

**OUTCOME OF THE FIRST MEETING OF HELCOM
TASK FORCE ON MIGRATORY FISH SPECIES
(HELCOM FISH-M)**

INTRODUCTION

0.1 The First meeting of the HELCOM Task Force on migratory fish species under HELCOM Fisheries and Environment Forum (HELCOM FISH-M 1/2014) was held on 20 January 2014 in Berlin, Germany, in the premises of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety.

0.2 The Meeting was attended by representatives from Estonia, Finland, Germany, Lithuania, Poland, Russia, Sweden as well as ICES. The List of participants is contained in [Annex 1](#).

0.3 The Meeting was welcomed by Mr. Mikhail Durkin, HELCOM Professional Secretary who also acted as a Chair of the Meeting. HELCOM Assisting Professional Secretary Ms. Petra Kääriä and HELCOM Project Coordinator Mr. Marco Milardi acted as secretaries of the Meeting.

Agenda Item 1 Adoption of the Agenda

Documents: 1/1

1.1 The Meeting adopted the Agenda as contained in document 1/1.

Agenda Item 2 Election of Chair

Documents: None

2.1 The Meeting agreed that Mr. Mikhail Durkin, HELCOM Professional Secretary will chair the first Meeting.

Agenda Item 3 Information by the Chair, Secretariat, Contracting Parties and Observer organizations

Documents: 3/1, 3/2, 3/3

3.1 The Meeting took note of the information on HELCOM in general, HELCOM Baltic Sea Action Plan objectives regarding migratory fish species (document 3/3) as well as tasks and outcomes expected from the Task Force on Migratory Fish Species based on its Terms of Reference (document 3/1) as presented by Mr. Mikhail Durkin ([Presentation 1](#)).

3.2 The Meeting welcomed the presentation by Mr. Mark Dickey-Collas, ICES, on ICES work and working groups regarding migratory fish species in the Baltic Sea. Scientists from across the region work through various ICES groups on salmon, sea trout and eel in the Baltic Sea. These groups include the Joint EIFAAC/ICES working group on eel ([WGEEL](#)), the assessment working group on Baltic salmon and sea trout ([WGBAST](#)) and the working group on effectiveness of recovery actions for Atlantic salmon ([WGERAAS](#)). There is also a working group on the Science Requirements to Support Conservation, Restoration and Management of Diadromous Species ([WGRECORDS](#)). Through these groups the stock assessments of European eel and of salmon (including collation of the commercial and recreational catches) are carried out. The groups also work on the effects of climate on population dynamics, monitoring of open sea areas, and, in the case of salmon in-rivers, monitoring of smolt production and adult returns. The eel management plan has been evaluated by ICES. ICES also provides advice on the genetic impact of salmon production. Recently, ICES has organised workshops on sea trout (WKTRUTTA), on salmon catches in the Baltic ([WKESDCE](#)) and on how the

DCF relates to the assessment of salmon and eel. In 2010, ICES and HELCOM organised a joint workshop on Baltic Eel (WKBALTEEL) and a series of follow-up workshops was planned.

ICES welcomes the HELCOM Task Force on Migratory Fish Species and can see good opportunities for collaboration on some of the issues to be addressed by the Task Force. The Task Force will add value to ongoing initiatives. The Task Force efforts are to be welcomed particularly with regards to assessing local habitat degradation, common assessment of riverine processes across the region, the development of unified management approaches and the proposed integrated approach across species.

Agenda Item 4 Scope and programme of work

Documents: None

4.1 The Meeting welcomed the following introductory presentations given by the experts:

Mr. Teppo Vehanen presented work regarding Baltic salmon, sea trout and whitefish within the Finnish Game and Fisheries Research Institute ([Presentation 2](#)). Currently, the salmon harvest rate in sea fisheries is at its historical low, yet the smolt production targets are mostly not achieved. Possible reasons for this could be too strong sea harvesting, local fisheries close to river mouth, migration obstacles and quality of river habitats or catchment areas. For sea trout the situation is similar as for salmon. The reasons behind the situation are not clear but include, i.a. overfishing, migration problems and enhanced fish stocking. For sea trout an assessment model to estimate the stock specific status indices based on parr densities could be one possibility for the future development. Anadromous whitefish has been classified as endangered in the Finnish Red List 2010, but reasons behind the status are not known.

