

A STUDY ON REPRODUCTION AND EARLY GROWTH OF GREEN LIPPED  
MUSSEL (*Perna perna*) IN TUNJUNG COAST

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A study on recruitment and early growth of green lipped mussel  
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**A STUDY ON RECRUITMENT AND EARLY GROWTH OF GREEN LIPPED  
MUSSEL (*Perna viridis*) IN MUAR COAST**

**By**

**Mohd Luthfi bin Omar**

**Research Report submitted in partial fulfillment of  
The requirements for the degree of  
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FAKULTI PENGAJIAN MARITIM DAN SAINS MARIN  
UNIVERSITI MALAYSIA TERENGGANU

PENGAKUAN DAN PENGESAHAN LAPORAN  
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Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk:

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## ABSTRACT

Muar area is the mussel culture area especially in culturing green lipped mussel (*Perna viridis*). The availability of wild seed of green lipped mussel, this makes it easily to culture on the rope collector at the mussel platform. This study investigates the recruitment and early growth of *Perna viridis* at the rope collector and at the sea bottom. For rope collector, it divided into three parts which is upper, center and bottom part. Recruitment of *Perna viridis* spat in Muar coastal water shows highest peak on the beginning of August (24,900 indiv/m<sup>2</sup>) and it slowly decrease on the next month until the end of September shows the minimum recruitment (222.22 indiv/m<sup>2</sup>). The next month shows the recruitment slowly increases. While for the early growth shows the acceleration of growth rate increases 0.11 mm/week<sup>-1</sup> or 0.0002 mm/day<sup>-1</sup>. When rope divided to three parts, the recruitment on the center part shows highest settlement (35,000 indiv/m<sup>2</sup>) compared to the upper part (27,500 indiv/m<sup>2</sup>) and the bottom part (12,200 indiv/m<sup>2</sup>). For the early growth, on the initial 11 weeks shows highest growth of *Perna viridis* at the upper part, after 11 weeks the upper part shows declining on growth and the *Perna viridis* at bottom part shows increasing growth. The recruitment and early growth of the *Perna viridis* is affected by several factor either physical or biological factor. According to the study on the sea bottom shows that sediment structure which is soft sandy and muddy area are not suitable for spat settlement in the Muar coastal water area.