



Baltic Marine Environment Protection Commission

Ad hoc Seal Expert Group
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SEAL 9-2015, 8-3-Rev.1

Document title	Overview of bycatch knowledge and activities in the Contracting Parties
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Reference	Outcome of SEAL 8-2014, para 6.7

Background

This document contains an overview of bycatch knowledge and activities in different countries and working groups, updated by SEAL 9-2015.

HELCOM SEAL bycatch overview

Outline suggestion Dec. 2015.

This document contains three tables to be discussed and, as far as possible, filled in by the HELCOM SEAL members during the meeting in Berlin (Dec 2015). Representatives from all countries and working groups below have been invited to add information to this overview and, if considered relevant, forward the inquiry to other representatives. Although HELCOM SEAL is focusing on seals also other species (mammals, birds) could be included in the tables since this information may benefit the collaboration between different working groups and activities, and widen this overview. Information was been filled in for some countries and working groups before the HELCOM SEAL meeting 2015, and HELCOM SEAL members were asked to add their knowledge during the meeting (Dec. 2 2015).

Table 1. Bycatch activities in different countries. If relevant, include finished activities/projects as well as ongoing and future. Add more rows if needed (e.g. if several projects exist).

Country	Current state of knowledge/outcome/data sources/references/www	Activity/project (purpose, species etc.)	Start of activity	End of activity	Possible actions to obtain further information/future initiatives	Comments/additional information
Denmark						
	DTU Aqua Finn Larsen (fl@aqua.dtu.dk) Lotte Kindt-Larsen (lol@aqua.dtu.dk) www.aqua.dtu.dk	REM systems onboard fishing vessels to monitor bycatch of marine mammals and seabirds.				Includes a number of different pilot studies since 2009. Coverage is ICES SD 21-25.
	DTU Aqua Finn Larsen (fl@aqua.dtu.dk) Lotte Kindt-Larsen (lol@aqua.dtu.dk) www.aqua.dtu.dk	Several studies of bycatch mitigation of harbour porpoises				Mostly published but also unpublished results.
	DTU Aqua Finn Larsen (fl@aqua.dtu.dk) Lotte Kindt-Larsen (lol@aqua.dtu.dk) www.aqua.dtu.dk	Developing and testing cod pots as an alternative to gillnets	2014	2016		In collaboration with SLU (Sweden)
Estonia	No ongoing projects. Fishermen are obliged to fill in all bycaught animals, but nothing is reported. Information from Markus Vetemaa (markus.vetemaa@ut.ee) Reference: Vanhatalo et al. 2014					
Finland	Fishermen are obliged to report bycatch under the new fisheries legislation. Reference: Vanhatalo et al. 2014					
Germany	Data from stranding network ITAW (Ursula Siebert, Ursula.Siebert@tiho-hannover.de) and German Oceanographic Museum (Michael Dähne, Michael.Daehne@meeresmuseum.de).					

	Cetacean bycatch reporting required by law in the federal state of Schleswig-Holstein, not Mecklenburg-Vorpommern and not in EEZ. Information from Sven Koschinski (sk@meereszoologie.de)					
Germany	NABU and Federal Agency for Nature Conservation. Kim.Detloff@NABU.de Sven Koschinski (sk@meereszoologie.de)	Testing of alternative fishing gear: automated longlines and jigging reels.	2013	2015	A follow-up project will be planned.	
Germany	Ostsee Infocenter Eckernförde info@ostseeinfocenter.de	Schleswig-Holstein: Voluntary harbour porpoise bycatch reporting and anonymous carcass delivery.	Operational from 2015			
Germany	Thünen Institute christopher.zimmermann@ti.bund.de	Camera monitoring project regarding bird bycatch (Rügen area)	2011	2012 ?		
Germany	Thünen Institute & Boris Culik https://www.ti.bund.de/de/of/projekte/fischerei-umwelt-ostsee/schweinswale-retten-deutsche-fischer-im-wettbewerb-staerken/ christopher.zimmermann@ti.bund.de	Fisheries test of Porpoise Alerting Devices (PAL).	2012	2017		Report bycatch in the nets.
Latvia	Limited knowledge. Fishermen are obliged to fill in all bycaught animals, but nothing is reported. Data from coastal fishermen questionnaire, as well as from some coastal fishermen (who has contracts with Institute BIOR) logbooks. Information from Didzis Ustups (Didzis.Ustups@bior.lv)					