According to Mr. Vehanen, potential issues for the Task Force to tackle in selected rivers would be:

- fishing issues including fishing in the river system (coastal, river and river mouth fisheries, catch and release, poaching) and catch statistics
- environmental issues including habitat quality, diseases, predation, migration obstacles and hybridization
- water quality issues such as eutrophication and brownification (as dissolved solids reduce egg development), temperature data and environmental flows
- status of stocks including current salmon smolt production and potential salmon smolt production capacity as well as current sea trout parr density index and potential sea trout parr densities

Mr. Sergey Titov presented wild salmon restoration activities in Luga River, Russia, under development within [HELCOM BASE](#) Project ([Presentation 3](#)). The Luga River is the only Russian river within the Baltic Sea catchment with naturally reproducing salmon populations. The BASE project has made an inventory of spawning and nursery areas in the river, as well as detection and abundance estimation of juvenile salmon and juvenile salmon fodder base and a description of the composition of ichthyofauna. The project has also carried out a salmon reproduction study in Luga Bay indicating an extremely low population size (2000-3000 spawners a year) as the potential for the river is approximately 10 times higher. The main factors affecting the population include poaching, polluted spawning grounds and intensive construction of port in the estuarine area of Luga.

To restore and protect local salmon populations in the Luga River a management plan for conservation/restoration will be developed including actions related to guarding of the river, restoration of spawning areas, intensified salmon hatchery operation, limiting development of port constructions in the Luga Bay and fisheries regulations.

Mr. Willem Dekker gave a presentation on the status of Baltic (European) eel stock ([Presentation 4](#)). The species is extremely widespread which makes it difficult to fully assess the population size and dynamics. During the last 30 years the stock has declined substantially. The traditional eel fishery has

decreased but catches of reared eels are continuing at a slightly lower rate. The causes are multiple, including ocean climate, parasites from Asia, river pollution, regulated/dammed rivers for hydropower production, fisheries, predation by cormorants, with no clear consensus on their relevance and scale.

In 2007 EU protection plan for European eel (Council Regulation (EC) No 1100/2007) came into force, obliging EU countries to develop National Management Plans before 2009, aiming at a common target. The National Management Plans have been post-evaluated in 2012, and EU Commission is now evaluating the overall achievements. There is initial indication of a possible positive effect of the protection plan, especially on improvement of the previously dramatically declined glass eel stock.

All the Baltic sea areas, as well as water bodies in the catchment, including rivers and lakes are potential habitats for eel, while several issues have an impact on the species including commercial and recreational fisheries, migration barriers, mortality at hydropower plants and restocking. For protection and management of the eel a Baltic-wide management plan is necessary because of parallel and shared problems, e.g. re-stocking efficiency confronted by fishing pressure in the Danish Straits. More interaction and coordination is required, methods need to be adapted to available data and standards for monitoring need to be developed and applied all over the Baltic Sea.

Mr. Sergey Shibaev presented eel management measures in Kaliningrad Oblast of Russia ([Presentation 5](#)). The eel stock has collapsed dramatically since the 1960-1980s in the Curonian Lagoon, Vistula Lagoon and the Vistytis Lake on the border with Lithuania. To launch activities for restoration of the stock, a joint management plan between Russia and Poland is being developed for river Pregolya in line with the agreement reached by the Joint EU-Russia Baltic Sea Fisheries Commission. The draft Plan includes measures to reduce fishing mortality and restocking of glass eels both in Poland and Russia, pending its adoption.

