

DEVELOPMENT OF SUITABLE SPAT COLLECTORS FOR
BROWN MUSSEL CULTURE IN SRI LANKA

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The brown mussel, Perna perna is available naturally off the west coast of Sri Lanka. It is cultured commercially in other countries while in Sri Lanka, though it is not yet commercially cultured, its culture potential in terms of growth (Ekaratne, 1988a) and spat availability (Ekaratne 1988b) have been experimentally demonstrated. The present study was undertaken to develop cheap and efficient spat collector/s for use in brown mussel culture.

Spat collectors made from 12 locally-available, inexpensive materials were tested (viz., bitumen-impregnated roofing sheets, plastic roofing sheets, smooth and rough surfaced fibre-glass sheets, rubberized coir, brushed and unbrushed 14mm-diameter polypropelene rope, 18mm-diameter coir rope, "poly-coco" rope, 12mm nylon strapping, calicut tile, hardboard and coconut shell). Their spat collection performances were evaluated by exposing duplicate sets of spat collectors made from the above materials at subtidal as well as intertidal locations adjacent to mussel beds for periods of 2 weeks at a time continued over 12 months.

Unbrushed polypropelene rope performed best (at 11,184 spat/eg. meter) during the peak spat settlement period in April, exceeding levels required for commercial culture. It was 6 times more efficient than brushed polypropelene rope and coir rope which performed next best. Other materials exhibited much lower settlement efficiencies.

The study shows that unbrushed polypropelene rope placed in the sea around peak spat settlement periods performs efficiently as an inexpensive collector of brown mussel spat.

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References:

- Ekaratne, S.U.K. (1988a) Growth studies of Perna perna in subtidal and intertidal culture. Proc. 44th Ann. Sess. SLAAS, Sec. D, p.125(abstract).
- Ekaratne, S.U.K. (1988b) Availability of spat for the culture of Perna perna. Ibid, p.124 (Abstract).