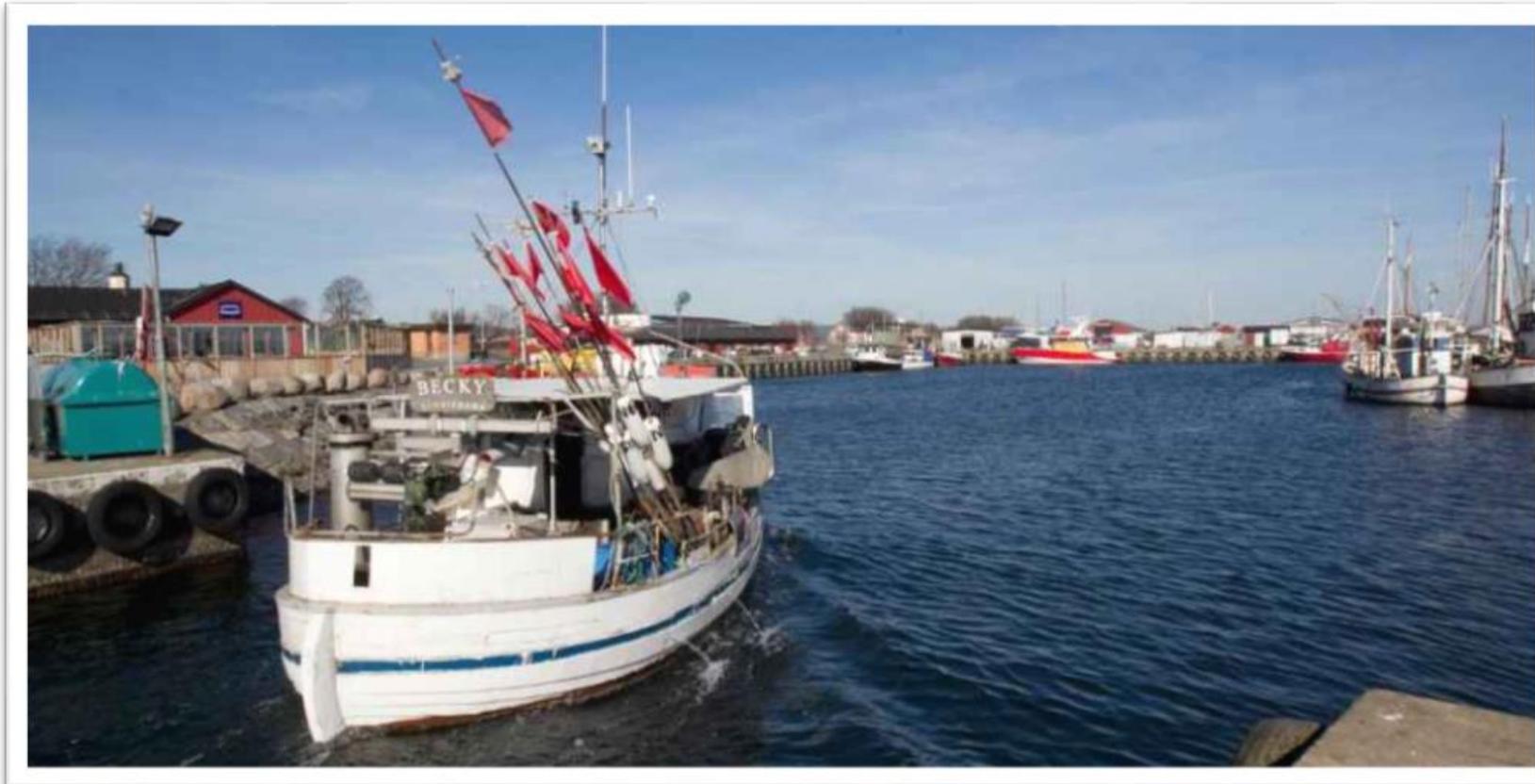


# A dedicated effort to improve the environment of the Hanö Bay area in the southern Baltic Sea

*– a new collaboration between the municipality of Simrishamn and Lund University*



# The Baltic Sea Eastern Skåne & the Hanö Bay

*Traditionally a big contributor to Skåne's wealth*  
*Fisheries*  
*Recreation – beaches - tourism*  
*Nature*