Mr. Jörn Gessner gave a presentation on Baltic sturgeon remediation project involving several partners including HELCOM ([Presentation 6](#)). The project objectives are to establish a self-sustaining population of *Acipenser oxyrinchus* in the Odra and Vistula River basins, recolonisation/reintroduction to previous rivers in Poland, Kaliningrad Oblast of Russia, Lithuania, Latvia and Estonia as well as river habitat restoration and long-term management plans. The last observation of *A. oxyrinchus* was made in 1996 in Estonia, brood-stocks maintenance has been executed since 1997, releases were initiated in 2006 and in 2014 river fisheries will be involved. Sturgeon migration has been studied with telemetry and recapture experiments and an overlap with gill net, bottom trawl and coastal fisheries and aggregation of sturgeons is evident. Thus, increased compliance and measures to reduce fisheries related mortality are essential for the survival of the species. Current conflicts regarding sturgeon survival include a plan to classify the Odra river border section as a heavily modified area and the fact that sturgeon is not yet listed as a target species in Wartha river (full potential for spawning sites and juvenile habitats). The project aims to develop an action plan for Baltic sturgeon by 2017 and a joint project application with active countries will be submitted in 2014. Mr. Gessner suggested the following issues for the Task Force to tackle regarding sturgeon: monitoring, assessment and mitigation of fisheries impacts and habitat improvement.

Mr. Olle Calles gave a presentation on new techniques to improve downstream migration developed in Sweden ([Presentation 7](#)). In Sweden the recent development of fishways has shifted from technical to more nature-like ways and nature-like fishways are currently the most common type. In addition to providing passage, nature-like fishways can also provide habitats for different species. The current river rehabilitation need in Sweden is enormous as many regulated rivers are lacking fish-ways. Swedish downstream passage rehabilitation work has been evolving since 2007, including various case studies performed for example in rivers Ätran, Emån, Alsterälven and Mörrumsån. A case study executed in river Ätran started with a powerplant including racks without passage that caused high mortality rates for European eels. An installation of racks with a collection facility resulted in 80% of eels passing by. Another case study in river Alsterälven was performed on

bypasses and the study revealed that eel and burbot prefer bottom and other species surface bypasses. Other case studies involved i.a. building of a collection facility in river Mörrumsån and creation of a large nature-like fishway in river Ätran.

The case studies have shown that it is possible to rehabilitate downstream passage, the overall goal should be two-way rivers for all species, passage is an ideal solution for downstream migration but not always feasible and solutions for large HEPs need to be tested.

Mr. Calles also informed the Meeting of a Fish Passage seminar for sharing best practices and innovations regarding fish passage to be organised on 23-26 June 2015 in the Netherlands.

Mr. Sergey Shibaev gave a presentation on an attempt to stock whitefish in the Curonian Lagoon ([Presentation 8](#)). Whitefish has for long been a valued fish in the Curonian Lagoon but the catch has continuously been decreasing. In 2000 the fishery was prohibited and fishing was only allowed for scientific and reproductive purposes. A hatchery plant for whitefish has been built recently. In the hatchery, temperature of eggs is manipulated to obtain at least 3 batches of larvae during one breeding season. The larvae are progressively grown to fingerlings and then released. Large numbers of fingerlings (ca. 150.000) are released every year, however, no monitoring of return is performed (only estimated).

Mr. Linas Lozys presented the state of twaite shad, vimba and whitefish stocks in Lithuania ([Presentation 9](#)). A LIFE project [DENOFLIT](#) on twaite shad in coastal waters of Lithuania and Curonian Lagoon is ongoing. Commercial fishery exists in the spawning areas of twaite shad in the Curonian Lagoon. In the 1960s the Lithuanian twaite shad stock was depleted and the species red listed after which the stock started to recover. In 2005 it was excluded from the national Red list and the fisheries started again, peaking at 265 tons in total in 2011 resulting in a subsequent drop in the stock. Study on the abundance of twaite shad in trawling surveys in the Baltic Sea 1995-2000 resulted in few numbers of caught fish, possibly because the fish prefer Polish or Russian grounds. Survey data from 2003-2013 shows a declining trend in the population size.

Commercial catches for whitefish have dramatically decreased in the Curonian Lagoon since 1950s. The current catches of whitefish are extremely low (200 kg) suggesting the species should be considered to be included into the national Red list. Whitefish also spawns in the Curonian Lagoon, mainly in the Russian parts and prefers coastal locations.

