

Dumb as a Cod Part II: The Case of IUU in the Baltic Sea

by Dirk Zeller, Peter Rossing and Sarah Harper

In a previous issue, we reported on fisheries in the Baltic Sea (Rossing and Zeller, 2008) and on our collaboration with the Baltic Sea 2020 Foundation in undertaking catch reconstructions for the nine coastal countries surrounding the Baltic Sea: Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden. The purpose was to obtain time series of total catch estimates, including so-called Illegal, Unreported and Unregulated fisheries catches (IUU), and compare these to officially reported statistics. The aim of the Baltic Sea 2020 Foundation is to stimulate concrete measures to improve the environmental quality of the Baltic Sea. In order to derive such policy measures for fisheries, one has to have an understanding of the scale and magnitude of the IUU problem. Our work, now completed (Rossing *et al.*, in press) and will soon be freely available at www.fisheries.ubc.ca/publications/reports/fcrr.php, provides a baseline of total fisheries catches, compared to officially

reported statistics from 1950 to the present. The basic approach to, and philosophy behind, catch reconstructions is described in Zeller *et al.* (2006; 2007). In essence, we utilize all data- and information-sources available (including grey literature, media sources and expert knowledge) to derive time-series data on reported and IUU catches (including discarded and recreational).

The Baltic Sea is often referred to as one of the most studied seas in the world (Kononen *et al.*, 2001). Ironically, relatively little seems to be known about the magnitude of IUU catches, and even less of that information is readily available to the interested public. While the International Council for the Exploration of the Sea (ICES), with responsibility for advising the European Commission on Total Allowable Catches (TACs) for the main commercial species caught in the Baltic Sea, does include its own estimates for unreported landings and discards in its annual stock assessment

working group reports, these data are not transparent to the public, and therefore the reports avoid identification of countries and individual magnitudes involved.

Our study clearly illustrated this practice (for 1950-2007), as our total reconstructed catches for the Baltic Sea were around 30% larger than the official statistics reported publically by ICES on behalf of its member countries (plus Russia). When the total reconstructed catches peaked in 1997, total catches were likely 43% higher than the reported statistics, while for the most recent period (2000-2007), total catches were around 35% higher than the reported data. All coastal Baltic Sea countries were implicated, but our analysis suggests that the top three offenders were those with the largest share of the TAC: Poland, Sweden and Denmark. Respectively, these countries represented 36%, 13% and 14% of our total reconstructed IUU (unreported landings,

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discards and recreational catches). Poland's large share of the IUU was driven by unreported cod catches estimated to be up to 300% higher than reported landings for some years, making it the main culprit during this period.

Without exception, unreported landings were the most serious IUU fishing activity, followed by discarding. For example, our estimates of unreported cod catches for 2000-2007 were 5 times higher than the unreported landings data used by ICES stock assessment working groups. It was not possible to determine which country data were driving this discrepancy, as ICES unreported landings data are not reported in a transparent manner. This seems to illustrate the problem of non-transparent data use by these

assessments, which is bound to influence management advice and policy decisions. Overall, the magnitude and preponderance of unreported landings by all countries strongly suggests considerable management and enforcement failures.

Discarding was also substantial, and is an entirely wasteful practice. Given the move to ecosystem-based management, such practices need to be phased out. The EU should seriously consider a discard ban on all fisheries, an approach successfully attempted by Norway. Such a move would require comprehensive observer coverage (ideally 100% and utilizing video system approaches) to ensure compliance and fairness.

Until recently, IUU issues have often been considered primarily a problem for developing countries (but see Coleman *et al.*, 2004). However, as the present study illustrates, IUU fisheries happen even in the most developed and richest countries, confirming that these highly developed countries with their substantial resources and well-established scientific, administrative, legal and management institutions have so-far failed to address IUU issues in a transparent and comprehensive manner.

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The *Sea Around Us* website may be found at www.seaaroundus.org and contains up-to-date information on the project.

The Sea Around Us project is a scientific collaboration between the University of British Columbia and the Pew Environmental Group. The Group supports nonprofit activities in the areas of culture, education, the environment, health and human services, public policy and religion. Based in Philadelphia, Pew makes strategic investments to help organizations and citizens develop practical solutions to difficult problems. In 2000, with approximately \$4.8 billion in assets, the Group committed over \$235 million to 302 nonprofit organizations.