Latvia	Didzis.Ustups@bior.lv	Coastal fishermen questionnaire to estimate seal damage in the coastal fishery.	2014	2014	The questionnaire will be repeated in 2016, after discussions with coastal fishermen organization.	In 2014 fishermen activity was on low level. Does the questionnaire include bycatch information?
Lithuania						
Poland	Voluntary based stranding network (mammals, birds), WWF and University of Gdansk. Fishermen are obliged to report bycatch under the new fisheries legislation. Iwona Pawliczka (iwona.pvp@ug.edu.pl).					
Sweden	<p>Bycatch estimates from 1996, 2001 and 2013 available.</p> <p>Ongoing development of seal-safe fishing gear to reduce both seal damage and bycatch.</p> <p>Bycaught porpoises are required to be reported by law. Fisherman can add information about bycatch of seals in their logbooks (EU logbook; monthly coastal logbook) on a voluntary basis. However, bycatch reports are generally low.</p> <p>Bycaught seals (voluntarily reporting) and porpoises (reporting required by law) are also reported to the Swedish Museum of Natural History and about 80 seals/year are collected, see document SEAL 9-2015, 8-1-Rev.1. (charlotta.moraesus@nrm.se)</p> <p>References: Lunneryd & Westerberg 1997; Lunneryd et al. 2004; Vanhatalo et al. 2014; Österblom 2002.</p>					
Sweden	Swedish University of Agricultural Sciences (SLU) Development of alternative fishing-gear. sara.konigson@slu.se sven-gunnar.lunneryd@slu.se	Fishing-gear that could be an alternative to gill nets in fisheries for cod, pike perch, herring and vendance: pots, pontoon traps and seine nets.	2010(?)	ongoing		If alternatives are found, fishermen can get subsidized to start using new fishing gear.
Sweden	Swedish University of Agricultural Sciences (SLU)	A pinger, not audible to seals, that will deter	2015	ongoing		

	Development of pinger sara.konigson@slu.se sven-gunnar.lunneryd@slu.se	porpoises from fishing gear (nets) without attracting seals.				
Sweden	Swedish University of Agricultural Sciences (SLU) Use of pingers. sara.konigson@slu.se sven-gunnar.lunneryd@slu.se	Fishermen are using pingers on a voluntary basis. Southern Sweden.	2015	2016		Pingers are handed out as a loan.
Sweden	Bycatch of seals in ghost nets. olle.karlsson@nrm.se	Student project. Estimation of number of seals bycaught in ghost nets.				
Russia	Only a few seals reported annually.					

Table 2. Bycatch activities in different working groups. A table similar to table 1, but focusing on working groups that address (more or less) bycatch issues.

Working group	Current state of knowledge/outcome/data sources/references/www	Activity (species, projects etc.)	HELCOM SEAL group contact participating?	Comments/additional information
HELCOM FISH (ecosystem-based sustainable fisheries)	http://helcom.fi/helcom-at-work/groups/fish-group		Penina Blankett	
HELCOM Core Indicator Number of drowned mammals and waterbirds in fishing gear	Indicator to be further developed http://www.helcom.fi/Pages/Indicators.aspx?&&p_SortBehavior=0&&PageFirstRow=1&&View={C06BB0A3-E7B9-4712-BB96-3EB4CB79938E}			Data needs are identified, targets are needed for birds and seals, target for harbour porpoises to be further developed Indicator can only become operational when we have a functioning monitoring. Information from Sven Koschinski (sk@meereszoologie.de)
ICES Working Group on Bycatch of Protected Species (WGBYC)	http://www.ices.dk/community/groups/Pages/WGBYC.aspx		Finn Larsen, Krzysztof Skora	
ICES Working Group on Marine Mammal Ecology (WGMME)	http://www.ices.dk/community/groups/Pages/WGMME.aspx		Anders Galatius Ivar Jüssi Mart Jüssi Iwona Pawliczka Ursula Siebert Krzysztof Skora	
Joint ICES/HELCOM/OSPAR	http://www.ices.dk/community/groups/Pages/WGBIRD.aspx			

Working Group on Seabirds (JWGBIRD)				
ASCOBANS	http://www.ascobans.org/en/species/threats/bycatch			
ASCOBANS Jastarnia Group	http://www.ascobans.org/es/workinggroup/jastarnia-group	Small cetaceans	Penina Blankett Finn Larsen, Krzysztof Skora	
ASCOBANS bycatch group	http://www.ascobans.org/en/working_group/bycatch	Small cetaceans		
ASCOBANS North Sea Working group	http://www.ascobans.org/en/meeting/NSG4	Small cetaceans		
ASCOBANS REM Workshop	Report from meeting coming up	Small cetaceans	Penina Blankett	
ASCOBANS Expert Workshop on the Requirements of Legislation to Address Monitoring and Mitigation of Small Cetacean Bycatch	http://www.ascobans.org/en/meeting/expert-workshop-requirements-legislation-address-monitoring-and-mitigation-small-cetacean	Small cetaceans	Finn Larsen	
ASCOBANS Workshop on the Further Development of Management Procedures for Defining the Threshold of 'Unacceptable Interactions' - Part I: Developing a Shared	http://www.ascobans.org/en/meeting/WS-Unacceptable-Interactions-Part-I	Small cetaceans	Finn Larsen	

Understanding on the Use of Thresholds / Environmental Limits				
ASCOBANS recommendation sent to the Commission	http://www.ascobans.org/sites/default/files/basic_page_documents/ASCOBANS_Recommendations_EUBycatchLegislation_Final.pdf			

Table 3. Planned projects.

