

Continued development of HELCOM indicators: Lists of Lead/co-Lead countries, appointed experts, and members of relevant HELCOM expert groups, networks and projects, 2015-11-17

This document is thematically organized and includes updates from Denmark, Estonia, Finland, Germany Latvia, Lithuania, Poland and Sweden as of 2015-11-17 including:

- Information on Lead countries, co-lead countries and appointed national experts to develop HELCOM indicators
- Contacts lists for HELCOM expert groups, projects and networks as listed in this Annex.

Please submit further information and updates to the Secretariat (ullali.zweifel@helcom.fi).

Contact Lists of HELCOM Expert Groups/Project relevant for indicator work

Contents

Mammals.....	3
Mammals indicators.....	3
Contacts of the SEAL Expert Group.....	3
Birds.....	5
Bird indicators.....	5
Nominations for ICES/OSPAR/HELCOM JWG Birds.....	5
Coastal Fish.....	6
Coastal fish indicators.....	6
Contacts of FISH-PRO II Project (2013-2018).....	6
Pelagic habitats – zooplankton.....	8
Zooplankton indicators.....	8
Contacts of the proposed ZEN ZIIM project.....	8
Pelagic habitats – phytoplankton.....	9
Phytoplankton indicators.....	9
Contacts of the Phytoplankton expert group (PEG).....	9
Benthic habitats.....	11
Indicators of benthic communities and habitats.....	11
Contacts of the Intersessional network on benthic habitats.....	11
Eutrophication.....	13
Input of nutrients.....	13
Hazardous substances.....	14
Hazardous substances indicators.....	14
HELCOM Expert Network on hazardous substances.....	15
Radioactive substances.....	17
Radioactive substances indicators.....	17
Contacts of the MORS Expert Group.....	17
Oil pollution.....	18
Oil pollution indicator.....	18
Contacts of the IWGAS Group.....	18
Marine litter.....	19
Marine Litter indicators.....	19
HELCOM Expert Network on Marine Litter.....	19
Underwater noise.....	21
Underwater noise indicators.....	21
HELCOM Expert Network on Underwater Noise.....	21
Additional indicators.....	22
i.e. indicators that are not linked to previously listed experts groups/networks/projects.....	22

Mammals

Mammals indicators

Core indicators	Lead Country	LC representative	Co-Lead Country	CLC representative
Distribution of Baltic seals	Finland	Markus Ahola	Denmark	Anders Galatius, Jonas Teilmann
			Sweden	Tero Härkönen, Olle Karlsson, Karl Lundström
Population trends and abundance of seals	Sweden	Tero Härkönen Olle Karlsson, Karl Lundström	Denmark	Anders Galatius, Jonas Teilmann
	Finland	Markus Ahola		
Nutritional status of marine mammals	Sweden	Tero Härkönen, Karin Hårding, Charlotta Moraeus, Britt-Marie Bäcklin, Karl Lundström	Finland	Kaarina Kauhala
Reproductive status of marine mammals	Sweden	Tero Härkönen, Karin Hårding, Charlotta Moraeus, Britt-Marie Bäcklin, Karl Lundström	Finland	Kaarina Kauhala

Candidate indicator	Lead Country	LC representative	Co-Lead Country	CLC representative
Harbour porpoise distribution and abundance			Denmark Finland Germany	Anders Galatius Penina Blankett Ursula Siebert/Andrea Fais

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Birds

Bird indicators

Core indicators	Lead Country	LC representative	Co-Lead Country	CLC representative
Abundance of waterbirds in the breeding season	Germany	Volker Dierschke	Finland Sweden	Jukka Rintala Leif Nilsson, Fredrik Haas
Abundance of waterbirds in the wintering season	Germany	Volker Dierschke	Finland Sweden	Markku Mikkola-Roos Leif Nilsson, Fredrik Haas

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Coastal Fish

Coastal fish indicators

Core indicators	Lead Country	LC representative	Co-Lead Country	CLC representative
Abundance of coastal fish key functional groups	Sweden	Jens Olsson	Finland	Antti Lappalainen
Abundance of key coastal fish species	Sweden	Jens Olsson	Finland	Antti Lappalainen

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Pelagic habitats – zooplankton

Zooplankton indicators

Core indicators	Lead Country	LC representative	Co-Lead Country	CLC representative
Zooplankton mean size and total stock	Sweden	Elena Gorokhova	Finland Latvia Estonia	Maiju Lehtiniemi Solvita Strake Aarno Põllumäe

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Pelagic habitats – phytoplankton

