

# **Book of abstracts**

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# **FEEDING AND GROWTH OF THE MYSID *NEOMYSIS INTEGER* ON AGGREGATES IN THE MTZ OF THE SCHELDT ESTUARY**

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In the brackish part of western European estuaries the mysid *Neomysis integer* is dominating the hyperbenthic fauna and plays an important role in the local food web. Estuarine aggregates showed to be abundantly present in the stomachs of *N. integer* living in the estuarine turbidity maximum (Fockedeey *et al.*, 1999). However, it was not clear if the mysids actively fed on the flocs, nor if they could survive or grow on this dietary item.

The aim of this study was to identify the survival and possible growth of *Neomysis integer* feeding on estuarine aggregates. First, a technique to make laboratory-made aggregates out of natural water of the Scheldt Estuary – by means of a roller table – had to be optimised. Subsequently, a 7 weeks lasting growth experiment was performed with laboratory-made aggregates as the main food item. The growth performance (measured by the mean growth rate, intermoult period and growth factor) on a diet of aggregates was compared with that on a diet of *Artemia* nauplii. The mysids survived well (70 %) and even grew significantly (0.059 mm day<sup>-1</sup>) on a diet of flocs, though less than the individuals on a diet of *Artemia* (0.094 mm day<sup>-1</sup>). Also, rough estimates of the feeding rate (38 ± 18 aggregates h<sup>-1</sup>) and the gut passage time (30 minutes) of *N. integer* feeding on laboratory-made aggregates were determined.

Estuarine aggregates probably are an important additional food source for *Neomysis integer* living in the turbid zone of estuaries. The very high abundance and small effort needed to consume the flocs, might compensate their relative low energetic value.

## **References**

Fockedeey N. and J. Mees (1999). Feeding of the hyperbenthic mysid *Neomysis integer* in the maximum turbidity zone of the Elbe, Westerschelde and Gironde estuaries. *Journal of Marine Systems* 22: 207-228.