

Seal-fisheries interactions in the Baltic Proper

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The rapid recovery in the Baltic seal populations since the 1980s, but particularly during the 2000s, has raised concerns in the fisheries sector, affecting stakeholders on multiple levels, from fishers to decision-makers and conservationists. The grey seal in the Baltic Sea prey on some of the commercially most important fish species, locally conflicting with some fishing activities. As a result, the seal hunting was reinstated in 1997 in Finland and in Sweden after years of ban. However, we do not yet know to what extent the seals are affecting fisheries resources in the whole Baltic Sea. Current population growth estimations derived from the number of counted seals during four decades of surveys, together with new data on the diet of grey seals in the region, have been integrated in an updated Ecopath with Ecosim model of the Baltic Proper. The magnitude of biomass flows to the seals, as well as the extent in which the predator-fishery interactions modulate each other and the system dynamics, are being investigated in order to evaluate the ecological significance of the seal-fisheries interactions. The outcomes of the model are expected to help elucidate whether seal conservation in the Baltic Sea can originate conflicts with the commercial exploitation of marine resources and provide recommendation to the fisheries management from an ecosystem approach.

Keywords: *Halichoerus grypus*, Ecopath with Ecosim, marine mammals, Baltic Sea, ecosystem-based fisheries management, ecosystem services.

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