

## Background document, BSAC Workshop – v3

### Cormorants and Seals in the Baltic Sea: Balancing Fisheries and the Environment

Friday 27th October, 09:00-15:30, at the National Marine Fisheries Research Institute in Gdynia, Poland and online via Zoom.

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#### 1. Preparation of the workshop

The BSAC decided to add a workshop on seals and cormorants to its work programme for 2023-2023. Already in March 2023, members were asked for input at the BSAC Demersal Working Group<sup>1</sup>. On this basis, the secretariat established a draft workshop proposal. The Management Team discussed the practicalities and programme proposed and tabled it to the BALTFISH Presidency in spring 2023.

In July-August 2023, ICES, HELCOM, the European Commission, researchers from the national fisheries institutes around the Baltic, Member States representatives, and BSAC Members were contacted and invited to take the floor at the workshop.

The first draft agenda was shared in early September and an updated version was published 2 weeks before the workshop.

#### **This first workshop aims to look at :**

- *The legal rules and management measures related to seals and cormorants*
- *The status and monitoring of the populations of seals and cormorants*
- *How do seals and cormorants interact with fisheries?*

Another workshop is foreseen in 2024 to give more time for the BSAC members to take the floor and draft a recommendation on the topic.

<sup>1</sup> See pages 4-7 <https://www.bsac.dk/wp-content/uploads/2023/08/BSACDemersalWG17032023reportfinal.pdf>

## 2. Previous work undertaken in BSAC, BALTFISH and HELCOM

**BSAC EBW WG discussed the matter several times in 2017-2019** without agreeing on a concerted way forward, views are diverse and many questions pending:

- *We need to address seals and cormorants in the context of ecosystem approach.*
- *What is a Good Environmental Status and the carrying capacity level for the populations?*
- *Currently very hard for fisheries to co-exist with seals in some areas.*
- *How should seals be managed?*
- *Is there enough funding to monitor the seal population?*
- *Difficult choices should be based on science: Member States and EU bodies must act.*

In 2018, BSAC discussed seal-fish interactions and the organisation of future workshops on the topic. The BSAC also agreed on a [letter to the Commission proposing an amendment to the Regulation \(EC\) 1007/2009 on trade in seal products](#): After a WTO ruling in the EC, the Commission adopted a new Commission Implementing Regulation (EU) 2015/1850. The amendments to the EU seal trade ban make it illegal to make commercial use of seals derived from hunts conducted for the sustainable management of marine resources.

Furthermore, [BSAC recommended a HELCOM BALTFISH WORKSHOP](#) to look at (1) Practical solutions and knowledge available, (2) Management options, (3) Seal population status and environmental interactions

In March 2019, [BALTFISH organised a symposium on interactions between seals, fish and fisheries in the Baltic Sea](#). The conclusions of the symposium is that there is a need for regional collaboration around locally adapted solutions. The elaboration of a joint BALTFISH, HELCOM and BSAC toolbox for suitable measures to mitigate the seals-fisheries conflict was proposed. Along with a BALTFISH review of management options available within existing legal frameworks.

In June 2019, [HELCOM organised a workshop on the topic](#). HELCOM has been actively working on the conservation and management of cormorants and seals<sup>2</sup> in the Baltic Sea, as part of its wider efforts to protect the biodiversity of the region. **Conclusions were that the workshop:**

- *Recognized that seal populations in general have been increasing in the Baltic, but the situation varies between sub-regions*
- *Abundance data is available, but spatial and temporal distribution is not as well known*
- *Ecosystem approach needs to be considered, it is not viable to only focus on seals*
- *Seal-fisheries interactions are a serious issue, but reasons and solutions thereto challenging to identify objectively*
- *Possible need to revise HELCOM Recommendation 27-28/2 on conservation of seals*
- *BSAP calls for ecosystem-based management approach, but not yet accomplished.*
- *Involvement from all stakeholders and concrete steps are needed*

Finally, in 2022, the BSAC [discussed again the management of seals](#) in the Baltic. Updated scientific information<sup>3</sup> on seal populations, as well as the updates on [seal management measures from Member States were presented](#). The latest updates on research on seal worms that infect cod were also given. [The TNC project](#) on the impacts of seals and cormorants experienced by Baltic Sea commercial fisheries was also presented.