Phytoplankton indicators

Pre-core indicators	Lead Country	LC representative	Co-Lead Country	CLC representative
Seasonal succession of functional phytoplankton groups	Estonia	Andres Jaanus	Finland	Harri Kuosa Sirpa Lehtinen Iveta Jurgensone Marie Johanssen
			Latvia Sweden	
Diatoms/ dinoflagellates index			Estonia	Andres Jaanus Harri Kuosa Sirpa Lehtinen Norbert Wasmund Iveta Jurgensone Janina Kownacka Marie Johanssen
			Finland	
			Germany	
			Latvia	
			Poland Sweden	

Candidate indicators	Lead Country	LC representative	Co-Lead Country	CLC representative
Phytoplankton species assemblage clusters based on environmental factors			Finland	Harri Kuosa Sirpa Lehtinen Iveta Jurgensone Marie Johanssen
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Benthic habitats

Indicators of benthic communities and habitats

Core indicators	Lead Country	LC representative	Co-Lead Country	CLC representative
Population structure of long-lived macrozoobenthic species			Finland Germany	Samuli Korpinen Henrik Nygård Alexander Darr Michael Zettler
State of the soft-bottom macrofauna community			Estonia Finland Germany Sweden	Kristjan Herkul Henrik Nygård Alexander Darr Mats Blomqvist

Pre-core indicators	Lead Country	LC representative	Co-Lead Country	CLC representative
Cumulative impact on benthic biotopes			Estonia Finland Germany Latvia Lithuania	Kristjan Herkul, Georg Martin Samuli Korpinen , Aarno Kotilainen Thorsten Berg Alexander Darr Juris Aigars Darius Daunys
Distribution, pattern and extent of benthic biotopes	Estonia	Georg Martin, Kristjan Herkul	Finland Germany Latvia Lithuania Sweden	Samuli Korpinen Alexanader Darr Juris Aigars Darius Daunys Antonia Nyström Sandman, Nicklas Wijkmark
Lower depth limit distribution of the macrophyte community			Estonia Finland Germany Latvia Sweden	Kaire Torn, Georg Martin Samuli Korpinen Kolja Beisiegel Juris Aigars Mats Blomqvist

Candidate indicators	Lead Country	LC representative	Co-Lead Country	CLC representative
Biomass ratio of opportunistic and perennial macroalgae	Estonia	Georg Martin		

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Eutrophication

Five core indicators and associated GES boundaries were agreed at HOD 39-2012, namely dissolved inorganic nitrogen, dissolved inorganic phosphorus, chlorophyll a, secchi depth and oxygen debt.

The development of eutrophication indicators does not follow a lead-country approach but is currently taken forward through the EUTRO-OPER project (2014-2015) that is developing four additional eutrophication indicators. These indicators are listed below and were considered by State and Conservation 2-2015. It is proposed to establish an intersessional network of eutrophication experts to continue remaining work after the end of the EUTRO-OPER project (to be considered by State and Conservation 3-2015).

Pre-core indicators	EUTRO-OPER experts
Total nitrogen concentration	Wera Leujak, DE Günther Nausch, DE Vivi Fleming-Lehtinen, Secretariat
Total phosphorous concentration	Wera Leujak, DE Günther Nausch, DE Vivi Fleming-Lehtinen, Secretariat
Cyanobacterial surface accumulations	Saku Anttila, FI
Phytoplankton spring bloom intensity based on chl-a	Jenni Attila, FI

Input of nutrients

The indicator on progress towards fulfilling Maximum Allowable Inputs for nitrogen and phosphorus is available [at the HELCOM web-site](#) and a proposal for operationalization of the indicator is contained in document 3.3 to HOD 48-2015.

Core indicators	Experts
Inputs of nitrogen and phosphorous to the sub-basins	RedCore DG (Lars Svendsen, DCE Denmark, Bo Gustafsson, BNI Sweden, and the Secretariat) Ricardas Paskauskas (LT)

Hazardous substances

Hazardous substances indicators

Core indicators	Lead Country	LC representative	Co-Lead Country	CLC representatives
Hexabromocyclododecane (HBCDD)			Finland Sweden	Jaakko Mannio Sara Danielsson
Metals	Poland	Tamara Zalewska	Denmark Finland Sweden	Martin M Larsen Harri Kankaanpää Sara Danielsson
Polybrominated biphenyl ethers (PBDE)			Finland Sweden	Jaakko Mannio Sara Danielsson
Perfluorooctane sulphonate (PFOS)			Finland Sweden	Jaakko Mannio Sara Danielsson
Polycyclic aromatic hydrocarbons (PAH) and their metabolites	Germany	Ulrike Kammann	Finland Sweden	Harri Kankaanpää Sara Danielsson
Polychlorinated biphenyls (PCB) and dioxins and furans			Finland Sweden	Jaakko Mannio Sara Danielsson
TBT and imposex	Sweden (tentatively)		Denmark Finland	Jakob Strand Jaakko Mannio
White-tailed eagle productivity	Sweden	Björn Helander, Peter Hellström	Finland	Toni Laaksonen