Commercial catches for vimba stocks in the Curonian Lagoon declined in the 1970s and started to recover again in the 2000s. Vimba has in the past been migrating both in the spring and autumn but nowadays mostly autumn migration occurs.

Mr. Lozys informed the Meeting of a [World Conference on Natural Resource Modelling](#) to be held on 8-11 July 2014 in Vilnius, Lithuania.

4.2 The Meeting discussed the need for handbook for best practices for passing migration barriers and noted that there are already some national handbooks available: at least, one by [DWA Germany](#) and one in Swedish produced in cooperation with SWAM. The Meeting invited participants to check suitability of available national sources for making them available to the other countries/review and standardize them at the regional level.

4.3 The Meeting discussed the situation of downstream passage in the Contracting Parties and noted that:

- in Poland there are no installations for downstream passage, racks are three centimeters wide and telemetry studies on eels have not detected mortalities

- in Estonia only small hydropower stations exist, a lot of money is allocated to fish passages, and most problems are related to upstream migration. In river Narva naturally spawning salmon has recently been lost due to lack of water at natural rapids caused by river regulation and negotiations with Russia are ongoing

4.4 The Meeting discussed the situation of whitefish stocks in different countries and noted the following information:

- in Poland the whitefish stocks in several coastal waters such as the Szczecin Lagoon, Gulf of Gdansk and the Curonian Lagoon have been decreasing substantially and the reasons need to be clarified. Accumulated eutrophication of the Curonian Lagoon might prevent the survival of stocked whitefish juveniles
- in Germany whitefish migration in small numbers is observed in the River Odra up to Frankfurt
- in Sweden some individuals have been observed to migrate up rivers
- in Estonia there are extinguished populations of whitefish and the semi-migratory whitefish is among species to be stocked

4.5 The Meeting noted the comment by Mr. Gunnar Noren, CCB, stating that because of the poor state of whitefish populations there is a need for a project compiling information, reviewing gaps and providing recommendations for joint management of the Baltic Sea whitefish stocks.

4.6 The Meeting took note of the comment by Mr. Mark Dickey-Collas, ICES, stating that most of the migratory species qualify under the Descriptors 3 (commercial fish) or 1 (biodiversity) of the MSFD, which could play a major role in the conservation and attention reserved to these species. Both CFP-regulated as well as nationally regulated commercial fish species fall under Descriptor 3.

4.6 The Meeting discussed challenges, cross-cutting issues and priorities for the Task Force to address, in break-out groups, evenly representing participating countries as well as research and management competence, and came up with the following suggestions:

Challenges

- Lack of structural approach: setting a harmonised/standardised way of data collection and reporting on the state of stocks for all diadromous species (marine and freshwater), based on a commonly agreed list of species and scope of reporting; based on this standard framework on stock state reporting –decide on the priorities (for further details cf. [Annex 2](#), notes by one of the groups)
- Lack of/low awareness and focus at policy level on relevant research priorities resulting in limited resources for research
- Lack of coordination between national restoration/rehabilitation activities, most obvious with eel management plan, there is a need for integration into Baltic-wide level
- Need for coordinated responsibilities/competence between marine and freshwater management authorities as well as between international and national competence
- Uneven quality of data for prioritising issues
- Lacking success stories and best practices examples

Cross-cutting issues

- How to implement and collect, harmonise and implement advice provided in different HELCOM groups including HABITAT, RED LIST, FISH/ENV Forum, FISH-PRO II and Sturgeon PG?
- How to reflect single-species priorities within multi-species ecosystem approach? Preferably issues common/relevant for all/many species rather than single species should be addressed
- Focus on interaction between stocked fish and natural recruitment (e.g. fish diseases, genetic diversity, stock mixing, competition)
- Evaluation of restocking practices vs. habitat management to address priority problems related to a specific stock

