

HERRING

Sustainable management of the natural resource HERRING

Coastal areas of the Southern Baltic Sea region are central spawning and nursery areas of the herring. Important spawning grounds are found in the German Greifswald Bay, the Polish Vistula Lagoon and the Swedish coastal waters of Blekinge and Skåne. Even though the ICES advice and stricter adherence of the approved total allowable catches have resulted in a more sustainable fisheries management, the two most important herring stocks of the Central Baltic and the Western Baltic Spring Spawning stock have declined substantially. Next to fisheries management measures, coastal spawning and nursery grounds play a vital role in the recovery of the herring stocks. Spawning success and epitaxial growth of fish larvae depends on the quality of coastal habitats (availability of macrophytes as spawning substrate, temperature, water and food quality, etc.) In future, spatial conflicts, climate change impacts and anthropogenic water quality deterioration will put additional pressure on coastal spawning and nursery areas. Until now, monitoring of the quality and importance of coastal spawning areas in the riparian member states has not been holistically taken into account for overall Baltic Sea fisheries management. Moreover, fragmented and partly conflicting competencies often impede sustainable coastal management.

The international project HERRING seeks to improve the sustainable and holistic management of herring fish in the South Baltic region, a major ecosystem resource, and with it both the reproductive capacity of the species and the success of future sustainable herring fisheries.

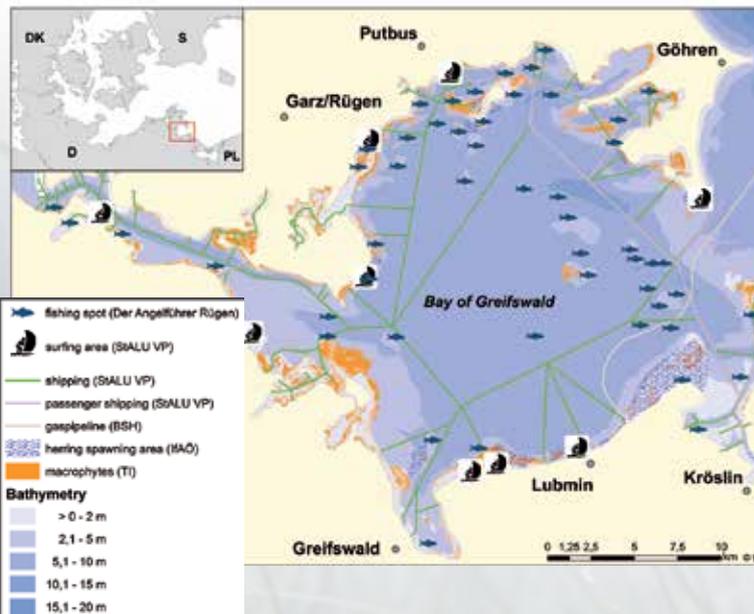
The project will address questions such as:

- What are the main stressors for coastal habitats and what are the drivers in terms of present and future anthropogenic impacts?
- What are the strengths and weaknesses of present marine ecosystem management with respect to the development of sound management strategies for spawning and nursery areas?
- Which stakeholders, institutions and authorities should work together at regional, national and international level to develop sustainable solutions for preserving those important habitats?
- What are the necessary tools and mechanisms to improve coastal management?

HERRING also aims at building competence and increasing awareness within coastal management structures. The project strives for the inclusion of the habitat condition and the monitoring of coastal spawning grounds into overall Baltic Sea (herring) fisheries and coastal management.

The course of the project is made up by three main steps. In a first step direct and indirect stressors that influence the ecosystem and contribute negatively to the herring spawning areas have been analysed. This information has been visualised in GIS maps showing the current state of spatial uses and possible future changes. In a second step the outcomes are to be discussed with regional stakeholders to identify critical influences as well as best practices for an improved coastal zone management. In 2014, experiences of regional round tables will be discussed on an international and cross-border level. As a final step, management recommendations for integrating regional and supranational spawn area management systems in the Southern Baltic Sea area into an integrated coastal zone management system are to be developed. Those recommendations will be given to local stakeholders, and regional and pan-baltic authorities.

More information about the project can be found online under www.baltic-herring.eu.



Map of the German case study region Greifswald Bay (© EUCC-D, Data sources: StALU VP: State Agency for Agriculture and Environment Vorpommern, BSH: Federal Maritime and Hydrographic Agency, IfAÖ: Institute of Applied Ecology, TI: Thünen Institute for Baltic Sea Fisheries)



Nardine Stybel and Inga Haller
EUCC – The Coastal Union Germany