Learning to handle

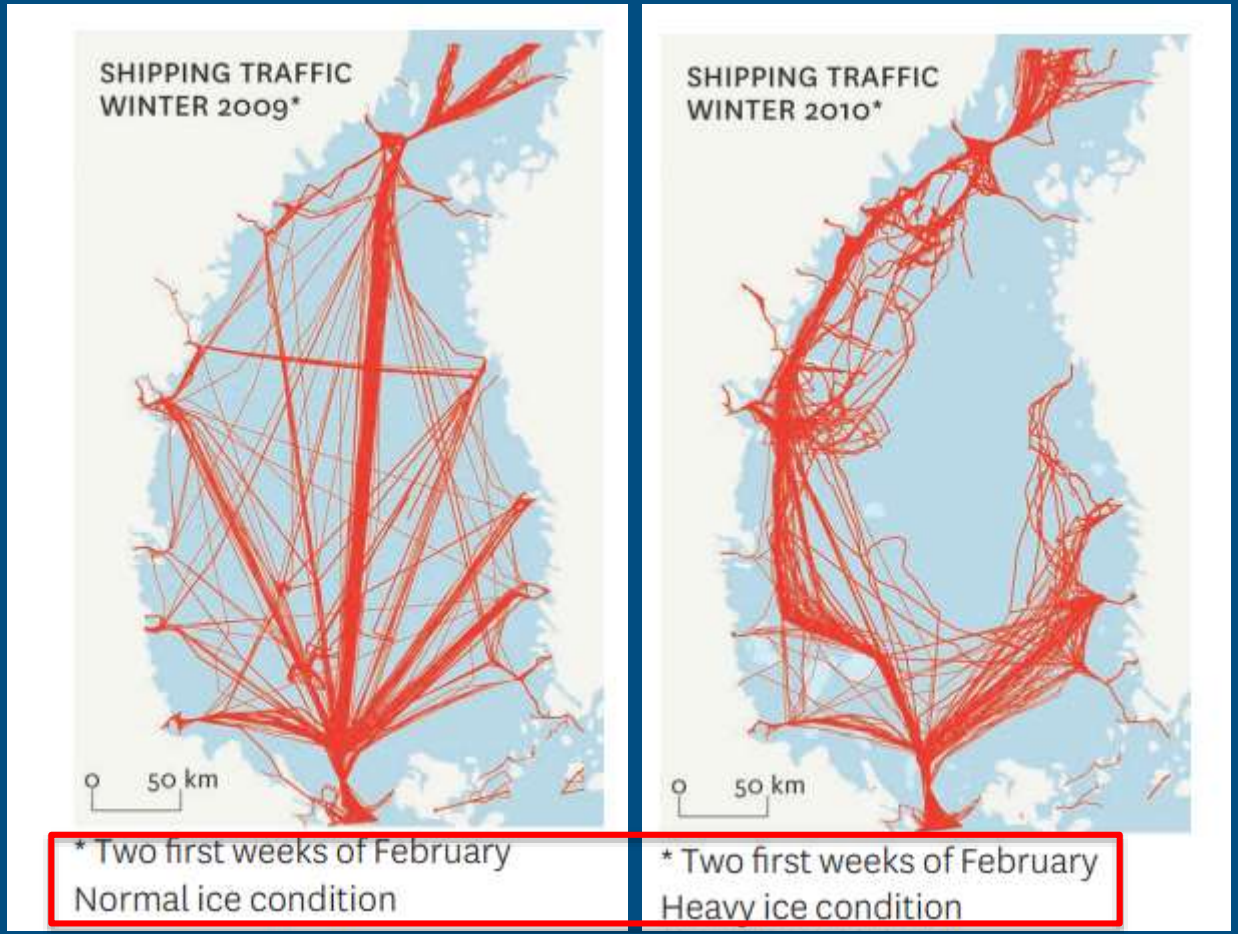
Automatic Identification System Data

at the HELCOM Secretariat

Manuel Frias & Florent Nicolas
HELCOM AIS 26-2015, Gdynia, Poland
19-10 May 2015

Why do we use AIS Data at the Secretariat?

