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Workshop 5: Marine Mammal and Bird Bycatch in the Baltic Sea - Turning Knowledge Into Action WORKSHOP RESULTS

Baltic Coast Dialog

Date: 13-14 November 2025

Prof. Krzysztof Skóra Hel Marine Station, University of Gdansk, Hel, Poland

Key Discussion Points & Findings from Presentations

The fifth and final workshop addressed a further key driver of biodiversity loss in the Baltic Sea, bycatch of marine mammals and seabirds - highlighting a holistic approach to marine conservation and the urgent need for effective bycatch-reduction measures in fisheries.

Regulatory & Policy Landscape

EU level: A set of European Union (EU) legislative texts is in place to ensure the conservation of vulnerable marine mammals and birds in EU waters. The Birds Directive (2009/147/EC) and the Habitats Directive (92/43/EEC) prohibit the deliberate killing or disturbance of listed species, such as harbour porpoises and all seabirds, as well as the destruction of their habitats. EU Regulation 2019/1241 also bans the catching, retention, transshipment or landing of these species, though when caught accidentally the above shall be permitted for the recovery of the animal or scientific research purposes.

BALTFISH: The Baltic Sea Fisheries Forum - a regional fisheries body with the primary goal to improve coordination and cooperation among Baltic Sea member states. Between 2020 and 2021, BALTFISH submitted joint recommendations to the EU, which included measures such as a ban on static nets in areas important for harbour porpoises and the use of pingers in certain marine areas, with the aim of reducing the bycatch rate of harbour porpoises and other species.

ASCOBANS: Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas - A platform comprising governments, NGOs, intergovernmental organisations, fisheries and scientists to coordinate the conservation of small cetaceans in the Baltic Sea. Although ASCOBANS provides action plans, reporting frameworks and mitigation measures, it lacks enforcement capabilities. Challenges include fragmented jurisdiction between environmental and fisheries authorities, as well as practical issues such as the use of pingers and the regulation of gillnets.

HELCOM: The expertise on both small cetaceans and seals in the Baltic Sea is also provided by HELCOM through the EG MAMA, where bycatch mitigation is one of the target issues next to health status, abundance and other threats to the populations.

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Scientific Insights & Challenges

Monitoring: While bycatch is regarded as one of the most significant sources of premature mortality in many marine mammal and bird species, scientific data monitoring remains crucial.
Monitoring projects like the Static Acoustic Monitoring of the Baltic Sea Harbour Porpoise (SAMBAH) show Baltic harbour porpoise mortality exceeds safe limits, with seabirds also threatened by bycatch, especially near Polish estuaries.

Mitigation: Mitigation measures recommended by ICES and the EU, such as static net closures, seasonal restrictions, and the use of pingers, acoustic deterrents that keep marine mammals away from nets, have only been partially implemented. The use of pingers was shown to be effective for harbour porpoises but less so for seals, and alternative approaches must balance conservation goals with fishers' livelihoods. Offshore wind developments add additional threats, further highlighting the need for effective mitigation. HELCOM has developed a toolbox containing over 70 mitigation measures, including gear modifications, operational changes, and area closures. Seasonal closures during breeding or migration periods are effective for protecting seabirds, whereas year-round closures provide more comprehensive protection for porpoises. Local initiatives, such as those by Hel Marine Station (University of Gdansk), reveal the challenges of accurate data collection. After the 2004 EU ban on drift nets, voluntary reporting of bycaught animals by fishers ceased, obscuring bycatch impacts and pointing out the importance of implementing well-targeted and acceptable mitigation measures.

Adopt new measures: Challenges remain in convincing fishers to adopt new measures and in aligning mitigation strategies with existing regulations and economic constraints. Projects such as UNCATCH and STELLA 2 have explored innovative solutions, including tracking seabird behavior and testing alternative gears like pearl nets, fish pots, pontoon traps, and mini seines. Early results show promise in reducing bycatch while maintaining catch efficiency, although broad implementation is still limited. Emergency measures for the Baltic Proper for harbour porpoise, initiated by civil society in 2019 and followed by ICES and EU advice on mitigation measures in the Baltic marine NATURA2000 sites, have led to seasonal limits in gillnet fishery with the exception of Puck Bay, Poland, where only mandatory pinger use was implemented. Other recommended measures, including alternative gears and broader area closures, remain underutilized. A holistic transformation of fisheries is urgently needed, incorporating cumulative ecosystem effects, expanded monitoring, alternative fishing technologies, and education to foster a cultural shift toward mindful conservation. Across countries, mitigation measures vary, with Germany, Sweden, Finland, and Poland implementing localized closures, static net phase-outs, and pinger requirements, all limited to MPAs, yet a comprehensive and coordinated approach is still lacking. In the workshop, scientists agreed: Immediate action is needed without waiting for more data.