<sup>2</sup> <https://www.helcom.fi/wp-content/uploads/2019/06/Rec-27-28-2.pdf>

<sup>3</sup> <https://www.bsac.dk/wp-content/uploads/2023/08/BSAC-Svend-Gunnar-Lunneryd.pdf>;

[https://www.bsac.dk/wp-content/uploads/2023/08/BSAC-March-8th-Jane-Behrens-DTU-Aqua\\_final-1.pdf](https://www.bsac.dk/wp-content/uploads/2023/08/BSAC-March-8th-Jane-Behrens-DTU-Aqua_final-1.pdf)

### **3. Presentation of the speakers and experts**

*By order of the workshop agenda*

**Anne Delvaux**, Policy Officer in DG Environment, at the European Commission, for the implementation of the EU Regulation on Trade in Seal Products and the Seal Pups Directive.

**Alice Belin** is a policy officer in the European Commission, DG Environment, working on the implementation of the Marine Strategy Framework Directive. In the team, she is responsible for overseeing issues related to the protection and restoration of marine biodiversity in European waters. She chairs the EU Technical Group on Seafloor Integrity and Seabed Habitats which provides support and guidance to Member States for the assessment of good environmental status of EU seabed habitats. Together with colleagues from the Joint Research Center, she currently provides support to Member States for the development of threshold values for maximum bycatch rates of different marine species. She works in close coordination with colleagues responsible for the implementation of the Nature Directives, the Biodiversity Strategy and fisheries-related legislation

**Vedran Nikolic** coordinates marine conservation work in the Nature Conservation Unit of the European Commission's DG Environment. This includes the implementation of the Birds and Habitats Directives in the marine environment and the marine targets in the recent policy initiatives such as the EU Biodiversity Strategy for 2030 and the proposal for EU Nature Restoration Law.

**Florent Nicolas** works at the HELCOM Secretariat as an Associate Professional Secretary. He supports the work of several HELCOM bodies (Working Groups and Expert Groups), the HELCOM Expert Group on Marine Mammals is one of them. He will be giving a presentation about the HELCOM work and the related actions to marine mammals and birds deriving the Baltic Sea Action Plan and other policy background information.

**Katarzyna Kamińska**, chief expert, The Fisheries Department, Ministry of Agriculture and Rural Development, Poland. Involved in the work on interactions between nature conservation and fisheries since 2008, concentrating efforts mostly on marine mammals, including involvement in the work of the HELCOM EG MAMA group and ASCOBANS. In order to discuss and deal with seals' fisheries conflict I was responsible, for organizing two national conferences on this issue and also international HELCOM workshops on seals-fisheries interactions, together with the HELCOM Secretariat (27.06.2019, Copenhagen, Denmark). I am also responsible, together with the representative from the Polish Ministry of Climate and Environment, for coordination of work of the special national Team to deal with conflicts between fisheries and aquaculture and protected species of birds and marine mammals.

**Elo Rasmann** is working for the Estonian Ministry of Regional Affairs and Agriculture in the Fishery Resources department. It is her responsibility to ensure that surveys on fisheries are conducted in Baltic Sea area and proposed scientific advice would end up in management decisions making. She is also involved in shaping management decisions on environmental issues influencing fish stock statuses – including cormorants and seals.

**Norbert Häubner** works at the Swedish Agency for Marine and Water Management with coordinating biodiversity within Marine Strategy Framework Directive. He is coordinating even Sweden biodiversity work within HELCOM. Since 2023, he is one of two Swedish representatives within the Joint Special Group Action Plan Fishing.