Plan Bothnia



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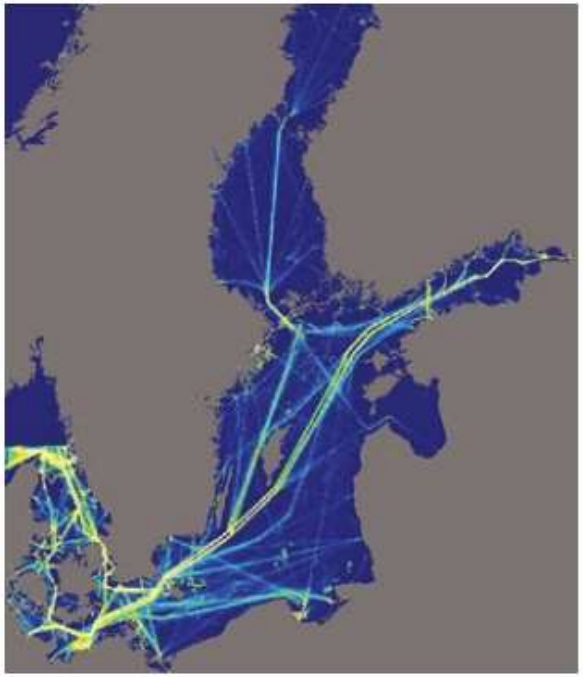
HELCOM Maritime Assessment

Chapter I: Introduction

Due to its narrow straits, shallow waters and its vast labyrinths of skerries and islands, the Baltic Sea has always been a difficult area for ships to navigate; nevertheless, the Baltic has always also been a blessing. Together with the forests and fields it has been a central lifeline to peoples living on these northern shores and this relationship continues today in the form of a multitude of maritime activities. Alongside maritime traffic, which has grown remarkably during recent years, there are extensive plans for wind power and continuing fisheries among others. The role of the first part of this report is to give a short overview of a suite of maritime activities in the Baltic Sea to be complemented by more specific chapters mainly focusing on shipping.

Ships in numbers

Since 1 July 2005, the whole Baltic Sea area has been covered by an interlinked network of land-based Automatic Identification System (AIS) stations. AIS was invented for the exchange of information between ships and between ships and shore stations. Ship traffic in the Baltic Sea based on AIS signals is presented on **Map 1**.



Map 1: Ship traffic in the Baltic Sea during one week in 2008. Data are calculated on a grid, showing the areas of heavy traffic. Source: HELCOM AIS.

The HELCOM shore-based AIS network provides a monitoring tool for supervision, risk analyses,

In 2009, vessels entered or left the Baltic Sea via Skaw 62,743 times (figure representing the

