1993.
21. PERISTIWADY T. Economically important marine fish in Indonesia: identification guidelines. LIPI Press. 2006.
22. ODOM E.P. Fundamentals of ecology. Saunders, Philadelphia. 1971.
23. SOUTHWOOD T.R.E., HENDERSON P.A. Ecological Methods. Blackwell Science Ltd, London. 1978.
24. HAMMER O., HARPER D.A.T., RYAN P.D. PAST: Paleontological Statistics Software Package for Education and Data Analysis. *Palaeontologia Electronica*. **4** (1), 2001.
25. IUCN. Red List of Threatened. 2023.(accessed on 20112023)
26. DARMARINI A.S., DESRITA ., ONRIZAL. Food Habits of Several Fish Species in the Lubuk Kertang Mangrove Ecosystem, North Sumatra. *Tropical Marine Journal*. **26** (2), 293, 2023.
27. ROHMAWATI V.D., LATUCONSINA H., ZAYADI H. Fish Community in Different Mangrove Habitat in Banyuurip Ujung Pangkah – Gresik Regency. *Agrikan: Fisheries Agribusiness Journal*. **14** (1), 73, 2021.
28. MUCHLIS N., PRIHATININGSI H., RESTIANGSIH Y. H. Biological characteristics of silver sillago (*Sillago sihama* Forsskal) in Bombana Water, South East Sulawesi. *IOP Conference Series: Earth and Environmental Science*. **674** (1), 012010, 2021.
29. SYUKUR A., AL-IDRUS A., ZULKIFLI L. Seagrass-associated fish species' richness: Evidence to support conservation along the south coast of Lombok Island, Indonesia. *Biodiversitas Journal of Biological Diversity*. **22** (2), 988, 2021.
30. MAULIDA A.R. The Community Structure of Predominant Fish and Habitat Characteristic in Situ Ginting, South Tangerang City. Undergraduate Thesis. Universitas Islam Negeri Syarif Hidayatullah, Jakarta. 2023.
31. RIRIHENA M., LAPU P., WAKANO D. Study of the Diversity of Bubarra Fish (Carangidae) in the Waters of

- Wacheru Beach, Inner Ambon Bay. *Rumphius Pattimura Biological Journal*. **2** (1), 1, **2020**.
32. SIMANULLANG F., DJUWITO D., GHOFAR A. Distribution and Abundance of Fish Larvae in the Mangrove Ecosystem of Pasar Banggi Village, Rembang Regency. *Journal Management of Aquatic Resources*. **5** (4), 199, **2016**.
 33. AL JUFAILI S.M., JAWAD L.A., PARK J.M., AL SARIRI T.S., AL BALUSHI B.Y. Fish diversity of mangrove ecosystems in Sultanate of Oman. *Cahiers de Biologie Marine*. **62**, 235, **2021**.
 34. SWAPNA A., SANTHOSH R.B., SASIDHARAN V. Fish Diversity and Distribution in Carbyn's Cove Mangrove Habitat along the South Andaman Coast in Relation to Environmental Variables. *Research & Reviews: Research Journal of Biology*. **4** (1), 28, **2016**.
 35. HARAHAP A., KHAIRU L., KUSNO, SRIONO, FITRIA E., PANJAITAN B., JANNAH M., ILHAM K.I. Species composition and ecology index of the family Gobiidae at The Mangrove Belawan of Sicanang Island. *International Journal of Advanced Science and Technology*. **29** (5), 4877, **2020**.
 36. ULFAH M., FAJRI S.N., NASIR M., HAMSAH K., PURNAWAN S. Diversity, evenness and dominance index reef fish in Krueng Raya Water, Aceh Besar. *IOP Conference Series: Earth and Environmental Science*. **348** (1), 012074, **2019**.
 37. COPPING A.E., HEMERY L.G., VIEHMAN H., SEITZ A.C, STAINES G.J, HASSELMAN D.J. Are fish in danger? A review of environmental effects of marine renewable energy on fishes. *Biological Conservation*. **262**, 109297, **2021**.