



## Baltic Marine Environment Protection Commission

Working Group on the State of the Environment and Nature  
Conservation

Riga, Latvia, 21-25 October 2019

STATE & CONSERVATION  
11-2019

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<b>Document title</b>	MPA Pressure Guidelines – Proposal for relisting of pressures
<b>Code</b>	3N-1 rev.1
<b>Category</b>	DEC
<b>Agenda Item</b>	3N– Development and implementation of Recommendations
<b>Submission date</b>	28.10.2019
<b>Submitted by</b>	Finland
<b>Reference</b>	

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This document contains the list of pressures for MPA Pressure Guidelines as revised by STATE & CONSERVATION 11-2019.

### Background

The latest draft Guidelines for MPA Pressure Evaluation was discussed at State and Conservation 10-2019 and TG MPA 12-2019. Based on these discussion Finland has proposed a more concise listing of pressures, which would make the guidelines easier to handle, as well as simplify the MPA Database.

Below is presented the proposed listing by Finland with added comments from TG MPA 12-2019. In general at TG MPA 12-2019, there was an agreement on the proposed listing

The work on the guidelines will continue after an agreement has been found on either a new pressure listing or on the listing remaining the same.

### Action requested

The Meeting is invited to discuss and agree on the proposed relisting of pressures.

## Combining of pressure classes for MPA pressure evaluation – draft proposal 25.9.2019

Referring to the extra meeting of TG MPA (MPA TG 10E-2019):

1.6. The Meeting considered some of the pressures listed in the database (and the document) that are in fact activities, and agreed to try to link these activities under proper pressures, in line with the division of activities to pressures used in HELCOM for HOLASII and the Baltic Sea Action Plan update. As an example, input of water will be moved under ‘Changes in hydrological conditions’.

Finland has made a proposal of combining different pressure classes from the previous draft, in order to streamline the listing with e.g. the classification used in Holas2, as well as combining classes which are actually activities, under appropriate pressure. Some pressures have been proposed to be removed all together.

### Proposed classification and arguments in support

In the table below we presented a proposal for the new pressure listing. The new pressure listing is based on Holas2 and combining of classes from the previous draft. New classes are also listed in the end of the document. The table also includes some arguments in support of our proposals.

New proposed class	Current classes	HOLAS 2 classification	Arguments	
Eutrophication	-Input of nutrients and organic matter	Eutrophication		<b>Commented [A1]:</b> The new classes will be cross referenced with the Habitats/Bird Directives pressure listings and relevant pressures will listed under corresponding pressure class in the guidelines.
Contaminants	-Input of contaminants -Introduction of microbial pathogens	Hazardous substances	<i>Microbial pathogens can be seen as contaminants affecting the health of other species.</i>	<b>Commented [A2]:</b> The current classes will included into the guidelines for reference.
Marine litter	Input of litter	Marine litter		
Underwater sound	-Input of sound -Input of electromagnetic and seismic waves	Underwater sound	<i>According to the knowledge today, electromagnetic waves seem to have a minor effect on the marine ecosystem (Ref1 Ref2). Seismic waves from e.g. explosion can be seen as impulsive sound and can be merged under underwater sound.</i>	<b>Commented [A3]:</b> Finland was proposing to exclude input of electromagnetic waves all together, but Germany proposed to have it included as a separate pressure. Germany will provide comments on this topic during S&C-11. <b>Field Code Changed</b> <b>Field Code Changed</b>
Non-indigenous or genetically modified species	-Introduction of genetically modified species	Non-indigenous species	<i>These species might have a similar effect on the ecosystem as NIS, if</i>	<b>Commented [A4]:</b> Germany and Sweden commented that these to should be evaluated separately.

	-Introduction or spread of non-indigenous species		they e.g. outcompete or interbreed with native species (Ref3).
Disturbance or mortality of species	-Extraction of, or mortality/injury to, species -Disturbance of species -Translocation of (native) species -Input of light	Species removal by fishing and hunting	The Holas2 pressure did not include disturbance of species, only extraction. Disturbance should be included as it might have locally a significant effect on some species.
Loss of seabed	-Change of seabed substrate or morphology -Extraction of seabed or subsoil	Seabed loss and disturbance	We propose to assess loss and disturbance separately. In Holas2 the pressures are grouped under this title, but they are assessed separately (Fig 1).
Disturbance to seabed	-Disturbance or damage to seabed	Seabed loss and disturbance	We propose to remove the "or damage" part from this pressure, in order to make distinguishable from change of seabed substrate (aka physical loss).
Changes of hydrological conditions	-Input of water -Extraction of water -Change in water temperature		Change in water temperature can be seen as an effect of Input of water. Also sealing/damming of bays, can lead to changes in temperature. Not in Holas2.

Field Code Changed

Commented [A5]: Suggested by Finland to add by-catch under this pressure.

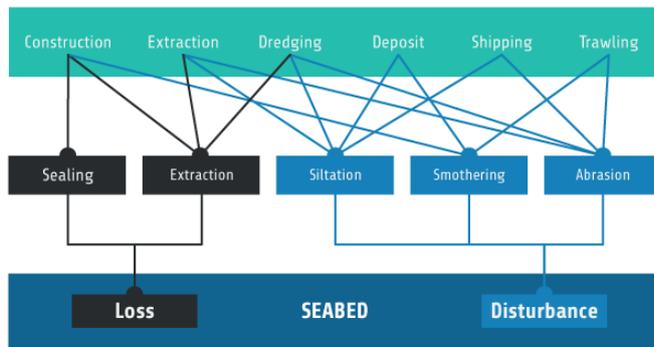


Fig 1. Loss and disturbance to seabed, with associated activities. From State of the Baltic Sea report (Holas2 work).

Pressures/activities to be removed

The following pressures/activities are proposed to be removed all together.

**Cultivation/artificialisation of natural habitat**

*This is an activity, not a pressure. This activity can cause several of the above-mentioned pressures (e.g. changes in hydrological conditions, loss of seabed etc).*

**Input of CO2**

*This activity was considered to be too broad scaled, to be seen as something meaningfully assessed for individual MPAs.*

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Final listing of pressures

1. Eutrophication
2. Contaminants
3. Marine litter

4. Input of energy

4.1 Underwater noise

4.1.1 Continuous noise

4.1.2 Impulsive noise

4.2 Seismic waves

4.3 Electromagnetic waves, including light

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5. Introduction of species

5.1 Introduction of non-indigenous species

5.2 Introduction of genetically modified species

5.3 Introduction of pathogens

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6. Disturbance or mortality of species

6.1 Disturbance of species by human activities

6.2 Human induced mortality of species including incidental by-catch

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7. Loss and disturbance to, seabed

7.1 Loss of seabed

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[7.2](#)Disturbance to seabed

9. Changes of hydrological conditions

Include:

- [Acidification](#)
- [Changes in salinity](#)
- [Changes in sea-level](#)

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