The *Sea Around Us* is ten years old

by Daniel Pauly

The *Sea Around Us* is a collaboration between the University of British Columbia in Vancouver, Canada, and the Pew Environment Group, Washington, DC, devoted to assessing the impact of fisheries on the world's marine ecosystems, and proposing policies to mitigate these impacts.

The project started in mid 1999, and thus celebrated its tenth anniversary in July 2009. We are now preparing a retrospective for our years of activity (available at <http://www.seaaroundus.org/about/index.php/5-10-year-retrospectives/>). Through the years, our scope has increased, with more emphasis on fisheries economics and public policy, and our productivity has increased more than threefold – at least as measured by the number of peer-reviewed contributions authored and co-authored by our members. The reason for this massive increase is obvious: it took us several years to create the complex of layered databases that allow inferences on the

global ocean (Figure 1). Now that this complex is in place, it has become more straightforward to detect regional or global trends that were previously not visible, to assess them, and to develop policies to deal with them.

Thus for example, we can now deal with global catches not only in terms of the 'official' global landings assembled and disseminated by the Food and Agriculture Organization of the United Nations, but in terms of their Illegal, Unreported and Unregulated (IUU) components, which add to the global catch (see p. 1-2, this issue), and with the fishing effort, the gears and the costs (including subsidies) required to generate that catch, along with its economic value and its disposition through international trade. Also, we can infer long-term trends, because most of our databases start in 1950, and thus span over half a century. Moreover, in some cases where the science allows this, we project these trends into the future, as we are now beginning

to do in our studies of global change impacts on biodiversity and fisheries potentials (see, e.g., Pauly, D. and W.W.L. Cheung, 2009. *Sea Around Us* Newsletter No. 55, Sept./Oct..)

The availability of the *Sea Around Us* databases not only allows for more, deeper work by project members, including a host of productive graduate students, but has also generated a flurry of offers of collaboration, resulting in a spectrum ranging from the very fruitful (e.g., with *National Geographic*) to the sensitive, requiring diplomacy ("No, you can't have ALL our data, but we can talk about what you actually need, and which you can use given that you give proper credit"). They establish that the *Sea Around Us* has become an internationally respected player in both the scientific and policy arenas of global fisheries. Not too bad for a ten-year old!

Note: From 2010 on, the *Sea Around Us* Newsletter will be available only online.

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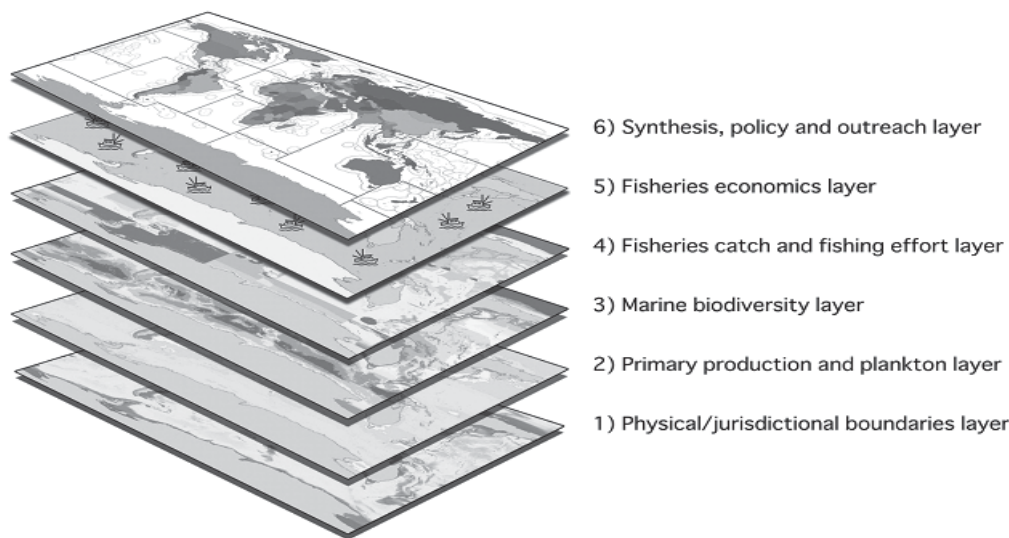


Figure 1. Illustrating the scope of the *Sea Around Us* through global 'layers', each representing types of data used and/or contributed to, and which, when jointly analyzed, represent the entire range of ocean issues.



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