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Cannibalism as a population regulating mechanism in the brackish-water isopod *Saduria entomon* (L.)

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Quantitative field samples and laboratory experiments were used to investigate the importance of cannibalism in the benthic isopod *Saduria entomon*. Comparisons were made between shallow and deep living specimens in regard to size-distributions and gut contents. The laboratory experiments were performed to investigate the predation efficiency of intermediate sized *S. entomon* on the common prey species *Pontoporeia affinis* (Amphipoda) and small *S. entomon*.

Shallow and deep living *S. entomon* exhibited different size-distributions. Shallow living *S. entomon* had an age-structured population where the number in each cohort declined with increasing age. Deep living *S. entomon* had a skewed size (age) distribution towards large (old) specimens. There existed a significant negative correlation between the number of small and large specimens in quantitative samples. There was evidence of cannibalism in the wild among shallow living specimens, otherwise the prey was taken in accordance with the composition of the benthic fauna. *P. affinis* was the dominant prey.

In the predation experiments large *S. entomon* were offered conspecific offspring and *P. affinis* in varying proportions. Small *S. entomon* were taken at higher frequencies than available at all proportions. Calculations of mortality due to cannibalism revealed that this behaviour has the potential to be an important mortality factor and population regulating mechanism in *S. entomon*.