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HELCOM Holistic Assessment

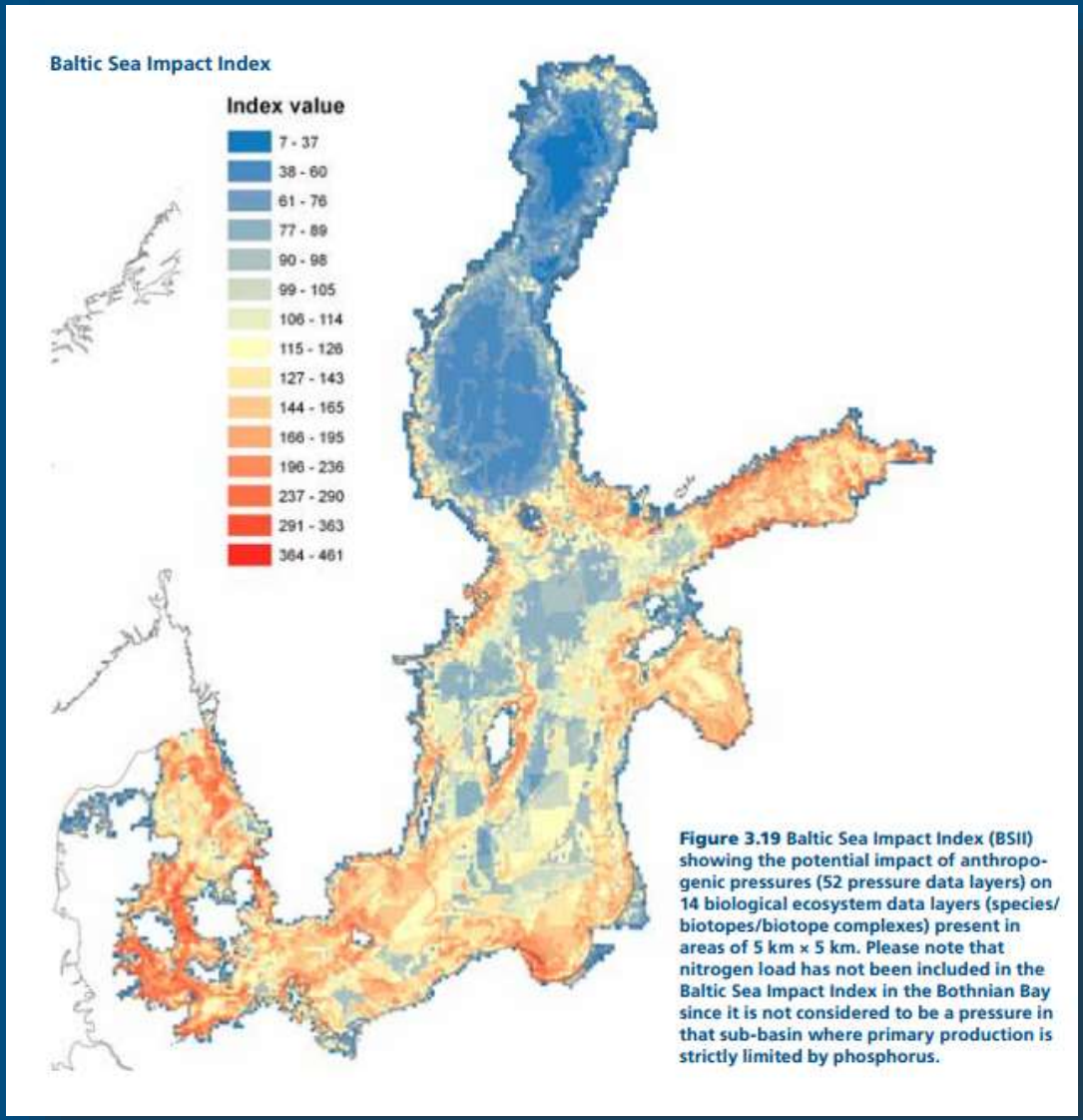


Figure 3.19 Baltic Sea Impact Index (BSII) showing the potential impact of anthropogenic pressures (52 pressure data layers) on 14 biological ecosystem data layers (species/biotopes/biotope complexes) present in areas of 5 km × 5 km. Please note that nitrogen load has not been included in the Baltic Sea Impact Index in the Bothnian Bay since it is not considered to be a pressure in that sub-basin where primary production is strictly limited by phosphorus.

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Why don’t we use the full potential of AIS data?

Problem 1: lack of resources



Problem 2: limited knowledge



Problem 3: no data in Secretariat



Problem 4: lack of infrastructure



Arkadiusz Sikorski

Luckily, we started recently a new project



Baltic SCOPE

Towards coherence and crossborder solutions in Baltic Maritime Spatial Plans

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Baltic SCOPE

Towards coherence and crossborder solutions in Baltic Maritime Spatial Plans

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Improve AIS data handling at the Secretariat?



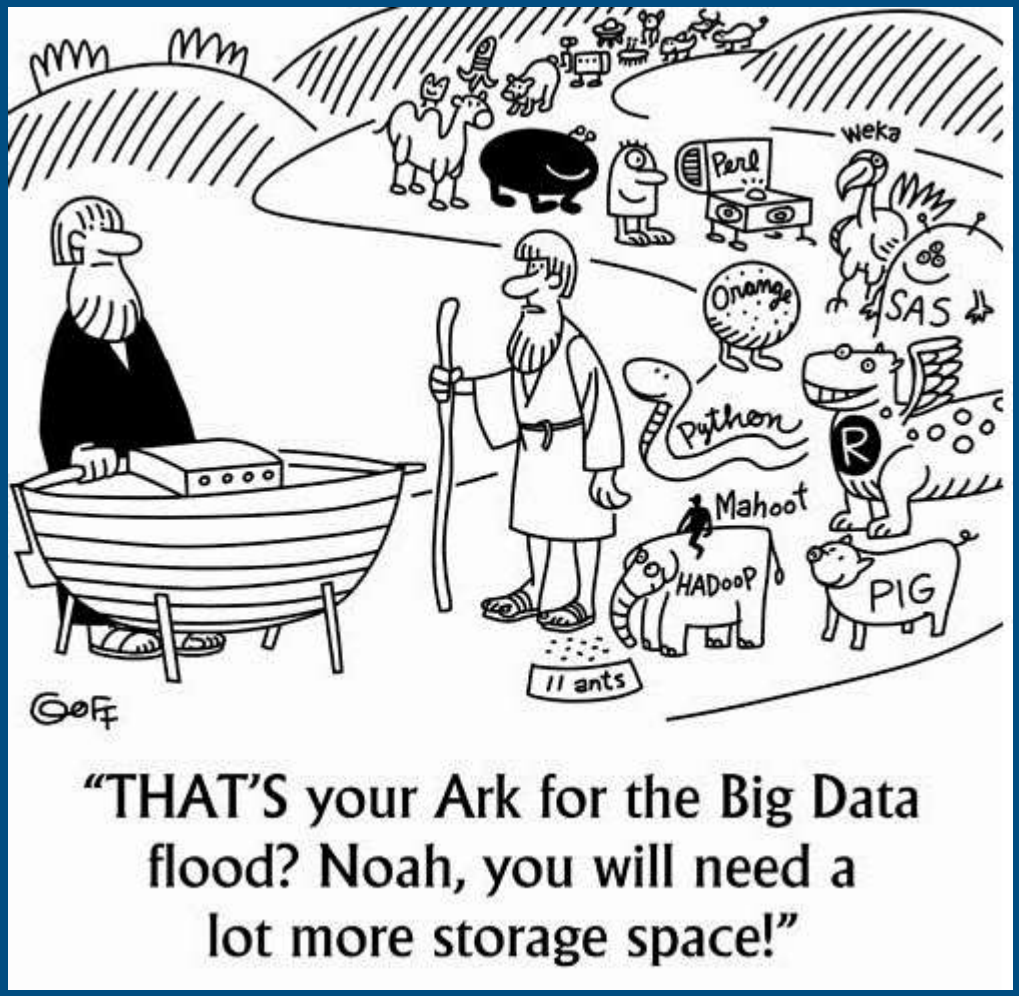
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How will we do it?

