

## **BSAC Sub-group on ecosystem based management**

**3<sup>rd</sup> October 2017**

**Axelborg**

**Axeltorv 3, 1609 Copenhagen V**

### **Report (except salmon)**

#### **1. Welcome by the chair of the meeting Nils Höglund**

**Nils Höglund, Chair of the sub-group on ecosystem based management** welcomed all the participants of the sub-group to Copenhagen. He drew attention to the two main agenda items: discussions on seals and on the latest version of the draft BALTFISH salmon multiannual plan. He thanked all those who had responded to a questionnaire on seals sent out before the meeting to facilitate these discussions.<sup>1</sup>

#### **2. Formalities for the start of the meeting Apologies and adoption of the agenda**

**The BSAC Secretary** informed that the apologies are attached to the list of participants (on website).<sup>2</sup> The agenda was adopted without changes.

She asked participants to respect deadlines to register for meetings. She thanked Marcin Ruciński, Low Impact Fishers of Europe, for offering to do a whispering interpretation for the Polish small scale fisheries representatives, including the members of LIFE.

#### **2. Seals:**

**Anders Galatius, PhD, Senior scientist, Biologist, Department of Bioscience, Aarhus University, Section for Marine Mammal Research. Presentation of the status of seal population in the Baltic Sea.**

**Peter Ljungberg, PhD, Research assistant, Department of Aquatic resources, Institute of coastal research, Swedish University of Agricultural Sciences: with information on new datasets regarding hidden damage from seal in the Baltic cod fisheries.**

**The Chair of the sub-group** reminded participants that the sub-group had had open and frank discussions on seals during its first meeting in March 2017. **The sub-group** had different views on seal management, but agreed that the scale of the interactions between seals and fisheries, including the status of the population, the targets as well as the mitigation measures should be further addressed.

He referred to the questions sent to the participants prior to the meeting to collect information, focusing on their perspective and region.

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<sup>1</sup> Contributions received from BSAC members were sent separately to the meeting participants

<sup>2</sup> Link to the meeting here: <http://www.bsac.dk/Meetings/BSAC-meetings/Executive-Committee-and-sub-group-on-ecosystem-bas>

The aim of this is to move forward to develop a proper BSAC advice or requests, mapped around the Baltic, instead of making it a pan-Baltic issue. It is not pan-Baltic and solutions are, as usual, different according to different parts of the Baltic. Measures taken in some Member States, if effective, should perhaps be exported to other Member States, and so on.

**Anders Galatius, PhD, Senior scientist, Biologist, Department of Bioscience, Aarhus University, Section for Marine Mammal Research** presented<sup>3</sup> the work on monitoring and management of seals by HELCOM. The HELCOM Seal Group was established in 2007. Its tasks, among others, are to develop and carry out monitoring programmes, to assess the population structure, size and growth, reproduction and distribution of seals as well as fisheries interactions, to quantify the Limit Reference Level (LRL) and Target Reference Level (TRL), and to develop non-lethal mitigation measures to reduce by-catch and damage to fishing gears. HELCOM Seal is not making actual decisions. It is purely an advisory group. All HELCOM decisions are taken at political level. The HELCOM targets for seal population, based on LRL (safe biological limit) in the Baltic are set at 10,000 individuals in all units. No allowances for deliberate killing should be issued for units with a population below LRL. The goals of HELCOM seal population are linked to the objectives of the Marine Strategy Framework Directive (MSFD) and the Habitats Directive (HD). Assessment scales differ between national assessments based on the provisions of the HD and ecologically relevant scale based on the MSFD, which defines the LRL as the population abundance not adversely affected due to anthropogenic pressures. HD assessments have a historical perspective, while the MSFD focuses on ecosystem component viability. Anders Galatius presented the trends in the abundance of the seal populations (ringed, harbour and grey seal) in different parts of the Baltic based on the provisions of the HD and the MSFD. In 2016, the grey seal population was estimated at 30,100 individuals. The population has achieved the MSFD good environmental status (GES). The historical abundance (1900) was 80,000 – 100,000. The populations of ringed and harbour seals are below GES. Referring to the diet, he stated that seals are opportunists and therefore cover their needs with as little effort as possible. Seals generally eat smaller fish than those targeted by fisheries. Therefore, the impact on fish stocks is relatively smaller than fishing. Prey species include, among others, herring, cod, sprat, salmon and flatfish. There is little common ground in HELCOM with respect to management measures. Some countries advocate hunting, others are in favour of non-lethal measures. Targeted removal could potentially provide some relief. Non-lethal measures include seal-safe gears, compensations and adaptations by fisheries.

