Andri Hendrizal

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Google Scholar Profile | Scopus Profile

PROFESSIONAL SUMMARY

Lecturer and Researcher specializing in mangrove ecosystems and aquatic ecology. Experienced in teaching, scientific research, academic publication, and community engagement, particularly in coastal ecosystems and environmental sustainability. Currently pursuing a PhD in Institute of Biological Sciences at Universiti Malaya.

EXPERIENCE

Lecturer & Researcher

Aquatic Resources Mangement Department, Universitas Riau **July 2019—Present, Pekanbaru, Indonesia**

- Designed semester learning plans, instructional materials, and outcome-based assessments aligned with higher education standards
- Supervised undergraduate theses and research projects.
- Conducted scientific research in biodiversity, aquatic ecology and mangrove ecosystems.
- Published research articles in national and international peer-reviewed journals.
- Presented research findings at national and international academic conferences and seminars.
- Secured and managed competitive research grants funded by governmental and institutional programs.

Ocean Account Research and Engagement Consultant

World Resources Institute (WRI) Indonesia **May 2023— March 2024, Riau Province, Indonesia**

- Supported research activities related to ocean accounting, coastal ecosystems, and sustainable marine resource management.
- Conducted data collection, stakeholder mapping, and environmental assessments in coastal and marine areas of Riau Province.
- Assisted in the development and analysis of ocean account datasets to support evidence-based environmental policy and planning.
- Engaged with local communities, government agencies, researchers, and relevant stakeholders in coastal resource management initiatives.
- Facilitated discussions, workshops, and coordination meetings related to marine conservation and sustainable development programs.

Research Assistant

Center for Environmental Studies, Universitas Riau **February 2017—2019, Pekanbaru, Indonesia**

- Assisted in conducting research related to mangrove ecosystems, biodiversity, environmental monitoring, and coastal sustainability.
- Collected, organized, and analyzed field and laboratory data using qualitative and quantitative research methods.
- Supported the preparation of research reports, manuscripts, presentations, and grant proposals.

EDUCATION

- **Bachelor of Biology Education (S.Pd)**
- Biology Education Department, Faculty of Education and Teacher Training, Universitas Riau • 2009-2014

- **Master of Science (M.Sc)**

Master Program in Biology, Faculty of Biology, Universitas Gadjah Mada • 2014-2016

- **Doctoral Program (PhD)**

Institute of Biological Science, Faculty of Science, Universiti Malaya • 2025-Present

Training & Workshop

Small UAS Remote Pilot Training (Certificate)

- Drone Edutech, Indonesia 2026.
- Participated in Small UAS Remote Pilot Training focused on the operation and application of unmanned aerial systems (UAS). The training developed technical competencies in drone operation, aerial mapping, flight safety

Thematic Remote Sensing (Certificate)

- Geospasial Education, Indonesia 2025.
- Participated in a thematic remote sensing training program focused on mangrove area analysis and vegetation density assessment. The training enhanced technical skills in geospatial analysis, satellite image interpretation, and the application of remote sensing techniques for coastal ecosystem monitoring and environmental research.

Grant Writing Workshop (Certificate)

- Sciencemind, Indonesia 2024.
- Participated in a Comprehensive Grant Writing training program focused on developing competitive research proposals, identifying funding opportunities, and strengthening academic writing skills for national and international research grants. The training enhanced capacity in project planning, proposal development, budgeting, and research impact communication.

Pre-Doctoral Program (Certificate)
- University of Sopron, Hungary 2022.
- Participated in a Pre-Doctoral Program at University of Sopron in 2022, focusing on academic research development, international scientific collaboration, and preparation for doctoral-level studies in environmental and sustainability-related research fields.

Study of US Institute (SUSI)/YSEALI (Certificate)
- East West Center, Hawaii, United States of America 2013.
- Participated in an international training program at East-West Center focused on global environmental issues, sustainability, and international collaboration. The program was funded by the United States Department of State and provided interdisciplinary perspectives on environmental challenges, policy, and cross-cultural engagement.

Research Grants

National Competitive Research Grant (DPPM) – 2025
Funded by the Direktorat Penelitian dan Pengabdian kepada Masyarakat, Kementerian Pendidikan Tinggi, Sains dan Teknologi with a total grant of IDR 102,150,000. The research entitled "Exploration and Inventory of Traditional Ecological Knowledge in Mangrove Management as an Effort for Coastal Environmental Conservation in Riau Province" focuses on documenting and analyzing the traditional ecological knowledge (TEK) of coastal communities in mangrove management practices. The study aims to identify local ecological practices that can support more contextual, community-based, and sustainable conservation strategies for coastal ecosystems.

University of Riau Research Grant – 2025
Funded by Universitas Riau with a total grant of IDR 15,000,000. The research entitled "Behavioral Response Characterization of Giant Freshwater Prawn (Macrobrachium rosenbergii) toward Trap Fishing Gear" investigates the behavioral responses of giant freshwater prawns to trap-based fishing gear. The study integrates behavioral biology and fisheries technology to improve fishing efficiency while supporting sustainable resource management practices.

University of Riau Research Grant – 2022
Funded by Universitas Riau with a total grant of IDR 30,000,000. The research entitled "Development of a Limited Fisheries Production Sanctuary in the Seasonal Lake of Putus, Lubuk Siam Village, Riau, Indonesia" examined the development of fisheries sanctuary areas as a conservation-based resource management strategy. The project focused on balancing fisheries utilization and ecosystem protection within inland aquatic environments.

