Bacterial profiles associated with semi-intensive shrimp farming: A case study on the farms bordering the Dutch Canal

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Bacterial profiles are becoming increasingly important in risk assessment for cultured shrimps and in Hazard Analysis and Critical Control Point (HACCP) plans for the export of cultured shrimps and in health management.

Bacterial profiles were monitored in shrimp culture ponds managed at semi-intensive level and water source to the farm. Total bacterial counts (TBC) in pond water fluctuated between 10^3 - 10^6 CFU/ ml and in pond sediment it fluctuated between 10^4 - 10^6 CFU/ ml. Total *Vibrio* counts were high in sediment when compared to water, throughout the culture cycle and luminous bacteria were observed both in sediment and water during most of the observation period.

Total bacterial counts (TBC) ranged from 10^2 - 10^5 CFU/ ml whereas total *Vibrio* counts varied from 10^2 - 10^4 CFU/ ml during the observation period in the Dutch Canal, which was the main water source.

TBC ranged in hepatopancreas were relatively high in moribund shrimps with typical signs of white spot disease (2.5 x $10^8 \pm 0.78$ CFU/ ml) when compared to shrimps without any visual symptoms from the infected ponds (8.3 x $10^4 \pm 2.3$ CFU/ ml)