Responding to the question from **an OIG representative**, Anders Galatius noted that climate change may have a negative impact, in particular on grey seals and ringed seals, which have a much lower breeding success on land than on ice. Harbour seals are less impacted by poor ice conditions.

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<sup>3</sup> Presentations: <http://www.bsac.dk/Meetings/BSAC-meetings/Executive-Committee-and-sub-group-on-ecosystem-bas>

**Another OIG representative** asked about the relationship between grey seals and herring in the Bothnian Sea: both have been increasing hand in hand. Anders Galatius replied that the grey seal could be feeding on predators of herring.

**A fisheries representative** stated that even if seal target small fish, the impact on the fish stocks is considerable, as these small fish will never become part of the spawning stock biomass. He underlined that the impact of seal predation on some fish species, for example cod is very high. Grey seals compete with the fishing industry. Measures to minimise this negative impact must be implemented. **A representative of the anglers** commented that the number of seals hunted is small and the permitted quotas are never reached.

**Another fisheries representative** noted that the seal population in the Vistula river mouth has grown rapidly in recent years and has a severe impact on salmon and trout stocks in this area. The restocking programme has failed completely due to the seal predation on the salmon and sea trout returning to the river. He referred to the fact that before the Second World War, seals were considered as a pest and hunting for seals was rewarded.

**The Chair** commented that the main problem for the sea trout and salmon is the upstream conditions that are far from favourable in the River Vistula.

**A scientist** referred to the fact that recent studies had confirmed that cod is the most prominent food item for seals in the southwestern Baltic and that the grey seals eat fish of the same size or even larger than those taken by the fishery.

**Anders Galatius** stated that salmon and sea trout have survived under a much higher seal population in the past. Some fish populations such as herring may even grow under an increasing seal population if seals help to remove their main predator. In general, grey seals target a larger prey than other seal species.

**Peter Ljungberg, PhD, Research assistant, Department of Aquatic resources, Institute of coastal research, Swedish University of Agricultural Sciences<sup>4</sup>** presented work being done on the development of seal proof gear. He referred to the fact that all seal populations (grey, harbour and ringed) in Sweden have been steadily increasing. There is an urgent need to reduce the seal-fisheries conflict in the Swedish coastal fishery. Alternative gear should be developed. He presented the FORMAS project on the hidden damage in coastal fisheries, conducted in 2016-2018. It is obvious that seals can also take catch from the gears without much sign; cod simply disappears from the nets. A comparison of the fisheries and grey seal impact was conducted on the basis of data collected from logbooks. The costs of seal damage are currently being evaluated. The project is being conducted simultaneously in Karlshamn and Ystad. Alternative gears, such as pontoon traps, pots and seine nets are tested to assess the level of damage caused by seals. Gear development is essential to provide a future for the coastal fishery

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<sup>4</sup> Presentations: <http://www.bsac.dk/Meetings/BSAC-meetings/Executive-Committee-and-sub-group-on-ecosystem-bas>

and should be done in co-operation with fishermen. He noted that gillnets are abandoned by some fishermen due to their exposure to potential damage caused by seals.

**A fisheries representative** noted that pontoon traps have proved to be effective in the Swedish coastal fishery, but are extremely expensive. **Another fisheries representative** commented that the problem is political, in that seals are affecting the static gears, which are used by small scale fishermen. The coastal seine referred to by Peter Ljungberg is being tried out, but it is not a static gear.

**A small scale fishery representative** praised the research work being done and added that seals learn very fast how to get their prey in the fishing nets. They may also scare away fish from the fishing grounds. Effective measures to mitigate the damage should be taken without delay. She also asked about the selectivity of alternative gears with respect to undersized fish.

**An OIG representative** asked what fishing gears had been used in the past, also in other regions outside the Baltic to avoid damage by seals.

**Peter Ljungberg** noted that the scaring effect of seals on fish should be studied. He agreed that seals learn fast about existing fishing gears. He also noted that while hunting scares away seals from the fishing grounds, it is uneconomic (time consuming). He stated that seines were the most popular gear used to avoid seal damage in the past. He further noted that the Baltic Sea seems to be the region with the most significant interactions between seals and fisheries. It is therefore difficult to draw from the experience gathered in other seas. Referring to selectivity, he stated that alternative gears are equipped with a selection panel to minimise by-catches of undersized fish and also that fish caught in traps and pots are alive and can be released. Some by-catch might be a problem in the seines.

