Reproductive investment of the American razor clam *Ensis americanus* in the Dutch Wadden Sea

Joana F.M.F. Cardoso[1,2], Johannes IJ. Witte[1], Henk W. van der Veer[1]

1 NIOZ Royal Netherlands Institute for Sea Research, P.O. Box 59, 1790 AB Den Burg Texel, The Netherlands
2 CIMAR/CIIMAR Centro Interdisciplinar de Investigação Marinha e Ambiental, Universidade do Porto, Rua dos Bragas 289, 4050-123 Porto, Portugal

Abstract
The American razor clam *Ensis americanus* is a marine bivalve indigenous from the American coast that was introduced in Europe in the late 1970s and has managed to build up strong populations along the European coast. In the present paper, we studied energy investment into soma and gonads by following the seasonality in growth and reproduction of this species in a subtidal area of the western Dutch Wadden Sea. Body and somatic mass indices showed a seasonal pattern with maximal values in August and minimal in April. Gonadal mass index showed the opposite trend with highest values in April. Spawning started in April/May and a second, but weaker, spawning event apparently occurred in August/September. Gonadosomatic ratio values were very low. Just before the spawning period, only 2.5% of the body mass of *E. americanus* consisted of gonads.