Priorities

- A common approach towards monitoring methodology and reporting as well as data management is necessary to be able to determine underlying reasons and differences between systems more easily
- Based upon these data, joint management strategies are to be developed that also include the riverine habitats as well as the fisheries impacts
 - In order to obtain an overview on the current information available and the measures carried out, a review of projects on Baltic migratory fish should be performed
 - Countries to suggest priority actions from national perspective allowing to identify common approaches and joint actions
- Setting relevant management aims for different species, e.g. aiming at Good Conservation status/attractiveness for fishermen, based on a common data acquisition method and a joint analysis of the underlying reasons for population decline. The management aims could be country-specific, keeping in mind different level of management (national, regional, Baltic wide)
- Facilitation of up and downstream migration for all species affected:
 - Review existing handbooks for best practices to consider necessity of their adaptation to the Baltic Sea catchment conditions
 - Compilation of best practices for development of a riverine salmon management/restoration plan
 - Developing a tool to support the decision making of priority river restoration measures
- Stimulate resource allocation by highlighting management gaps and the need for common solutions (developing project ideas/drafting proposals)

4.7 The Meeting agreed to use the above discussion points in further development of the Work Programme of the Task Force.

Agenda Item 5 Any other business

Documents: None

5.1 The Meeting invited the Participants to consider co-chairing the work of the Task Force and inform the Secretariat (petra.kaaria@helcom.fi) **by Friday 31 January 2014**.

5.2 The Meeting agreed that comments on the Terms of Reference are to be provided to the Secretariat (petra.kaaria@helcom.fi) **by 7 February 2014**.

5.3 The Meeting emphasised that teleconferences will most likely be more frequently held in the future within HELCOM which applies also to the Task Force meetings. The Secretariat was asked to verify if software would be made available to jointly utilize a common platform. The Meeting noted that regular face-to-face meetings might be necessary for the Task Force to increase exchange and productivity.

5.4 The Meeting also requested the participants to cross-check and update the HELCOM FISH-M List of Contacts distributed at the meeting and submit any corrections/additional information to the Secretariat (petra.kaaria@helcom.fi) **by 7 February 2014**.

Agenda Item 6 Closure of the Meeting

Documents: None

6.1 The Meeting agreed that the Secretariat will distribute the draft outcome of the Meeting no later than Monday 27 January 2014. The Meeting agreed that comments on the draft outcome should be provided no later than **by Friday 31 January 2014**.

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ANNEX 2. NOTES BY GROUP 1.**Challenges and information requirement:**

1. Biological Background data
 - a. Population status reproductive conditions
 - b. Habitat utilization (feeding, wintering sites)
 - c. Migration routes
 - d. Habitat quality and temporal changes
 - e. Anthropological impact (what, how, how much)
Requires standard monitoring, assessment
2. Management prerequisites
 - a. Fisheries
 - i. Commercial (what, who, how many, how much, what time, conflicts)
 - ii. Recreational(what, who, how many, how much, what time, conflicts)
 - iii. Angling (what, who, how many, how much, what time, conflicts)
 - b. Habitat utilization
 - i. Criteria for utilization
 - ii. Temporal changes
 - iii. Utilization types
 - iv. Other resource uses
 - c. Protective measures
 - i. Limitation of utilization (catch limitation by amount, size etc.)
 - ii. Closed areas
 - iii. Closed seasons
 - d. Recovery Actions
 - i. Total protection
 - ii. Reintroduction
 - iii. Stocking
 1. Methodology
 2. Genetic impact
 3. Efficiency
3. Administrative framework
 - a. National fish management but basin-wide harvest results in /requires (common impact but single/individual responsibility)
 - b. Joint responsibility
 - c. Joint management
 - d. Binding agreements

Conclusions:

What is urgently needed is a harmonized approach towards management of these resources.

Common practice for the assessment of the populations and their performance are required to compare relevant findings

Therefore, standard criteria, standard measures, and standard reporting are essential that must include stock size, trends over time, life history information for the different catchments, associated human impacts.

From the above mentioned background a common framework is to be defined that is to be applied for different species.

Task Force to conceptualize, harmonize and lead towards solutions

As a prerequisite, Helcom would have to move from marine to transitional waters and its involvement into freshwater (rivers) as a major link between catchment and marine habitats would be encouraged. Also the current focus on habitat would have to be expanded where fisheries interact with nature protection.