Ovidius University Annals of Chemistry Volume 22, Number 1, pp. 47-56, 2011

Pilot project for the production of seed from commercially valuable molluscs: *Modiolus barbatus* (Bearded mussel)

Nadia B. BARILE[a], Edoardo TUROLLA[b], Luigi ANTONETTI[a], Mariaspina SCOPA[a] , Sabatino CAPPABIANCA[a], Giuseppina MASCILONGO[a], Eliana NERONE[a] and Sara RECCHI[a]

[a] *Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale", Centro Sperimentale Regionale per la Pesca ed Acquacoltura, Viale Marinai d'Italia, 20, 86039 Termoli (CB, Italy*
[b]*Centro Ricerche sui Molluschi (C.Ri.M.) - Via Dell'Agricoltura, 17, 44020 Goro (FE), Italy*

Abstract The aim of this study was to develop a pilot plant for the production of *M. barbatus* seed through artificial reproduction technology for possible use in aquaculture and repopulation of nursery areas.
The study involved various phases: setup of the pilot plant, sourcing of *M. barbatus* specimens and their transplantation to an offshore long-line farm; production of live food (phytoplankton); selection of broodstock; artificial reproduction in a controlled environment and larval and post-larval feeding in the pilot plant; refinement of the offshore farming technology and evaluation of yield on the long-lines with respect to the various production systems used and the different line depths. The specimens of *M. barbatus* raised on long-lines gave a good yield. The results of both the stimulation and larval farming confirm the applicability of the techniques described in the literature. Encouragingly, the daily mortality was lower than results reported to date (7.9%).

Keywords: *Modiolus barbatus*, bivalve molluscs, artificial reproduction, farming, long-line, mollusc culture.

ISSN-1223-7221