



Nabila Afifah Azuga

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Lecturer in Marine Sciences specializing in physical oceanography. Focused on air-sea interactions, sea level variability, and climate-driven ocean changes. Research aims to link ocean processes with fisheries productivity and coastal resilience. Committed to transparent ocean monitoring and sustainable marine resource management to support ocean-climate mitigation strategies.

A. Education

1. Bandung Institute of Technology, Indonesia

- Master of Science in Earth Science (2021-2023)
- Thesis: Characteristics of Marine Heatwaves In The Subsurface Layer of South Java Sea Year 1993-2019
 - *Relevance:* Reflects applied research expertise in ocean climate variability, particularly subsurface marine heatwaves, which play a crucial role in shaping ecosystem health and fisheries productivity.
 - *Skills developed:* Data analysis, climate variability, and environmental monitoring.

2. University of Riau, Indonesia

- Bachelor of Fisheries in Marine Sciences (2016-2020)
- Undergraduate Thesis: Analysis of the Influence of the Indian Ocean Dipole Phenomenon on Sea Surface Temperature Anomaly Distribution and Rainfall Intensity in West Sumatra.
 - *Relevance:* Provides a foundational understanding of climate-driven ocean variability, particularly the role of the Indian Ocean Dipole in altering sea surface conditions and rainfall. These dynamics are crucial for anticipating changes in fishing grounds, supporting efforts in transparent, climate-informed fisheries management in the region.
 - *Skills developed:* Troubleshooting, problem solving

B. Professional Experience

1. Lecturer | University of Riau (2024-Present)

- Teach undergraduate courses in physical oceanography, emphasizing air-sea interactions and climate variability (e.g., ENSO, IOD, marine heatwaves).
- Conduct research on sea surface variability and its influence on fisheries productivity and coastal processes.

- Guide student research projects using satellite data and open-access platforms such as Global Fishing Watch.
- Support interdisciplinary initiatives promoting climate-informed, transparent marine resource governance and monitoring.

2. Environmental Specialist | PT. Lagio Arsandi (2024-2025)

- Prepare and review Environmental Impact Assessment (EIA) documents for infrastructure, coastal, and marine development projects in accordance with Indonesian environmental regulations.
- Conduct field assessments and analyze environmental, social, and ecological impacts to support evidence-based project recommendations.
- Collaborate with multidisciplinary teams and facilitate stakeholder engagement to ensure inclusive and sustainable environmental planning.

C. Skills

1. Data Analysis:

- Statistical analysis: (MATLAB, GRADs, Ocean Data View, Microsoft Excel).
- Climate data analysis: multi-years experienced working with large datasets (netCDF, GRIB, GeoTIFF, CSV)
- GIS analysis: (ArcGIS)

2. Technical Proficiency: Programming, Site Surveys, and Equipment Operation.

3. Languages: Indonesian (Native), English (Intermediate, ITP Score: 510)

D. Publications & Presentations:

Publications (Last 5 years)	Year
Oktavian, R., Azuga, N. A. , Hendris, S., Effendi, I., Azwin, A., & Bahar, E. (2025). Biodiversity of fish inhabit aquatic ecosystem in Senepis peat forest, Riau, Indonesia. <i>International Journal of Peatland Research and Innovation</i> , 1(1), 34–43.	2025
Azuga, N. A. , Effendi, I., Amin, B., Yunas, M., Rahayu, S., & Alfiah, L. N. (2025). Analysis of river water quality parameters in the Senepis peat forest area, Riau, Indonesia. <i>International Journal of Peatland Research and Innovation</i> , 1(1), 19–33.	
Nur, M. I., Aprisanti, R., Kurniawan, R., Yulindra, A., Azuga, N. A. , Kholis, M. N., & Limbong, I. (2025). Water quality management transformation through deep learning: From laboratory to large-scale implementation (ocean). <i>Asian Journal of Aquatic Sciences</i> , 8(1), 102–109.	2025
Azuga, N. A. , Zahra, Z. A., Andini, A. S., Fauzan, I., Khaira, A. U., Ilahi, I., Suhandha, D., & Nur, M. I. (2025). Review Dampak Penambangan Pasir Laut terhadap Dinamika Abrasi Garis Pantai di Kawasan Pesisir Indonesia. J-Tropimar: <i>Jurnal Riset Kelautan Tropis (Journal of Tropical Marine Research)</i> , 7(1), 53–67.	2025
Interannual variability of sea level anomaly (SLA) in the western Sumatra coastal waters driven by ENSO and IOD modulations. Azuga, N. A. , & Habibullah, A. D. (2024). <i>Asian Journal of Aquatic Sciences</i> , 7(3), 422–431.	2024

- Napitupulu, G., Radjawane, I. M., **Azuga, N. A.**, Pratama, K. R., Fekranie, N. A., & Park, H. (2023). Identification of Seasonal Water Mass Characteristics in West Sumatra Waters. In International Conference on Radioscience, Equatorial Atmospheric Science and Environment (pp. 531-543). Singapore: **Springer Nature Singapore**. 2023
- Azuga, N. A.**, & Radjawane, I. M. (2022). Subsurface Marine Heatwaves of South Java Sea: Trend, Frequency, Duration, and Cumulative Intensity Based on Assimilation Model (1993-2019), **Jurnal Perikanan dan Kelautan UNRI**, 27(3), 394–406. 2022
- Azuga, N. A.**, Galib, M., & Elizal. (2020). Analyzing The Effect of Indian Ocean Dipole Phenomenon to The Anomalies Distribution of Sea Surface Temperature in West Sumatera. **Asian Journal of Aquatic Sciences**, 3(3), 260-270. 2020

Presentations (Last 5 years):	Year
<i>Borneo Ocean Talks: Ocean Science and Climate Change</i> Universiti Malaysia Sabah, Malaysia	2022

E. Relevant Trainings

Trainings (Last 5 years):	Year
Pollutant Transport Modeling Training Through Groundwater Flow with Modflow (<i>Hydrological and topographic data processing</i>)	2024