**Gildas Glemarec**, is a researcher at DTU Aqua and studies the interactions between fisheries and protected, endangered, and threatened species (PETS), following a PhD where he investigated the bycatch of seabirds in Danish commercial gillnet fisheries, using data from electronic monitoring (EM) systems, and developed seabird bycatch mitigation methods. He works on modelling PET species bycatch high-risk areas and explored ways to combine information from positional data (AIS, VMS, and EM data) to enhance knowledge of fishing effort distribution in small-scale fisheries (SSF). He also participated in several EU-funded research projects and in international workshops, working groups, and consultancies about interactions between PETS and fisheries and on the use of ET in SSF for ICES, HELCOM, OSPAR, IWC, the European Commission (STECF), and the EU Parliament.

**Maria Ovegård** is an environmental assessment specialist in the Institute of Marine Research at the Swedish University of Agricultural Sciences (SLU). Her PhD focused on the interaction between cormorants and wild fish populations. Her current research interests include predator-prey interactions and behaviour.

**Thomas Bregnballe** is a Senior Scientist at Aarhus University. He has worked with population ecology of cormorants. In collaboration with colleagues from other countries, he collates information about the development of the breeding populations of cormorants around the Baltic Sea.

**Niels Jepsen** has been working with biology and behaviour of freshwater and migratory fish at DTU Aqua since 1995. These studies naturally led to a focus on predation and the effect of the very abundant cormorant on migrating salmon and trout-smolts. Since 2002, also coastal fish populations were studied using CodedWireTags, Pellet analyses and radio-telemetry. The results showed substantial impact from cormorant predation on flounder, eels and salmonids in coastal areas. In 2022, a small project on cod and cormorant predation was carried out and the results from this will also be presented here.

**Tyrell DeWeber** is the group leader for inland fisheries research at the Potsdam Institute of Inland Fisheries. His expertise lies in modelling and decision analysis to help support applied fisheries management. Past research has focused on climate change effects on fish, environmental flow management for endangered species, and population responses to fisheries harvest and environmental changes. He is new to the world of cormorant predation on fish, and is looking forward to learning and expanding his expertise through a new project focused on cormorants and cod.

**Mats Westerborn** has done Baltic Sea research on species distributions, mostly related to hard bottom ecosystems and climate change. He is now working at the Natural Resources Institute Finland, with questions related to Cormorants and their effects on fisheries and aquaculture.

**Magdalena Podolska** – her main research subjects are nematodes belonging to the Anisakidae family, parasitising marine organisms. Their presence in fish poses a risk to the health of consumers as well as a problem for fishermen and processors. Her research includes, among others: analysis of the dynamic of parasitic infections, assessment of the impact of infection on the condition of fish and interactions in the host-parasite system.

**Kurt Buchmann** MSc, PhD, DVSc was educated at the University of Copenhagen (Marine Parasitology 1983) with focus on parasites in Baltic fishes. He worked at the technological Laboratory 1984-1985 (DTU) with focus on biological factors affecting Baltic cod quality. His

PhD from the University of Copenhagen 1986-1989 focused on fish health and parasite control. During his postdoc and later as associate professor he worked on fish health and fish immunology in relation to ecological factors in fresh and marine waters. From 2000-2023 he has been professor at the University of Copenhagen (Aquatic Pathobiology) with focus on diseases in aquatic animals in general.

**Karin Hårding** is a professor in animal ecology at U Gothenburg, Sweden. She has worked with the ecology and population dynamics of harbour, grey and ringed seals for 30 years. Homepage: <https://www.gu.se/en/about/find-staff/karinharding>

**Markus Ahola**, Senior Curator at the Swedish Museum of Natural History, is responsible on population monitoring of ringed seals, grey seals and harbour seals in Sweden. As Swedish delegate in HELCOM EG MAMA he is also working with monitoring the seal populations at the whole Baltic Sea level.

