

# Dumb as a cod: Fisheries in the Baltic Sea

by Peter Rossing and Dirk Zeller

Historic chronicles from the monk Saxo in the 12<sup>th</sup> century suggest that the oars from fishing boats would get stuck in large schools of herring during their migration through the Sound of Denmark. The abundance of herring was such that they could be caught with bare hands and literally shoved into barrels (Grammaticus, 1980).



Magnus, Olaus. (1555) *Historia de Gentibus Septentrionalibus*. Description of the Northern Peoples. Image obtained with thanks from Callum Roberts, University of York, UK

Herring was a highly valued export commodity, and was an important part of people's diet during Catholic fast. Cities like Copenhagen and Lübeck, if not founded on herring, drew much of their early wealth from the sale of Baltic Sea herring, and of their control of the salt required for preservation (Grammaticus, 1980). The historic importance of fishing in the Baltic Sea is such that many metaphors commonly used today relate to fish. In Danish, something worthless is 'not worth five sour herrings', a beautiful woman is a 'delicious herring', and if somebody calls you 'dumb as a cod' you have likely done something of the lowest intelligence. A major

newspaper even has the 'new year cod prize' that is given to the politician who made the biggest blunder during the year.

Ironically, this appreciation of cod is a fitting description for how the management of the fisheries resources in the Baltic Sea has gone awry. The once abundant cod is now at risk of stock collapse as the Baltic countries (Denmark, Sweden, Germany,

Poland, Russia, Lithuania, Estonia, Latvia and Finland) continue to sidestep and ignore International Council for the Exploration of the Sea's (ICES) scientific recommendations for a complete moratorium, because they cannot agree on terms

(WWF, 2008). Other species also in trouble are eel, which have gone nearly commercially extinct, and salmon, which now contain so much dioxin that fish over 4.4 kg are deemed unfit for human consumption (Lövin, 2007). Eutrophication is also a substantial problem as the Baltic Sea is now regularly hit by massive toxic blooms of blue-green algae and by anoxic events which leave large areas lifeless during the summer season (ELME, 2007).

A Swedish businessman, Björn Carlson, decided in 2006 to actively contribute to reversing these disastrous developments by setting up the *Baltic Sea 2020 Foundation* ([www.balticsea](http://www.balticsea)

2020.org). His 500 million SEK (US\$ 60 million) person donation represents the single largest ever made in Sweden. The entire capital is to be used by 2020, hence the name of the foundation. The aim is to stimulate concrete measures to improve the environmental quality of the Baltic Sea.

The *Sea Around Us* Project is contributing to the work of the *Baltic Sea 2020 Foundation* by reconstructing total catch time series for all Baltic countries from 1950. Only the landings from commercial fisheries have traditionally been reported from the Baltic countries, and incompletely at that. It is therefore widely recognized that the region's official statistics underestimate true catch (although formal stock assessments do account conservatively for discarding), as they do not take into account Illegal, Unreported and Unregulated (IUU) catches. Policy makers have therefore historically underestimated the impact of fishing on stocks, and hence on the decline seen in some of the Baltic fisheries.

Our work, when completed in April 2009, will provide a better baseline for analyzing long-term trends by going beyond what is officially reported by the Baltic countries' governments (and hence ICES) from 1950 to the present.

The basic approach to, and philosophy behind, catch reconstructions is described in

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Zeller *et al.* (2006; 2007). In essence, we utilize every data- and information-source available to us (including grey literature, media sources and expert knowledge) to obtain data 'anchor points' in time regarding nominal and IUU catches (including recreational), as well as discards. We have also endeavored to establish collaborations with local in-country experts in the Baltic region, as local input, knowledge and experience are particularly valuable in helping us to develop reasonable data time series. Therefore, Peter Rossing has been busy over the last 8 months establishing and nurturing, relationships with scientists in the Baltic region that share an interest in collaborating with us. We have successfully established collaborations in Sweden, Finland, Germany, Russia, Lithuania and Latvia, and have been able to get access to material and sources from Poland. As a Dane, it has been a particular privilege for Peter to travel around the Baltic region. Generally, our request for collaboration and advice has been well-received, as most people appreciate the relevance of what we are trying to achieve. The goodwill and information generated from these meetings

and collaborations cannot be underestimated.

However, a substantial problem has been the political sensitivity over access to existing spatially disaggregated discard and illegal catch data, despite the fact that most government institutions in the Baltic and ICES have access to such data. ICES, for example, utilizes such discard data to improve their yearly stock assessments and fisheries advice to the European Union. However, they are under considerable political pressure not to disclose the country-specific disaggregated data, as Baltic country governments would be embarrassed if singled-out as a major culprit of illegal activities, or for wasting resources by throwing dead fish back into the sea.

Peter found another example of how politics can interfere with the common good when he visited the Institute for Baltic Sea Fisheries in Rostock, Germany. Since 2004, this institute has been conducting extensive recreational catch surveys. This apparently benign project became a political hot potato when the results indicated that current German cod catches would be 50% higher if recreational catches were

included. Initially, the German government wanted to close down the project, however the results had already been published. Instead, the German government is now possibly faced with the uncomfortable situation of making an informed decision about how to divide their total cod quota between the recreational and commercial fishing sectors. It is amazing, given such shenanigans, that there are still cod left in the Baltic. Dumb Cod!

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## The Baltic Sea

There are approximately 100 fish species living in the Baltic Sea Region comprising Denmark, Sweden, Germany, Poland, Russia, Lithuania, Estonia, Latvia and Finland. The fish fauna include marine (e.g., cod, flatfish, sprat, herring), anadromous (e.g., Atlantic salmon, and Sea trout) catadromous (e.g., European eel) and fresh water species (e.g., pike and perch). The diversity, composition and distribution of the Baltic fish fauna is influenced by the brackish-water and enclosed nature of the Baltic Sea. The number of marine species is therefore highest in areas near the Danish Straits and diminishes eastwards and northwards as salinity decreases. The catches of cod, herring and sprat has, in recent times, accounted for approximately 95% of the reported commercial catches in the Baltic (ICES, 2007).