**Fisheries representatives** referred to the parasite seal worm causing parasite infections in fish. They also noted that gun shots could be used to scare seals from the fishing grounds. The question of pingers or other devices to scare the seals was also raised.

**A small scale fisheries representative also** referred to high-power pingers which could scare the seals and act as a deterrent measure. He underlined that the work to develop new gears must be done together with the fishermen.

**Peter Ljungberg** noted that some pingers alert the seals to the presence of fish and act as a dinner bell. He agreed that any seal deterrent measures should be developed in close co-operation with fishermen.

**A scientist** from DTU Aqua referred to a number of studies on seal parasites, among others an article by Kurt Buchmann about the discussion on cod worms in the Baltic.<sup>5</sup>

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<sup>5</sup> Emerging *Pseudoterranova decipiens* (Krabbe, 1878) problems in Baltic cod, *Gadus morhua* L., associated with grey seal colonization of spawning grounds, K. Buchmann and P. Kania, Department of Veterinary Disease Biology, Faculty of Health and Medical Sciences, University of Copenhagen, Frederiksberg C., Denmark. Report sent to the participants of the sub-group during the meeting.

**Another fisheries representative** noted that the seal populations in the Baltic will continue to grow, because their growth is dependent on the availability of the prey. Any measures such as seal proof gears or deterrent devices will only decrease seal damages if combined with measures aimed at decreasing the existing population.

**An OIG representative** referred to compensation for seal and cormorant damages, already in place in some Baltic Member States. Funds for such compensation should also be secured post- European Maritime and Fisheries Fund (EMFF). In addition, insurance systems should be developed, co-operation of all stakeholders in working groups about seals should be continued and resources for monitoring and research should be safeguarded. **Another OIG representative** called for the use of compensation and seal proof gears. He noted that in Finland seal damage has decreased from approximately 1 million EUR in 2007 to 400,000 EUR in 2010-2015. Moreover, the grey seal population has not increased in the past ten years.

**A fisheries representative** stated that the seal damage has decreased in Finland due to the decreased number of coastal fishermen. He also noted that hunting is not socially acceptable and will not solve the problem. The main goal of hunting should be to change the behaviour of seals.

**A small scale fisheries representative** noted that the grey seal population started to increase rapidly after the introduction of special protection measures. He questioned the fact that the present abundance is compared to the historical one, in the 19<sup>th</sup> century. According to him, the current carrying capacity of the ecosystem should be taken into account when setting the limit population level.

**A representative of the Polish government** stated that in the Polish waters the problem of interactions between seals and fishermen is rather new (taking into account the last 50 years) and is caused by the growing seal population in the Baltic Sea and their migration to the southern part of the sea. Seals, mostly grey seals, are now causing local damage in the small scale fishery, especially around the Gulf of Gdansk (there is one permanent haul out site in the Vistula river mouth).

Polish fishermen will receive compensation for damage in catches caused by sea mammals. Support from the EMFF is in preparation. Fishermen have to report the damage caused by seals to the fisheries inspectors who verify the damage. There was a Conference on 6th-7th June 2017 in Gdynia, organised especially to discuss seal damage.

Scientific expertise may give knowledge about alternative fishing gears which may help to solve the problem of damage caused by seals. The compensation system should be continued in the next financial period. Seals could become a tourist attraction. Local people, including fishermen may become beneficiaries of such a business.

**A fisheries representative** informed that seals are now a problem for fishermen in Lithuania. A compensation system for seal damage is available to the fishermen. She noted that there are other measures to mitigate seal damage in coastal fishery.

**The Chair** concluded by saying that there is clear recognition that the main problem facing the Baltic is from the grey seal population. The population seems to almost have met the conservation targets all over the Baltic and that is good news. The seals are protected by EU law, and there are different directives in place. However, with respect to ecosystem based management some difficult choices have to be made. He elicited from the participants concrete measures that can be put forward to solve the problem.

**The sub-group agreed on the following:**

1. A need for continuation of and money in research and science in collaboration with fishers to develop new gears that are seal safe.
2. Compensatory measures alleviate the problem to a limited extent and for that we need funding e.g. from the EMFF. This has to be a clear message to send to the Commission.
3. Efforts made to improve seal stocks could be suspended in some areas where seals are already abundant. This could be by means of a non-lethal method. Such work is already taking place in some areas where seals are already abundant [examples].
4. Hunting is not the realistic answer and it is difficult to put this forward as a solution. Hunting can perhaps be used, but not as the solution. For example, we can look further into whether this has a scaring effect on seals and whether this can be put forward as a concrete solution.