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A key result of the workshop was the development of concrete recommendations to reduce bycatch:

A) Marine mammals - Problems Identified

- REM/EM (electronic monitoring) inclusion of small vessels, and data collection still widely lacking
- Cumulative effects (windfarms impact) influence negatively marine mammal species
- Lack of cuntry based recommendations

Recommendations to reduce bycatch of marine mammals

- Deep transformation of fisheries through EBM (Ecosystem Based Management) → adaptive, flexible and cumulative effects are taken into account (see workshop 4)
- Create area closures for fishing and where no other activities are allowed, reducing fishing pressure, and ensuring each country monitors and enforces rules properly
- The Baltic Sea Fisheries Forum (BALTFISH)-toolbox should be fully used to support these actions
- Pingers should be used in certain offshore areas.
- Recommendations from ASCOBANS should be followed consistently
- ICES recommendations should also apply to waters outside protected areas, ensuring a coordinated approach to reduce marine mammal bycatch across the Baltic Sea
- REM (remote electronic monitoring) should be implemented on small vessels
- Country based control and compliance should be implemented
- Compilation of existing and new measures as a document sent to country representatives
- Areas outside territorial waters a way to go → EU competence

B) Seabirds - Problems Identified

- Areas of high seabird bycatches identified in different parts of the Baltic Sea
- Wintering and moulting areas at the highest risk, especially during peak fishing effort
- Cumulative effects: disturbance from tourism (kite surfing and recreational boats) can increase bycatch risk by relocating birds and increasing energy demands
- Accurate data on bird distribution and fishing effort is critical for creating risk maps and tailoring measures
- The cause of bycatch is different for birds than for seabirds so different measures are needed

Recommendations to recuce bycatch of seabirds

- Effective mitigation requires a targeted approach as there is no single solution.
- Most effective measures: seasonal closures in high-risk areas
- Where not possible, adaptations in fishing operations or the use of fishing gears can help, e.g.:
- night setting in combination with predator shaped kites (effective for velvet scooter, long-tailed duck, red-throated diver)

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- Other species (greater scaup, common eider) require species-specific approaches
- Real-time closures are an option in well-monitored areas, effective for species forming larger aggregations
- Complementary measures in other sectors, especially NATURA2000/SPAs, are essential

For both animal groups:

- Implement bycatch EM-systems as they have proven to be effective, innovative, and cost-efficient for assessing anthropogenic impacts on birds (and mammals)
- Awareness-raising and stakeholder engagement is needed to successfully mitigate indirect impacts
- Stakeholder involvement is key for acceptance and successful implementation of mitigation measures

C) Community Engagement

Challenges and realities

- Local and state authorities may resist conservation due to existing interests
- Conservation often relies on building a critical mass and sometimes requires compromise
- Role clarity is important to build and maintain trust

Engagement strategies

- Effective change requires engaging the public and influencing policymakersIdentify who needs to be engaged and how to reach people effectively
- On-the-ground involvement is key; without local engagement, change is difficult
- Physical presence, spending time with affected groups (e.g., fishermen), and finding common ground to help build trust
- Local contexts and traditional mindsets must be acknowledged
- Clear communication and shared language
- Influence changing the consumers priorities – environmental values are important
- To “break the bubble” and mainstream environmental issues, influential and trusted individuals are needed to reach wider audiences
- Environmental education needs to be successfully integrated into society and schools, particularly through relevant ministries (to adjust curriculum)
- Clear communication and shared language
- Using more precise terms (e.g. “biosphere” instead of “nature”, “literacy” instead of “education”) can improve the understanding of the goals

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- Communication should flow both ways – sharing knowledge and expertise while receiving knowledge back
- We need compelling, relatable narratives
- Stories that connect emotionally with people necessary to motivate engagement
- Multidimensional thinking and acting should be encouraged

Transformation and adaptation

- Old attitudes and measures cannot solve new problems.
- Power lies in the public: individuals outside formal institutions.
- Lasting change and transformation are rooted in ongoing adaptatio

In conclusion, effective Baltic Sea conservation requires bridging the gap between humans and nature, improving data collection and monitoring, implementing a wider range of mitigation measures, and fostering public and stakeholder engagement. **Bycatch remains a critical threat**, and **long-term solutions will depend on adopting holistic, mindful conservation approaches that integrate science, indigenous and local knowledge,** and an emotional connection to the marine environment. Without such transformative action, the protection of harbour porpoises, seabirds, seals, and broader Baltic Sea biodiversity will remain insufficient.