

Poster presentation

Crepidula fornicata
in the Northern Wadden Sea

Metapopulation at the northern edge of the distributional range ?

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In the Sylt-Romo basin the American slipper-limpet *Crepidula fornicata* (L.) – unintentionally introduced in the 1930s - lives at the northern edge of its range in Europe. The species is sessile and attached to hard substrates, esp. molluscs. In the basin, it can be found on intertidal mussel beds (*Mytilus edulis*) along the low water line. Here, it is prone to lethal winter effects like freezing and ice scouring that regularly lead to local extinctions. In the very strong winter 1978/79 the population got almost extinct in the entire basin. However, the species managed to survive over the seventy years since its introduction. Can the species persistence in the basin be explained by a metapopulation structure of its population? Evidence from the field for such an assumption will be presented (e.g. individual dynamics of local populations) and suggest the metapopulation concept to be a helpful conceptual tool. For a final answer to the question current knowledge of dispersal might be too limited and remaining issues for future research are described.