Pre-core indicators	Lead Country	LC representative	Co-Lead Country	CLC representative
Acetylcholinesterase inhibition				
Diclofenac concentration			Denmark Finland	Jakob Strand Kari Lehtonen
Estrogenic-like chemicals and effects	Sweden	Niklas Hansson	Denmark Finland	Jakob Strand Kari Lehtonen
Lysosomal membrane stability (LMS)			Denmark Finland	Jakob Strand Kari Lehtonen
Reproductive disorders: Malformed eelpout and amphipod embryos			Denmark Finland Sweden (on amphipod embryos)	Jakob Strand Kari Lehtonen, Brita Sundelin
Fish Disease Index (no work done in CORESET II)			Denmark Finland	Jakob Strand Kari Lehtonen
			Denmark	Jakob Strand

Micronucleus test (no work done in CORESET II)		Finland	Kari Lehtonen
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Candidate indicators	Lead Country	LC representative	Co-Lead Country	CLC representative
EROD activity	Sweden	Niklas Hansson		

HELCOM Expert Network on hazardous substances

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Radioactive substances

Radioactive substances indicators

Core indicators	Lead Country	LC representative	Co-Lead Country	CLC representative
Radioactive substances: Cesium-137 in fish and surface waters	Poland	Tamara Zalewska	Finland	Meerit Kämäräinen

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Oil pollution

Oil pollution indicator

Core indicators	Lead			
Oil-spills affecting the marine environment	IWGAS			

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Marine litter

Marine Litter indicators

Pre-core indicators	Lead Country	LC representative	Co-Lead Country	CLC representative
Beach litter	Poland	Włodzimierz Krzyminski	Denmark Sweden	Jakob Strand Per Nilsson, Eva Blidberg

Candidate indicators	Lead Country	LC representative	Co-Lead Country	CLC representative
Litter on the seafloor			Denmark Sweden	Jakob Strand Per Nilsson
Microlitter in the watercolumn	Finland (preliminary)	Outi Setälä	Denmark Germany	Jakob Strand Elke Fischer

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Underwater noise

Underwater noise indicators

Pre-core indicators	Lead Country	LC representative	Co-Lead Country	CLC representative
Continuous low frequency anthropogenic sound	Poland	Zygmunt Klusek	Denmark Finland Germany Sweden	Jakob Tougaard Jukka Pajala Jens Fisher Peter Sigray, Mathias Andersson

Candidate indicators	Lead Country	LC representative	Co-Lead Country	CLC representative
Distribution in time and space of loud low- and mid-frequency impulsive sounds	<i>German lead indicated at Pressure 3-2015</i>		Denmark Finland Germany	Jakob Tougaard Jukka Pajala Jens Fischer

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Additional indicators

i.e. indicators that are not linked to previously listed experts groups/networks/projects.

Core indicators	Lead Country	LC representative	Co-Lead Country	CLC representative	Working arrangements
Abundance of salmon spawners and smolt	Finland	Tapani Pakarinen, Atso Romakkaniemi			Taken forward under FISH WG <i>Note: When operational, the indicator is proposed to be updated in cooperation with ICES WGBAST</i>
Abundance of sea trout spawners and parr	Finland	Tapani Pakarinen			Taken forward under FISH WG <i>Note: When operational, the indicator is proposed to be updated in cooperation with ICES WGBAST</i>
Number of drowned mammals and waterbirds in fishing gear	Germany	Sven Koschinski Volker Dierschke	Poland	Tomasz Linkowski (tomasz.linkowski@mir.gdynia.pl)	Taken forward under FISH Group and State & Conservation WG (e.g. target development)" (ullali.zweifel@helcom.fi)
Proportion of large fish in the community	Sweden	Michele Casini, Håkan Wennhage	Germany Finland	Christian Pusch Thurid Otto Antti Lappalainen	Taken forward under FISH WG <i>Note: When operational, the indicator is proposed to be updated in cooperation with ICES WG BFIFS. Elaboration of data flows will take place through BalticBOOST.</i>
Trends in arrival of new non-indigenous species	Finland	Maiju Lehtiniemi	Germany Latvia Sweden	David Johannes Christian Buschbaum Kai Hoppe Solvita Strake Ann-Britt Florin	Proposed to be taken forward under TG BALLAST

Candidate indicators	Lead Country	LC representative	Co-Lead Country	CLC representative	Working arrangements
Maximum length fish in the pelagic community	Sweden	Michele Casini (SE)			Taken forward under FISH WG