**The Chair** added that he will continue to compile suggestions and he invited everyone to contribute.

#### **4. Salmon**

**Development of BSAC draft recommendations for multiannual management of Baltic salmon. Presentation of the latest version of the BALTFISH salmon multiannual plan by Heikki Lehtinen, Ministry of Agriculture and Forestry, Finland [reported separately]**

#### **5. Clean Nordic Oceans:**

**Brief presentation by Finn Larsen, DTU Aqua, National Institute of Aquatic Resources, Denmark of a new project funded by the Nordic Council of Ministers to clean up the Nordic Oceans of recreational and commercial fishing gear (confirmed)**

**Finn Larsen, DTU Aqua** presented a a three year project (2017-2019) funded by the Nordic Council of Ministers, with the working title: “A knowledge- and communication network between the Nordic countries in order to reduce the consequences of ghost fishing, littering of the oceans and promote increased recycling from both commercial and recreational fishing”. The goal of the project is to establish a network to exchange knowledge and experience regarding existing methods and measures to reduce the effects of ghost fishing, littering of the ocean and to promote increased recycling from both commercial and recreational fishing.

**The Chair** drew attention to the fact that the recreational fishermen are also responsible for the problem of ghost nets. A great number of lost fishing lines could have a huge potential impact on the ecosystem.



**Finn Larsen** noted that ghost nets coming from recreational fishery are also part of the project.

**The BSAC Secretary** thanked Finn Larsen for his presentation and informed him that it is up to the ExCom to declare support for the project and to decide on placing the project logo on the BSAC website.

## 6. AOB

### • Questionnaire on alternative fishing gears<sup>6</sup> or fishing techniques/Paweł Łazarski, Ministry of Maritime Economy and Inland Navigation, Poland

**Paweł Łazarski** informed the meeting about the HELCOM BALTFIMPA project, by which HELCOM initiated its work on the alternative fishing gears. One aim of the project was to create a list of alternative fishing gears or fishing techniques to minimise the effects on ecosystems. The project ended in 2013. Poland had been nominated lead country to continue and coordinate efforts aimed at preparing the list. Paweł Łazarski informed of the work done so far. He asked the BSAC to provide information on tests of alternative fishing gears, if available, and to discuss if there could be a permanent cooperation between HELCOM FISH and BSAC on this issue.

There was not sufficient time to deal with this at the meeting. **A fisheries representative** did not think it was the responsibility of HELCOM to work on this and proposed to bring it up in November at the BSAC workshop on selectivity.

**The Chair** commented that such a compilation was needed since there are various projects starting to up deal with this. HELCOM was not taking ownership of this exercise.

It was agreed to refer this to the ExCom meeting on 7<sup>th</sup> November 2017.

**A small scale fisheries representative** commented that because of seals, he feared there will be no small scale fishermen left in five years. **Another fisheries representative** agreed that despite the discussions on seal safe gear, no real measures were being taken.

**The Chair** commented that to have a fishery in the future, there is a need to give thought to this. A recommendation on seals was work in progress.

### • Future focus areas

**The Chair** proposed, in addition to continuing work on today's subjects, to deal with marine protected areas and to have a discussion on a look to the future and what kind of fishery we want for the Baltic: what is the future Baltic fishery.

### • Dates of next meeting/s

No decision was taken on a date for the next meeting.

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**The “homework” on seals:**

Sent to the WG members are contributions received from:

Association of Fisheries Protection (Fischereischutzverband)

Association of Fishermen's of Sea- PO

Darłowska Group of Fish Producers and Shipowners

Federation of Finnish Fisheries Associations

Finnish Association for Nature Conservation

Fishermen's Federation for Small-Scale Fishery in Sweden

Association of Sea Fishermen, Mierzeja (not BSAC member)

**Secretariat note:**

In connection with the discussions and agenda item on seals, Wolfgang Albrecht, Association of Fisheries Protection has sent the Secretariat a 24 page report entitled: Testing and development of alternative ecosystem - compatible fishing gear to prevent bycatch of sea birds and porpoises in the German EEZ of the Baltic Sea Subproject 2, EEZ Research Cluster 9. It's by Dr. Kim Cornelius Detloff, of NABU (Nature And Biodiversity Conservation Union) Meeresschutz. Founded in 1899, NABU is one of the oldest and largest environment associations in Germany. The association encompasses more than 560,000 members and sponsors, who commit themselves to the conservation of threatened habitats, flora and fauna, to climate protection and energy policy. Please contact the Secretariat if you want it.