**Katarzyna Nadolna - Ałtyn** is working in National Marine Fisheries Research Institute in Gdynia (Poland) in Department of Fisheries Resources, where she is responsible for assessment of salmon and sea trout in Polish marine waters. She is a member of ICES WGBAST since 2014. Her research interests include the role of marine mammals in Baltic Sea ecosystem in many aspects (predation, food competition, dispersion of parasites etc.) as well as interactions between marine mammals and fisheries.

**Sven-Gunnar Lunneryd** is a researcher based at The Department of Aquatic Resources (SLU Aqua) at Swedish University of Agriculture Science, which is the leading University in Sweden on fisheries science and fishing gear technology. Sven-Gunnar's main research area is marine mammal and fisheries interactions, working with fishing gear development for small-scale fisheries with focus on sustainable and seal-safe fishing gear. This work includes developing new fishing gear and trying them out in collaboration with commercial fisheries, studying the behaviour of marine mammals and fish in relation to fishing gear and the effects of increasing seal populations on fish and fisheries.

**Sara Königson** is a researcher based at The Department of Aquatic Resources (SLU Aqua) at Swedish University of Agriculture Science, which is the leading University in Sweden on fisheries science and fishing gear technology. Sara's main research area is marine mammal and fisheries interactions, working with fishing gear development for small-scale fisheries with focus on sustainable and seal-safe fishing gear. This work includes developing new fishing gear and trying them out in collaboration with commercial fisheries as well as studying the behaviour of marine mammals and fish in relation to fishing gear. Development of selective fishing gear and mitigations methods to decrease catches of non-target species such as marine mammals and birds is also an area of interest. Sara Königson is also an expert involved in many working groups such as ICES working group on bycatch of **protected species**.

**Staffan Waldo** is associate professor in economics at the Swedish University of Agricultural Science (SLU). Staffan's research area is economic analyses of Swedish and European fisheries policies.

**Jan Kappel** is the Secretary General for the European Anglers Alliance. The European Anglers Alliance (EAA) is a pan-European organisation for recreational angling. It represents 10 angling associations from 10 European countries, and is the voice of 25 million European recreational anglers. Jan will be presenting common views shared by all recreational fishing organisations within the BSAC.

**Jacek Kowalczyk** is the President of the Wolin Fishermen's Association / Wolińskie Stowarzyszenie Rybaków. The association was established in 2008. It currently associates over 110 members; shipowners, fishermen, supporting members who operate in the following ports: Stepnica, Wolin, Lubin, Świnoujście, Międzyzdroje, Karsibór, Przytór, Dziwnów, Niechorze, Mrzeżyno and Rewal. Website: <http://iwsr.pl/o-nas/>

**Marc Eskelund** is the political advisor in FSK-PO working with fisheries management on a national and international level using his background as an official in the danish ministry of fisheries, the foreign ministry and other fisheries-related interest groups and consultancy. He has degrees in economics, biology and finished my studies as a civil engineer in fisheries science from DTU Aqua.

**Justyna Zajchowska** is a Marine Conservation Senior Specialist in WWF Poland and Fisheries Lead in WWF Baltic Ecoregion Programme. She is also consultant to other environmental non-governmental organisations. She works on fisheries policy; sustainable fisheries; responsible seafood consumption; inclusive marine conservation and marine spatial conservation. She is currently a member of the Pelagic AC and used to work closely in BSAC for 3 years 2016-2019. More info on WWF Poland (in Polish): <https://www.wwf.pl/o-nas/nasza-wizja>

**Nils Höglund** has been chair of the BSAC ecosystem working group since it was created in 2017. He's from the eNGO organisation Coalition Clean Baltic (CCB), which has been a member of the BSAC since the very start: 2006. Nils educational background is in political sciences and environmental law. He brings many years of experience in environmental work, and has dealt with specific issues, such as: climate change, environmental education, aquaculture, marine and fisheries policies issues.

#### **4. Update on the management systems in Baltic Member States**

In 2022, the BSAC secretariat had compiled information on management systems for seals in the different Baltic Member States. In the run-up to the workshop, Member States representatives were asked to update the information sent and complete it with some explanations on cormorants.

