

Dear Editor-in-Chief, Jurnal Riset Akuakultur

We wish to submit an original research article entitled “Water Quality Changes in the Coastal Area Before and After the Operation of an Intensive Whiteleg Shrimp Brackishwater Pond Aquaculture” (**ENERGY EFFICIENCY IN AERATION SYSTEMS FOR AQUACULTURE PONDS: A COMPREHENSIVE REVIEW**) for publication consideration in the Jurnal Riset Akuakultur.

We confirm that this work is original and has not been published elsewhere, nor is it currently under consideration for publication elsewhere.

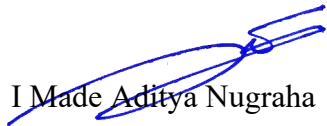
In this paper, we report the changes in the water quality in the coastal area that received effluent from an intensive whiteleg shrimp pond aquaculture and suggest several improvements to manage wastewater originating from shrimp farming. We employed various water quality parameters tested with statistical tools to determine the spatio-temporal variations of water quality parameters before and after the farming cycle of the shrimp farm. Our study’s findings offer a pathway for the governments and shrimp farmers to manage better effluent released to the surrounding coastal waters in Indonesia and other developing countries where intensive shrimp farming has yet to reach full gear (**This manuscript presents a comprehensive literature review on energy-efficient aeration systems in aquaculture. Aeration is essential for maintaining optimal dissolved oxygen levels, but it is also one of the most energy-consuming processes in fish farming. The study explores different aeration technologies, including paddlewheel aerators, diffusive aeration, venturi systems, and solar-powered aerators, comparing their efficiency and energy consumption. Key influencing factors such as pond design, water quality, and the integration of automation and sensor technologies are analyzed. The findings indicate that automation can reduce energy use by up to 40%, while renewable energy sources such as solar and wind can significantly cut operational costs and reliance on traditional electricity. The study emphasizes the importance of sustainable aeration strategies for improving productivity while minimizing environmental impact**).

Therefore, we believe this manuscript fits the focus and scope of your journal.

14 March 2025

Sincerely,

First/Corresponding Author



I Made Aditya Nugraha