



Document title	Measures linked to disturbance from mobile bottom contacting fishing gear for inclusion to BSAP update
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Agenda Item	3 – Implementation and update of the Baltic Sea Action Plan
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Reference	Document 3-7 ‘Proposed new actions for the updated BSAP’

Background

In light of WWF’s recent report [A sea under pressure: bottom trawling impacts in the Baltic](#), released 28th September, WWF suggests for the Fish group to consider including set measures linked to disturbance from mobile bottom contacting fishing gear in document 3-7 ‘Proposed new actions for the updated BSAP’ under section theme: *Seabed disturbance*. The findings shown in the report support the need to fill gaps in the revision of the BSAP. This gap is also supported by the relevant commitment made by the Contracting Parties in the recent [European Our Baltic Conference Ministerial Declaration](#) Article 25:

Art 25. In order to achieve Good Environmental Status of the Baltic Sea in relation to sea-floor integrity and biological diversity, we COMMIT – when and where necessary - to limit the use of fishing gear most harmful to biodiversity and to reduce by 2025 the footprint of sea-floor disturbance by bottom-contacting fishing gears, particularly in sensitive areas; in addition we INVITE further development of new, more selective and less harmful fishing gear;

Action requested

The Meeting is invited to consider the proposed measures as gaps missing in the existing and proposed new actions of the BSAP.

Measures linked to disturbance from mobile bottom contacting fishing gear for inclusion to BSAP update

WWF report [A sea under pressure: bottom trawling impacts in the Baltic](#) gives the unarguable case of the numerous impacts of bottom trawling which go beyond target species and affect the whole marine ecosystem of the Baltic Sea, inhibiting the protection and preservation of seabed habitats and attaining the target objectives of the Marine Strategy Framework Directive.

The bottom contacting fishing gears have direct effects on the biodiversity of the sea by serially depleting the resource base, causing long-term physical damage to the seafloor, and altering the characteristic ecosystem balance and food web. The report also highlights the finding that bottom trawling can enhance the effects of eutrophication and compound the impacts of climate change.

Particularly important is the sediment resuspension and displacement in terms of rates and distance of resuspended sediment settling. Fine particle substrates take longer to settle and show greatest spread of resuspension from bottom trawling. This matter stays suspended in the water column for several days, and can travel more than one kilometer from the trawled area.¹ Assessment of trawling impacts in the Baltic Sea region shows that mud habitats in the western Baltic and Kattegat are fished the most widely and intensely, followed by sand and mud in lower salinity gradients.²

Physical trawl damage can destabilize the natural cycles of critical ecosystem processes including carbon, phosphorus, nitrogen and oxygen. Large oxygen-poor areas on the seafloor are an unfortunate intrinsic feature of the Baltic Sea. For areas with lower concentrations of oxygen, bottom trawling is adding to the effects of biogeochemical cycle disruptions.³ Mobile bottom contact fishing gears destroy the complex three-dimensional redox structures in surface sediments which can chemically remove nitrates or nitrites ('denitrification'). Denitrification is a critical ecosystem function where microbe and invertebrate communities remove bioavailable nitrogen, thereby helping to buffer against eutrophication, in soft sediment seafloor habitats. Not only does trawling activity lead to as much as a 50% reduction in net denitrification, the seabed's capacity to denitrify diminishes with each trawl pass, indicating a cumulative decline in resilience.⁴

Vast areas in the Baltic Sea experience permanent or temporary hypoxia, obliterating benthic communities and prey species for fish including cod. Many of the remaining oxygen-rich areas are heavily impacted by bottom trawling. The overall result is a sea where benthic biodiversity and food webs have very few chances of survival or recovery.

To date, soft bottom sediment is not protected in the Baltic Sea as these seabed types are not represented in Natura 2000 Habitat Directive, thus for the Baltic there is missing adequate reference areas and overall protection of such sites which have been continuously bottom trawled. Nor are species connected to soft bottom types protected under Annex II of the Habitat Directive.

¹ Bergqvist, L., 2020. Bottentrålning hotar havsbottnens integritet. Available at: <https://balticeye.org/sv/hallbart-fiske/forskare-bottentrålning-hotar-havsbottnens-integritet/> (accessed 04.08.20).

² Nielsen, J.R., Bastardie, F., Buhl-Mortensen, L., Eigaard, O., Gümüs, A., *et al.* 2014. Report on assessing trawling impact in regional seas. BENTHIS. Benthic Ecosystem Fisheries Impact Study.

³ ICES. 2019. ICES Ecosystem Overview: Baltic sea ecoregion. Available at https://www.ices.dk/sites/pub/Publication%20Reports/Advice/2019/2019/EcosystemOverview_BalticSea_2019.pdf (accessed 04.08.20).

⁴ Ferguson, A.J., Oakes, J. and B.E. Eyre. 2020. Bottom trawling reduces benthic denitrification and has the potential to influence the global nitrogen cycle. *Limnology and Oceanography*. Volume 5, Issue 3, pp237-245. doi: 10.1002/lol2.10150.

Gap measure: The BSAP should set measures to allocate fully protected scientific reference areas within remaining oxygen-rich soft sediment habitat type areas historically shown to have high trawling activity to form baselines for improved understanding of the cumulative pressures on the marine ecosystem and to measure biodiversity recovery along with knowledge gaps on carbon reserves and their storage potential.

Gap measure: In relation to the synopsis already submitted on [increasing MPAs in the Baltic Sea to 30% along with highly protected MPAs](#), this could further include for the highly protected areas to encompass buffer zones for the impact radius of resuspension plumes by bottom-contact fishing gear to spawning grounds and MPAs.

Gap measure: The Contracting Parties must coordinate with environmental and fisheries management in making use of Article 8 of CFP for permanent protection from mobile bottom contacting fishing gear within spawning areas and biologically sensitive areas, instead of the annual temporal restrictions applied under the EU CFP for the Baltic Sea fisheries.