##### **A. Denmark – updated in September 2023**

###### ***Seals***

Grey seals (*Halichoerus grypus*) and harbour seals (*Phoca vitulina*) are protected under the Habitats Directive (HD) annex II and V. Derogation shooting is permitted cf. Article 16, “provided that there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range. Member States may derogate from the provisions of Articles 12, 13, 14 and 15 (a) and (b)

.... (b) to prevent serious damage, in particular to crops, livestock, forests, fisheries and water and other types of property...”

Grey seals around Bornholm mainly target the fishery of cod (*Gadus morhua*) and salmon (*Salmo salar*), thus derogation shooting has been permitted cf. Article 16 litra (b).

Termination of derogation shooting permission around Bornholm, was though effectuated upon the European Council Regulation 2022/109 of 27 January 2022. The regulation reduced fishing opportunities of e.g. cod and salmon in ICES area 24 and 25 and resulted in a quota exclusively for by-catches. No direct fisheries are permitted under this quota. It is assessed by the Danish EPA that as a result of the restricted quotas, the conditions for granting exemptions (serious damage to fisheries) are no longer present.

There is a commercial flatfish fishery around Bornholm, and in order to evaluate whether seals caused damage in this type of fishery, a scientific study conducted by the Danish Technical University Aqua (DTU Aqua), initiated by the Danish EPA, was studying the scale of grey seal gillnet predation in the remaining commercial flatfish fishery around Bornholm.

The report was published in 2022 and pointed towards very little damage caused by seals in the flatfish fishery. 4-6 % of the flatfish were damaged or taken from the nets. The report (in Danish only) can be found on the EPA webpage<sup>4</sup>.

Thus, it is the legal assessment by the Danish EPA, that damaged caused by seals in the flatfish fishery do not meet the condition for granting exemptions for derogation shooting of seals around Bornholm.

It is the assessment of the Danish EPA that derogation shooting of grey seals is applicable in the remaining waters, however outside designated Natura 2000 areas.

The latest management plan for seals is from 2020 and can be found online<sup>5</sup> (in Danish only). The purpose of the plan is to balance the protection of seals on one hand and managing the rising level of conflicts caused by a growing population of seals.

###### ***Cormorants***

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<sup>4</sup> <https://mst.dk/nyheder/2023/februar/saeler-foretraekker-torsk-fremfor-fladfisk>

<sup>5</sup> <https://edit.mst.dk/media/413ewlsj/forvaltningsplan-for-saeler-2020.pdf>.

Cormorants are protected under the directive on the conservation of wild birds, via article 1. The cormorant's natural behaviour of foraging upon fish, sometimes leads to issues with fisheries and fish populations in Danish waters. Derogation shooting of cormorants can therefore be permitted, provided that there is no satisfactory alternative, which means that attempts to scare off the birds, or similar tactics for relocation, must have proven insufficient before you apply for a permit for derogation shooting.

A permit can be granted in a specific situation or area, if the cormorant poses a threat to fisheries or fish populations.

If you are a recreational fisher or have fishing as a primary or secondary income, you can apply for a permit within a radius of 1 km of your actively fishing nets (fixed gillnets or fyke).

If you are the landowner or caretaker of a property or a local organisation that organises fishing interest, you can apply for a permit for derogation shooting in order to protect fish populations in different scenarios.

An example:

In coastal areas, which are designated as important for fishing and fish populations, owners or caretakers of adjacent areas can apply for a permit on their property or local organizations can apply for a permit on the fishing territory.

The permits have terms and conditions such as times of year the shooting can take place, methods and tools. These conditions may vary from location to location due to other legislation on nature protection and considerations for wildlife such as Natura 2000- areas or wildlife reserves.

In order to perform the shooting involved in the regulation, you have to be a licensed hunter, if you do not have a license, you can cooperate with a hunter who does.

