The Environmental Quality of Shrimp Ponds in Mangrove Areas

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Abstract: In Viet Nam and other Asian countries, shrimp production in coastal areas has developed rapidly over recent years. However, the expanses of shrimp ponds cause some problems including disease and environment pollution. A case study on environment quality of shrimp ponds in mangrove areas has been taken. This paper lays emphasis on: 1) to access pollution caused by the organic matters and nutrients in shrimp ponds; 2) accumulation of antibiotics in water and mud in-out of shrimp ponds. The organic and nutrient were high and increased during shrimp culture period. The concentrations of antibiotics in water and bottom mud of shrimp ponds were very high. Over 2ppm of trimethoprim and sulfamethoxazole were observed in the water samples of shrimp pond. More than 2.5mg/lg wet-mud of norfloxacin and oxolinic acid are found. The findings drawn in this paper would be useful for farmers as well as for managers in controlling environment in shrimp pond in mangrove areas.

Author Keywords: Accumulation; Antibiotics; Nutrient; Seawater; Shrimp pond in mangrove areas; Wet-mud

Index Keywords: Antibiotics; Biochemical oxygen demand; Filtration; High performance liquid chromatography; Organic chemicals; pH effects; Salinity measurement; Seawater; Viruses; Water pollution control; Water quality; Nutrients; Shrimp ponds; Wet muds; Environmental engineering

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