Project title	Contact information	Activity	Comments
MAMBO project (DK, FI, SE, PL)	Sven Koschinski (sk@meereszoologie.de) Ida.Carlen@aquabiota.se	Application stage	EU LIFE application (harbour porpoise). In the project a GIS based bycatch risk model is to be developed, bycatch reduction teams (fishermen, scientists, nature conservationists) are to be formed to initiate mitigation projects.
Birdlife International	Sven Koschinski (sk@meereszoologie.de) Rory Crawford (rory.crawford@rspb.org.uk)	Planned	Mitigation project for birds (gillnet modifications) in Lithuania?
Mare Baltica project (EE, LV, LT, PL, FI, D, SE)	Sven Koschinski (sk@meereszoologie.de) Mindaugas Dagys (dagys@ekoi.lt)	Application stage	LIFE+ application (birds) Bycatch assessment & bycatch reduction (also in collaboration with MAMBO)
DCF	Suggested to report bycatch		
Assessing bycatch of marine mammals and seabirds in Danish gillnet fisheries	Finn Larsen (fl@aqua.dtu.dk)	Application stage	Bycatch assessment, aetiology and mitigation for marine mammals and seabirds in Danish gill net fisheries.

Needs

- Systematic monitoring of bycatch
- Meta database of available bycatch data? What kind of data is available and where can it be found?
- More collaboration and information exchange between working groups
- Do we need a HELCOM SEAL bycatch sub group?

Relevant publications (more to be added)

Lunneryd S-G & Westerberg H (1997) By-catch of, and gear damages by, grey seal (*Halichoerus grypus*) in Swedish waters. ICES CM 1997/Q: 11 ICES Annual Science Conference, Baltimore, USA: 10 pp.

Based on interviews with Swedish fishermen in 1997, 392 grey seals were estimated to have drowned in fishing gear in the Baltic Sea in 1996

Lunneryd, S. G., S. Königson, and N. B. Sjöberg. 2004. Bifångst av säl, tumlare och fåglar i det svenska yrkesfisket. (By-catch of seals, harbour porpoises and birds in Swedish commercial fisheries). Finfo (Fiskeriverket informerar) 8:20 pp. In Swedish with English summary.

Between 360-757 grey seals, 34-70 ringed seals and 333-506 harbour seals were drowned in fishing gears in the in the Swedish commercial fishery in the Baltic Sea (grey and ringed seal) and in the Kattegat-Skagerrak (harbour seal) in 2001, based on interviews with Swedish fishermen in 2002.

Vanhatalo, J., M. Vetemaa, A. Herrero, T. Aho, and R. Tiilikainen. 2014. By-Catch of Grey Seals (*Halichoerus grypus*) in Baltic Fisheries-A Bayesian Analysis of Interview Survey. PLoS ONE 9.

Between 2180 and 2380 grey seals drowned in commercial fishing gear annually in the Baltic Sea, based on interviews with Swedish, Finnish and Estonian fishermen 2012-2013.

Österblom, H. 2002. Bifångster i fiskeredskap av fågel, säl och tumlare i Östersjön. Naturhistoriska riksmuseet, Stockholm. 26 pp. In Swedish.

Data from logbooks and reports to the Swedish Museum of Natural History 1996-2002.

SEAL 9-2015, 2-2; FISH 3-2015, 2-3 (Proposals for actions still needed on selective extraction and incidental by-catch of species)

A proposal for actions that have been identified as needed within HELCOM as regards the topic 'selective extraction and incidental by-catch of species'.

- Adjustment or utilization of EU data collection framework to retrieve data for assessments and the development of management measures related to by-catch of species.
- Testing alternative fishing gears/fishing techniques to minimize by-catch through joint project/projects.

SEAL 9-2015, 8-1-Rev.1 (Registered mortality of seals 2008-2014)

Contains the registered mortality numbers for Baltic seals from years 2008 to 2013 (Sweden 2008-2014).

SEAL 9-2015, 7-1 (Reporting gaps in the HELCOM-ASCOBANS harbour porpoise database)