The breeding population of cormorants have been steady over the last 10 years. The number of permits issued is steadily increasing.

Last year a new adaptive management plan was launched, which was developed between the environmental agency and nationwide organizations with interests in birds as well as fish and fisheries. As described in the plan oiling of eggs in a number of breeding colonies placed close to areas where cormorants can pose a risk to fish and fisheries are carried out by the Danish Nature Agency.

A couple of projects to estimate the effect of derogation shooting was also launched, the results are expected within the next couple of years.

## B. Estonia

A representative of the Estonian Ministry will present the management system in place during the workshop.

### *Seals*

- Management plan for grey seal was adopted in 2014 and is still valid.
- Management plan for ringed seal was adopted in 2015 and is also valid. Ringed seal population is well protected, population size is very small.
- Hunting for grey seal is allowed since 2015. Hunting conditions are revised this year.
- Hunting quota for grey seal- 1% population:

	quota	Hunted seals no. of sp
2015	53	10
2016	42	10



2017	45	8
2018	37	19
2019	<b>58</b>	<b>20</b>
2020	<b>50</b>	<b>19</b>
2021	<b>55</b>	

- Hunting period 15 April- 31 December;
- Hunting from watercrafts with engine is not allowed;
- Special requirement for weapons and bullets;
- Licenced hunters with training.

The low number of hunted animals could be due to poor hunting conditions. Also, a large area of western part of Estonian waters (Väinameri) is closed for hunting; this is also reviewed this year.

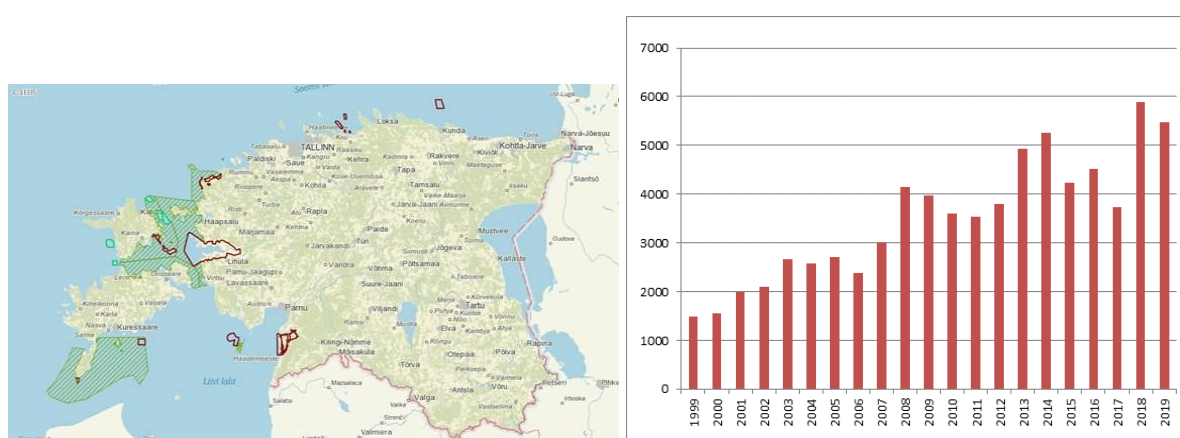


Figure 1 (left). In shaded/striped and otherwise marked areas seal hunting is not allowed. Figure 2 (right). Counted grey seals in Estonia 1999 – 2019. In 2020, 5159 sp.

- Population growth over 3 times from 1500 sp in 1999 to 5159 sp in 2020;
- Population is in a good and sustainable level.
- Ecosystem approach is needed, seal impact to other species should be considered as well (e.g. cod, salmonids);
- Hunting have had no negative impact to population growth. It could potentially balance negative impact to fish resources and fishing;
- Seal hunting is part of cultural heritage, needs to be respected and revived. It has not only been the part of lifestyle of indigenous people. It has also been part of our ancestors;
- Small scale trade should be allowed:
  - Avoid treating seal carcass as garbage - waste of resources;
  - Compensation of hunting expenses;
  - Economical value – local communities handicraft, hunting tourism;
- The seal trade ban is a real artificial barrier and nuisance, avoiding normal and natural coastal lifestyle!

