



Thesis Abstract

Shrimp Farming and Water Quality Conditions in Phuket, Thailand
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The study characterized and conducted a preliminary assessment of the potential impacts of the shrimp farming industry in Phuket on the water quality in the coastal zone of Ban-Chi-Lao, Phuket, Thailand. A total of 29 randomly selected shrimp farmers were interviewed. Water samples were collected from four shrimp ponds and the adjoining coastal area and chemically analyzed. Description statistics and correlation analysis were done using SPSS.

Findings of the study showed that the general stocking rate in the study area was higher than the recommended stocking densities for shrimp farming. As a result, there is a tendency toward over feeding which could lead to water quality degradation, reduced survival rates, and increased possibility of shrimp disease outbreaks, hence, production was low.

The intake and coastal waters satisfied the coastal water quality standards (Class 4). The pond water pH and dissolved oxygen were within the acceptable ranges for shrimp production. Pond water temperature, TSS, secchi transparency, and salinity did not meet the optimum ranges for shrimp growth. The discharge water was of acceptable quality based on the standards for effluent water from aquaculture. Overall, the study showed that shrimp farming does not degrade the quality of water used in shrimp ponds and that of the coastal area when the pond water is released.