

**A STUDY ON THE DISTRIBUTION AND
ABUNDANCE OF GREEN MUSSEL (*PERNA
VIRIDIS*) IN TWO AREAS; CHINABAY AND
KINNIYA IN THE TRINCOMALEE DISTRICT**

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ABSTRACT

The research study undertaken on the distribution of green mussel along the sea coasts of Trincomalee in the eastern province of Sri Lanka particularly in the Chinabay and Kinniya areas. Three sites which are different based on the level of pollution site 1- (unpolluted), site 2- (polluted), site 3- (semi polluted) were selected for the study. A survey was carried out to study the distribution pattern and abundance of green mussels in three sites using line transect method. The transect lines are laid perpendicular to the shore using a hand held GPS. The distribution pattern and the abundance of the green mussel is estimated by using quadrat sampling along the transect with a quadrat of 50 cm× 50 cm size. The abundance of green mussel in Kinniya (site 1 and site 2) and chinabay (site 3) areas are 1467/m², 214/m², 934/m² respectively. Data obtained from the three sites indicated that there is a significant difference among the three sites ($p < 0.05$). The physical and chemical parameters of the three sites are observed and evaluated scientifically throughout the four months study period. Revealed that the pollution levels of the three sites are significantly different and it directly influence the distribution pattern and abundance of green mussel.

Key words: Green mussel, *Perna viridis*, distribution, environment, abundance