### C. Finland – updated in September 2023

#### Seals

The Baltic grey and ringed seals are considered game species in Finland, and are thus under the responsibility of the Finnish Ministry of Agriculture and Forestry. A management plan for seals has been in place since 2007 and it is currently being updated. The objective of the plan

is to maintain a favourable status for the grey seal population and to reach it for the ringed seal population as well as to reconcile the preconditions for the fishing industry with the conservation of seal populations. The Government of Åland has the responsibility for the management of seal populations in the autonomous Åland Islands.

In Mainland Finland a quota of 1 050 grey seals apply for the hunting year 1.8.2022 – 31.7.2023. For ringed seals the quota is 375 seals. These quota levels have been applied for some years. In the newly ended hunting year 335 grey seals and 317 ringed seals were hunted. Hunting of grey seals has been allowed since 1998 and of ringed seals since 2015. The grey seal hunting quota in Åland is set at approx. 500 seals. In 2021 a total of 207 seals were hunted.

Seals cause significant damage to fishing gear and catches and aquaculture operations, and have been doing that since the start of the new millennium. Extensive innovation work and investments in seal-safe fishing gear and acoustic deterrents have been undertaken for many years with the aim of reducing the damage. Mobile acoustic deterrents have lately shown to be promising in reducing the damage to catches. They have also been applied to form seal free areas in coastal bays and to hinder seals from entering into rivers with spawning salmonids. Finland grants EMFAF investment aid for acquiring such deterrents.

Fishers also receive compensations for the damage seals cause to the catches and there is a special support scheme for the elimination and landing of grey seal males that are close to fishing gear and aquaculture facilities.

#### *Cormorants*

Essentially, Finland does not have an open hunt, but permits are needed and are difficult to obtain. The new government is planning to open up for cormorant hunting. The Åland islands has a quota of 3000 also for cormorants, in 2021 1645 were shot.

#### D. Germany – updated in September 2023

In Germany, the competence for the management of predators lies with the regions (*Länder*) and not on the federal level. The two regions bordering the German Baltic Sea coast are Schleswig-Holstein (west) and Mecklenburg-West Pomerania (east).

#### *Seals:*

There are no seal management plans regulating the seal stocks yet.

In the region of Schleswig-Holstein, no action has been taken so far in this regard. The region of Mecklenburg-West Pomerania has taken some first steps towards a management plan. As grey seal stocks are increasing, fishermen are struggling more and more to cope with the damages caused on passive gear and fykes. In the months with most catches (October-April), in some coastal areas in Mecklenburg-West Pomerania, this leads to a general reduction of fishing effort in the gillnet fishery. For this reason, the region has established a reporting system for fisheries damages caused by grey seals. Since 2020, the region pays compensation for damage to fisheries caused by grey seals and harbor seals. The funds come from EMFF / EMFAF.

The region of Mecklenburg-West Pomerania has also established an Advisory Council “Conflict Management Grey Seals and Fisheries”. Members of this AC are the Ministry of Agriculture of Mecklenburg-Pomerania, the relevant nature conservation and fisheries

authorities, stakeholders and scientists. The Advisory Council outlined the key points of a possible future seal management plan.

It has been decided that the preparation and the implementation of the management plan, which is going to be financed through the EMFAF, should preferably be assigned to an impartial institution. Due to the need for further coordination, the call for tender is planned for the first half of 2024.

#### *Cormorant:*

On the coastline of Mecklenburg-West Pomerania, in 2022 around 9.500 cormorant breeding pairs were recorded at 12 colonies. The region has not yet developed a cormorant management plan.

