

# Herring

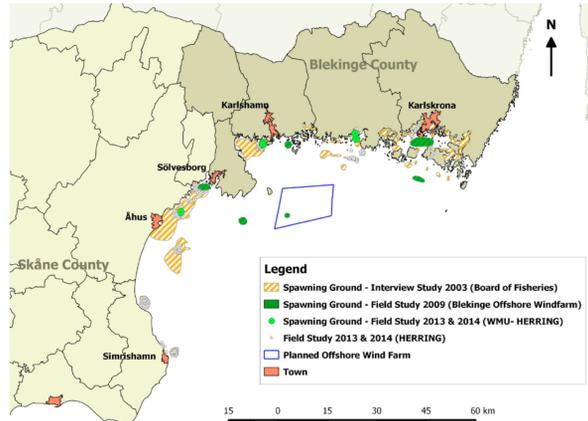
## Sustainable management of a natural resource

### Herring – heritage and natural resource of the South Baltic Sea

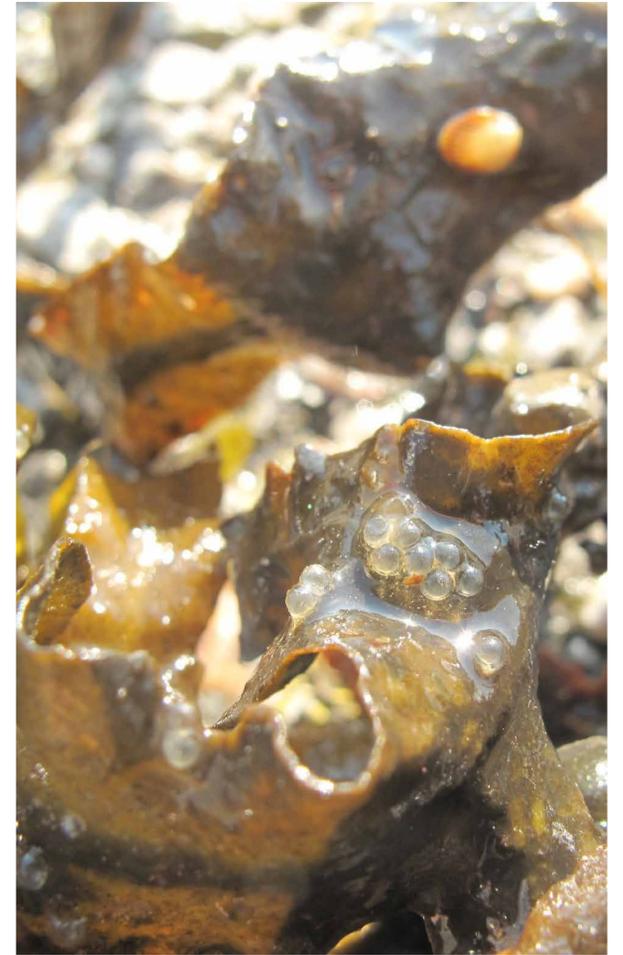


Herring (*Clupea harengus*) has had an important role for the population along the Swedish South Coast as an important food source and commodity. During the Hanseatic period in the 13th century and 14th century, there was an increase in the herring fishery in connection with the salt trade with Lüneburg among others. This gave the opportunity to kipper herring on a large scale. The number of fishermen grew slowly during the Middle Ages until 1864 when a regulation on freedom of trade were introduced and they no longer needed government permission to conduct business as fishermen. After this regulation the number of fishermen increased significantly and reached a peak in the 1880s. In the 20th century there was a development towards more effective fishing gear, larger fishing boats and higher operating costs, contributing to the decline of number of fishermen despite a substantial increase in the catch. The largest amount of herring fished today is caught by big trawlers and often as bycatch in fisheries targeting sprat. The small-scale coastal fishing usually occurs in association with herring migrating to the shallower coast to spawn.

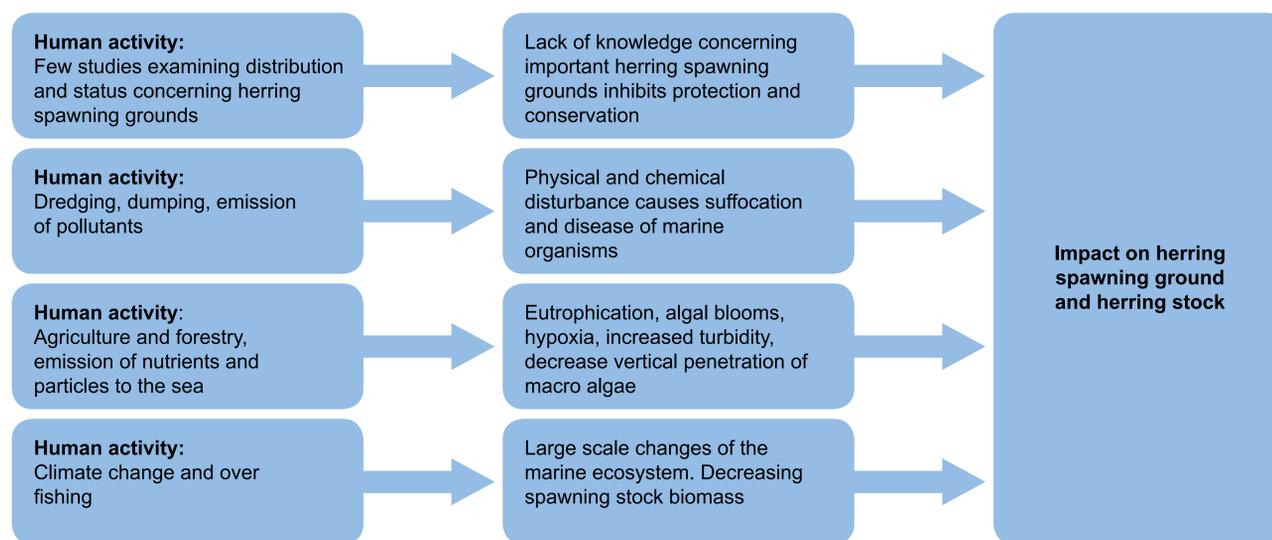
### Spawning of herring in the Swedish study area – Blekinge Archipelago and Hanö Bight



During spring and autumn herring migrates to spawn along the Swedish south eastern coastline. In Hanö Bight and Blekinge archipelago the spawning period for spring spawning herring is usually between March and June and the autumn spawners from September to November. Although as the spawning of herring is temperature dependent there are variation in spawning periods between years. After spawning the fertilized eggs sink to the bottom and adheres firmly to the vegetation and the underlying substrate. Herring roe has mainly been observed on various types of vegetation such as red algae, brown algae and eelgrass. As few field studies have been carried out to identify spawning areas and investigating the spawning patterns of herring, it has been important to seize the knowledge of fishermen and the locals.



## Challenges and approaches for a better practice



Detecting changes or a worsening status of the marine environment is of importance in a well-functioning environmental monitoring program as well as the ability to find the source of the stressors causing the environmental decline. Including examination of herring spawning grounds in an environmental monitoring program and/or herring stock assessment would contribute to valuable knowledge and facilitate the protection and conservation of these spawning areas.

It is a challenge when various human activities that have important community functions, such as activities creating employment and economic growth, also causes a degeneration in the marine ecosystem and environment. An ecological approach is needed to be able to recognize the long-term socioeconomic benefits that would be the outcome of a sustainable management of the marine resources such as herring.