University of Riau Research Grant – 2021
Funded by Universitas Riau with a total grant of IDR 25,000,000. The research entitled "Analysis of Marine Debris Accumulation for Mangrove Forest Conservation Efforts in Purnama Village, Dumai City, Riau Province" focused on identifying and analyzing marine debris accumulation within mangrove ecosystems and assessing its ecological impacts. The findings contributed to the development of coastal pollution mitigation and mangrove conservation strategies.

University of Riau Research Grant – 2021
Funded by Universitas Riau with a total grant of IDR 30,000,000. The research entitled "Morphological and Genetic Characteristics (Mitochondrial DNA) as a Basis for Determining Sustainable Management Strategies of Giant Freshwater Prawn (Macrobrachium rosenbergii) Resources in Riau Province" integrated morphological and genetic analyses to understand the population structure of giant freshwater prawns. The study provided scientific baseline data for sustainable fisheries resource management and conservation planning.

PUBLICATION

- Inventory of Mangrove Types and Economic Potential Analysis through Mangrove-Based Products. Published in Egyptian Journal of Aquatic Biology and Fisheries Vol. 30 No. 1 (2026). This study focuses on the identification of mangrove diversity and the analysis of economic potential derived from mangrove-based products to support sustainable coastal community development and ecosystem conservation. PDF
- Global Scientific Contributions to Tropical Wetland Ecosystems: Insights from a Bibliometric Approach. Published in Egyptian Journal of Aquatic Biology and Fisheries, Vol. 30 No. 1 (2026). This study analyzes global scientific trends and research contributions related to tropical wetland ecosystems using bibliometric approaches. PDF
- Keyword Networks and Research Frontiers in Fisheries and Lake Management: A Comprehensive Bibliometric Approach. Published in Egyptian Journal of Aquatic Biology and Fisheries, Vol. 29 No. 4 (2025). The study explores research trends, collaboration networks, and emerging themes in fisheries and lake management studies. PDF
- Scientific Roadmap: A Bibliometric Analysis of GIS Use in Aquatic Resources Management. Published in AgroScience Research, Vol. 3 No. 1 (2025). This publication evaluates the development and application of Geographic Information Systems (GIS) in aquatic resource management research. PDF
- Peran Artificial Intelligence (AI) dalam Mengelola Beban Kognitif Mahasiswa Biologi: Kajian Sistematis. Published in Biology and Education Journal, Vol. 5 No. 1 (2025). This systematic review examines the role of artificial intelligence in supporting biology learning and reducing students' cognitive load. PDF

- The Effect of Soil Environmental Parameters on Mangrove Tree Growth in Lingga District. Published in Jurnal Penelitian Pendidikan IPA, Vol. 10 No. 12 (2024). The study investigates the influence of soil environmental parameters on mangrove growth dynamics in coastal ecosystems. PDF
- Trends in Scientific Publications on Aquatic Waste Management: A Bibliometric Approach. Published in Berkala Perikanan Terubuk, Vol. 52 No. 1 (2024). This research identifies scientific trends and research developments in aquatic waste management studies. PDF
- Pola Pertumbuhan dan Faktor Kondisi Ikan Tambakan (Helostoma sp.) di Danau Panjang, Riau. Published in Berkala Perikanan Terubuk, Vol. 51 No. 1 (2023). The study analyzes growth patterns and condition factors of freshwater fish species in inland aquatic ecosystems. PDF
- Morphological and Genetic Characteristics (Mitochondrial DNA) as a Basis for Determining the Direction of Giant Prawn (Macrobrachium rosenbergii) Resources Management in Riau Province, Indonesia. Published in Aquaculture, Aquarium, Conservation and Legislation, Vol. 16 No. 2 (2023). This research integrates morphological and genetic analyses to support sustainable fisheries resource management. PDF
- Sustainable Aquaculture in the Koto Panjang Reservoir, Indonesia. Published in Aquaculture, Aquarium, Conservation and Legislation, Vol. 15 No. 1 (2022). The article discusses sustainable aquaculture management strategies in reservoir ecosystems. PDF
- Local Wisdom and Conservation Status of Tor Thai Mahseer Fish (Tor tambroides Blkr) in the Batang Haluan River, West Sumatra, Indonesia. Published in International Journal of Conservation Science, Vol. 12 No. 4 (2021). This study examines local ecological knowledge and conservation status of indigenous freshwater fish species. PDF
- Pengembangan Budidaya Kepiting Bakau (Scylla sp.) Sistem Silvofishery untuk Melestarikan Hutan Bakau di Kabupaten Kepulauan Meranti Provinsi Riau. Published in Jurnal Kebijakan Perikanan Indonesia, Vol. 12 No. 1 (2020). The study explores silvofishery-based mangrove crab aquaculture as a strategy for mangrove conservation and sustainable coastal management. PDF

SKILLS

Remote Sensing & GIS: Familiar with spatial analysis, mangrove mapping, environmental monitoring, and geospatial data visualization using QGIS.
R Programming: Familiar with statistical analysis, ecological data processing, bibliometric analysis, and scientific data visualization using R.