Schleswig-Holstein is currently funding a relatively large research project in the next 3 to 4 years, aiming at analysing the food composition of cormorants at various coastal sites. Sites in Denmark and Mecklenburg-West Pomerania are also included. Attempts will be made to include the data in the modelling of western cod, as there is a suspicion that predation has not been sufficiently taken into account in the model so far.

The cormorant breeding population in Schleswig-Holstein is stable, but there is a very high feeding pressure on fish populations during spring and autumn at Baltic Sea resting sites due to rising numbers of migratory birds. There is no cormorant management in place.

#### E. Latvia

##### *Seals*

There has been an existing seal management plan since 18.02.2021 (“Management plan concerning Ringed seal *Phoca hispida*, Grey seal *Halichoerus grypus* and Harbor seal *Pusa vitulina*”). Available online at <https://www.daba.gov.lv/lv/sugu-un-biotopu-aizsardzibas-plani> (in Latvian only). Since none of the seal species bred in the territory of Latvia, the plan only deals with the animals that come into territorial waters to feed. According to the plan, all occurrences of by catch of marine mammals must be reported and special permits must be procured from the authorities for the disposal of the body of the animal (if it was found dead or too injured to survive).

#### F. Lithuania - updated in September 2023

##### *Seals*

Lithuania at the moment does not plan to have a management plan for marine mammals, however national regulations are in accordance with general management principles:

**Conservation.** Grey seals are protected under Lithuanian law (no categories) and listed as DD (data deficiency) under IUCN red list categorization in Lithuania. No stable local breeding seal population, no stable breeding/ non-breeding haul-out groups visible as well. However, resting grey seals can be observed on breakwater rocks near main Klaipeda harbour, other seal species can be observed only very rarely. No hunting is allowed at the moment with no intentions to legalize it in the future.

Baltic sea animal rehabilitation centre (BSARC) began operating in late Autumn, 2022. 16 rehabilitated pups were tagged and released during summer month this year. One seal was already found by-caught on Estonian coast.

**Monitoring of stranded individuals.** Every year we register 60-80 stranded grey seals on Lithuanian coast (2022 – 74, 2023 – 84 grey seals). The majority of dead carcasses are found in May-June. There is no functioning stranded marine mammal monitoring network working in Lithuania, however monitoring activities should begin in 2023. BSARC will be a key centre to perform pathological studies on stranded marine mammals in the future.

**Fisheries.** Since 2016 fishermen receive lumpsum compensations for their losses due to grey seal activity next to their fishing gear and in return they have to report seal sightings and damage in their fishing logbooks. However, the compensation scheme is under revision and will be updated in 2024, with the aim to compensate fishing management actions.

G. Poland

A representative of the Polish Ministry will present the management system in place during the workshop.

H. Sweden

A representative of the Swedish agency will present the management system in place during the workshop.

## 5. Additional background information: scientific studies, past meetings, etc

All presenters and contacted researchers have been invited to submit additional literature and reference to research projects for the participants. These are either available online or upon request to the secretariat.

### Cormorants

- Wardecki Ł., Chodkiewicz T., Beuch S., Smyk B., Sikora A., Neubauer G., Meissner W., Marchowski D., Wylegała P., Chylarecki P. (2021). Monitoring Ptaków Polski w latach 2018–2021. *Biuletyn Monitoringu Przyrody* 22: 1–80.

Breeding population – see page 30 „Monitoring Kormorana” with 28751, 29289 and 28007 breeding pairs in years 2018, 2019 and 2020 respectively. See also figure B.13 for longer dataset.

- The [Baltic Sea Seal and Cormorant TNC project](#). (concluded in 2021)
- [EU Parliament Hearing on Cormorants](#) (11-05-22).

### Seals

- Harding, K. C., & Tero J. Härkönen. (1999). Development in the Baltic Grey Seal (*Halichoerus grypus*) and Ringed Seal (*Phoca hispida*) Populations during the 20th Century. *Ambio*, 28(7), 619–627. <http://www.jstor.org/stable/4314968>
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