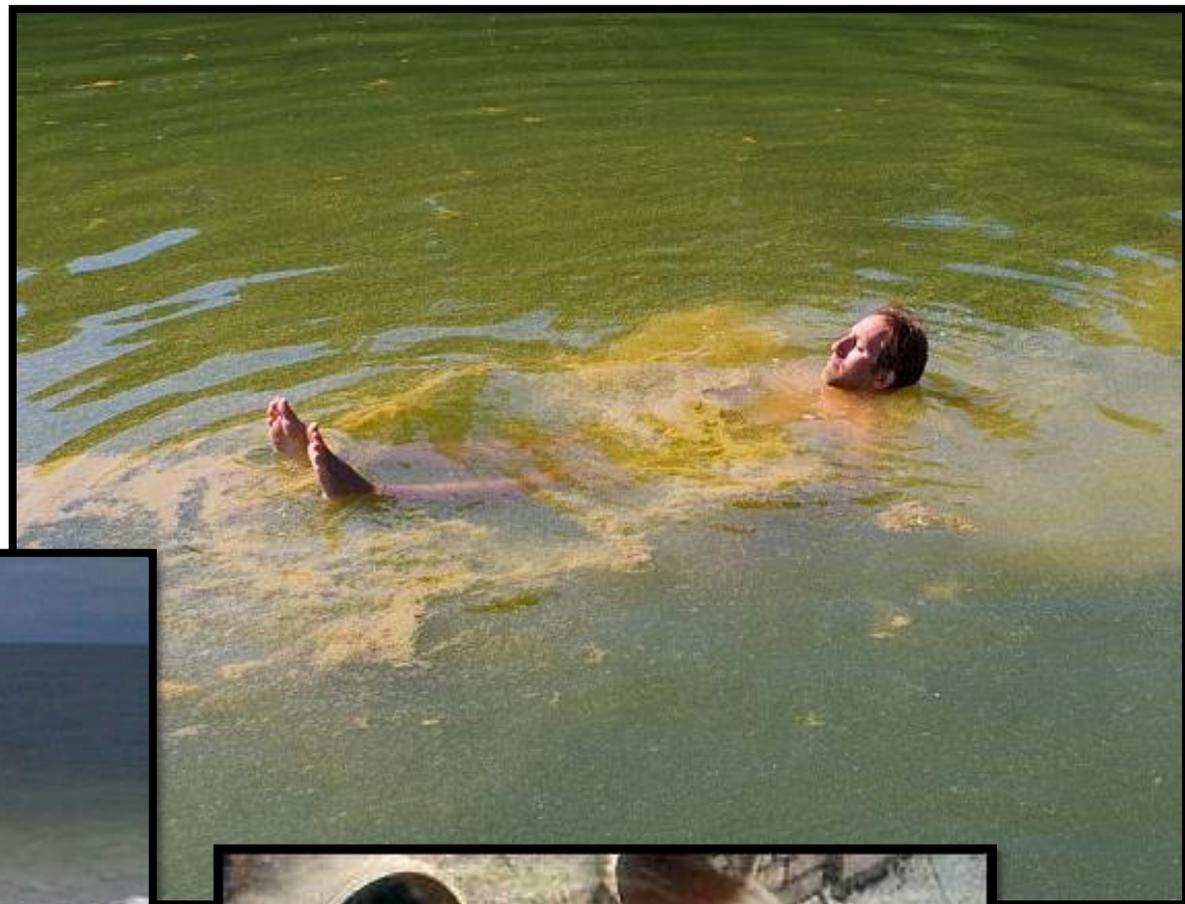


The fish in the Baltic Sea was until recently essential to the survival of people in the coastal towns and villages

Frans Lofström wrote in his book "*Kring Sandhammaren*" (transl. Around Sandhammaren) (1946) that the work men at the farms requested that salmon was only served to them once per week (*no more than that*)



HOWEVER..  
Things have changed



## *Some examples:*

- Declining fish populations, disrupted ecosystems, destroyed breeding grounds, invasive species
- Pollutants:
  - High contaminant levels inside organisms*
  - Persistent chemicals, pharmaceutical residues etc.*
  - Microplastics, debris*
- High nutrient levels in the water – more frequent and intense algal blooms
- Changes in land use, forestry -> organic matter run-off to the Baltic
- Erosion
- High-increasing cargo traffic
- Climate changes
  - warmer water, precipitation, sea level rise, CO2*



Solutions to many of these problems require cross-disciplinary research and direct collaboration with society and stakeholders

Transition to a more sustainable society

*natural science – humanities – political science – economics – engineering – law*

- and more -



# What will the Baltic Sea look like in the future?

Will we be able to live by the coast, swim in the water, experience nature, be tourists?  
Will we be able to eat the fish?

What are the sustainable alternatives to the way things are done today?



# The Baltic Sea is a unique environment

*Brackish sea with 9 countries around it*

*Fish species relatively few, only some 140 species occur regularly*

*”What is released here stays here”*



# Why initiate a new research environment in Simrishamn?

The Hanö Bay is suffering from many of the environmental problems found in various parts of the greater Baltic Sea, which makes it suitable for studies of solutions and causes of problems

From a national perspective – there is today no academic long-term research solely focused on the environment in the southern Baltic Sea/Hanö Bay area

Simrishamn is in a very strategic place, suitable for collaborations between regions and across the Baltic Sea borders



# HOW WILL IT WORK - STATUS OF INITIATIVE

Lund University and Simrishamn has signed a memorandum of understanding (MoU) to develop a research environment at Marint centrum

A lab environment will provide safe storage of collected samples and running experiments at site  
(can be developed further)

PhD students will be accepted in the environmental science PhD program at LU, and partly work in Simrishamn. Interdisciplinary work, across traditional research fields

At Marint centrum there will be people working with communications, interactions with society-businesses, fund raising and outreach

The 8 municipalities around Hanö Bay have formed an alliance and will be directly connected with the research, sometimes aiding directly on which questions are focused on.



# EXPECTED EFFECTS

- Put more focus on the environmental problems of the southern Baltic Sea
- Establish networks between academia – society – municipalities – management, organizations and interest groups
- Collaborations with regional businesses, for example work together on projects with the goal to increase a more sustainable use of resources from the Baltic Sea, and decrease negative environmental impact from different sources
- Develop new research fields for Lund University – study and understand the Baltic Sea, the marine environment and connections with society from cross-disciplinary collaborations
- Education, doctoral theses and scientific publications
- Make the Hanö Bay region \*great\* again



## Examples of research areas *(the initial phase)*

### ➤ Clean water

*Which toxins are present- from where, impact of plastic nanoparticles, improved methods for water treatment (sewage, industrial waste)*

### ➤ Biodiversity and ecosystem services

*Which species are present, missing? Diversity?  
Problems- balance?*

### ➤ How municipalities work with environmental issues/problems to create a more sustainable society

& Cultural values from the sea and coast



## **We also see that Marint centrum can be used for research concerning (for example):**

- Marine innovations: new materials, medicines
- Sustainable fisheries
- Food production – develop new products
- Coast-erosion – precipitation- climate change
- How the sea can increase attractiveness of rural communities
- More!



THANK YOU

