

STUDY ON ABUNDANCE OF RED SEAWEED (*Gracilaria tenuistipitata*) IN THE IMPROVED- EXTENSIVE SHRIMP FARMS FROM BAC LIEU AND CA MAU PROVINCES

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Summary

Study on abundance of red seaweed (*Gracilaria tenuistipitata*) in the improved extensive shrimp farms were conducted monthly in Bac Lieu and Ca Mau provinces from October 2016 to September 2017 to provide scientific basis for future research on management and cultivation of this species in brackish water of the Mekong delta. Results showed that the mean coverage percentage of mixed seaweeds varied from 10% to 80% of farm area, biomass of red seaweed (*G. tenuistipitata*) and its natural productivities were relatively high with average range of 0.52 - 1.74 kg/m² and 2.13 - 11.78 ton wet weight/ha, respectively. These parameters showed greatly fluctuated during survey period. Analysis of Pearson correlation between environmental factors (within temperature range of 29.5°C - 35.7°C and salinity of 3‰ - 37‰) and red seaweed (*G. tenuistipitata*) indicated that abundance and productivity of *G. tenuistipitata* were significantly negative correlated with temperature ($p < 0.01$) and salinity ($p < 0.05$) in the study farms. Moreover, abundance and productivity of *G. tenuistipitata* showed statistically positive relationship ($p < 0.05$) with nutrient contents (NO₃⁻). These results indicated that red seaweed (*G. tenuistipitata*) was relatively abundant in the improved extensive shrimp farms and having high potential for cultivation and its application in aquaculture in the Mekong delta.

Keywords: *Gracilaria tenuistipitata*, improved extensive shrimp farm, coverage percentage, abundance, productivity.