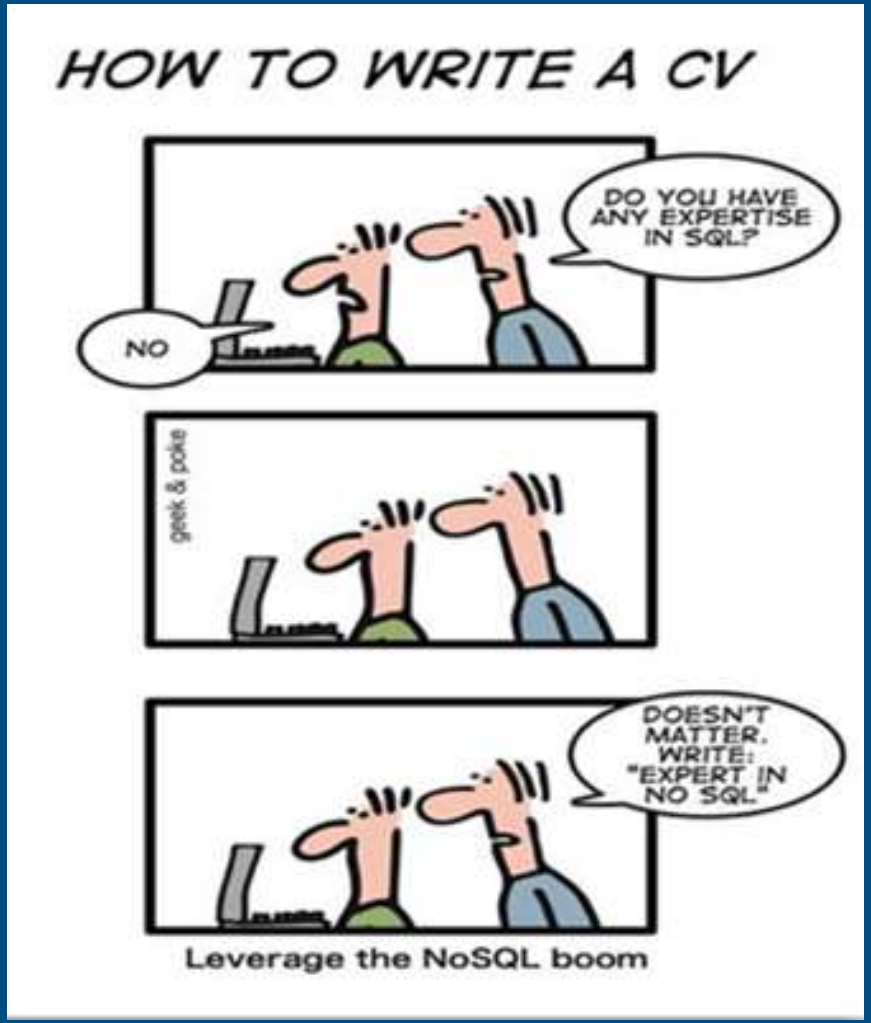
Interviews with AIS data users



Acquiring better computers



Learning how to handle the data



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Learning better ways to visualize the data



Defining methods to handle AIS data

