

GROWTH STUDIES OF PERNA PERNA IN
SUBTIDAL AND INTERTIDAL CULTURE

S.U.K. Ekaratne

Dept. of Zoology, University of Colombo.

The edible brown mussel, Perna perna was cultured subtidally and intertidally in the sea off the west coast of Sri Lanka. Mussels were confined to net-cages and grown subtidally by suspension from wooden rafts while in intertidal culture they were grown in net-cages secured to the intertidal rocky shore. Biweekly length measurements of experimental animals were used to study growth in shell length over a period of one year. Regression relationships based on monthly shell length-body weight measurements were used for studying growth of soft body tissue.

Growth measurements on mussels file-marked at the shell outer-lip established that growth in P. Perna approximated to the von Bertalanffy type. P. perna grew throughout the year showing maximum growth in April/May and minimum values during July/August and November. Growth occurred faster under subtidal conditions and during the faster growing months subtidal growth exceeded intertidal values by a factor of x2.5 to 3. Attempts to study growth through length frequency distribution studies of biweekly quadrat samples was unsuccessful since mussels were selectively collected from the natural beds by local fishermen for consumption.

Results indicate that culture to marketable size (c. 60 mm) is possible by culturing spat subtidally from October to June at which time seas of the western coast become rough thereby making culture rafts inaccessible or, sometimes, even destroying them by dashing them on the shore.

(The work was funded by I.F.S., Sweden (grant no. A/760-1)).