



Baltic Marine Environment Protection Commission

Regional Workshop on Eel and the Baltic Sea

Task force on migratory fish species (FISH-M 5-2017)

Stockholm, Sweden, 29 November – 1 December 2017

*Organized in
cooperation
with:*

**Swedish Agency
for Marine and
Water Management**



Outcome of Regional Workshop on Eel and the Baltic Sea (HELCOM FISH-M 5-2017)



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0. Introduction

0.1 With reference to the Work Plan of HELCOM Fish (Action 3.7) and outcomes of HELCOM FISH 6-2017 (§8.1) and HOD 52-2017 (§3.11), the fifth Meeting of HELCOM Task Force on migratory fish species (FISH-M 5-2017) was held as 'Regional Workshop on Eel and the Baltic Sea'. The Workshop was hosted by the Swedish Agency for Marine and Water Management and the Swedish University of Agricultural Sciences in cooperation with the Convention of Migratory Species (CMS) and the Sargasso Sea Commission (SSC).

0.2 The Workshop was held in Stockholm (Biz Apartment/Gärdet), Sweden, on 29 November – 1 December 2017 gathering representatives from management bodies, scientific experts and stakeholders in charge of assessment and management of eel in countries around the Baltic Sea and its tributaries to:

- update each other on regional and international processes and their role/contribution to eel assessment and management in the Baltic;
- exchange information on national eel assessment and management;
- discuss similarities, differences, challenges and opportunities;
- propose next steps towards the aim of a Baltic wide stock status assessment and
- facilitate subsequent action, to be further developed at the appropriate fora (HELCOM FISH work plan, Action 3.7).

0.3 The Workshop was attended by representatives from the following Contracting Parties: Denmark, Estonia, EU, Finland, Germany, Latvia, Lithuania, Russia and Sweden and from the following organizations: Association of fisheries in Finland, Baltic Sea Advisory Council, Coalition Clean Baltic, European Anglers Alliance, The Fisheries Secretariat, International Council for the Exploration of the Sea, Low Impact Fisheries of Europe (LIFE), Swedish Society for Nature Conservation, Thuenen Institute of Fisheries Ecology, The Swedish Anglers Association and WWF Baltic Sea Ecoregion Program.

0.4 The List of Participants is contained in **Annex 1**.

0.5 The Workshop was chaired by Willem Dekker, Swedish University of Agricultural Sciences (SLU Aqua), Sweden. Hermanni Backer Johnsen, Professional Secretary of HELCOM FISH acted as secretary of the workshop assisted by Petra Kääriä, HELCOM Assisting Professional Secretary.

1. Opening of the Meeting

1.1 Ulrika Gunnartz, Swedish Agency of Marine and Water Management (SWAM), Sweden welcomed the workshop participants to Sweden and extended a special welcome the co-organizers Melanie Virtue, Head of the Aquatic Species team at CMS Secretariat and David Freestone, Executive Secretary of the SSC.

1.2 Monika Stankiewicz, HELCOM Executive Secretary, welcomed the participants on behalf of HELCOM and presented the role of the HELCOM task force on migratory species (FISH -M) as a forum to facilitate the implementation of regional HELCOM commitments on migratory fish species, including those on eel. She highlighted the ongoing work within HELCOM to link regional and global work by i.a. the Sustainable Development Goals (SDGs) and that the 2018 HELCOM Ministerial Meeting to be held on 6 March 2018 in Brussels under the EU Chairmanship of HELCOM.

1.3 Willem Dekker, SLU Aqua, introduced the objectives, background and program of the workshop (**Presentation 1, Annex 2**). The decline of the European eel fisheries have been noted since the early 1970s and the species is currently classified as Critically Endangered by the IUCN and HELCOM Red Lists, listed in Appendix II of the CMS and Appendix II of the Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES). For those Baltic Sea coastal countries which are members of the EU, fisheries of eel is regulated of the (EU) Council Regulation 1100/2007. The eel in the Baltic Sea merits special attention as the region hosts approximately one quarter of the remaining stock of the European eel and the narrow straits between Sweden and Denmark is the migration way for the entire population of eels in the region. Collaboration and exchange between countries around the Baltic on the assessment of eel and impacts of management measures can support concerted and effective management actions on eel in the sea basin.

2. The role and contribution of regional and international organizations towards eel assessment and management in the Baltic Sea region

2.1 Representatives from regional and international organizations presented their contributions to eel assessment and management in the Baltic Sea region:

- Alan Walker, as chair of the Working Group on Eel (WGEEL) of the European Inland Fisheries and Aquaculture Advice Commission (EIFAAC), International Council for the Exploration of the Sea (ICES) and General Fisheries Commission of the Mediterranean (GFCM), which is a scientific group supporting ICES, an intergovernmental scientific organization advising on the status of the stock of the European eel (**Presentation 2**).
- Hermanni Backer Johnsen, Baltic Marine Environment Protection Commission (HELCOM) Secretariat which is a regional intergovernmental organization on the Baltic Sea marine environment which works with European eel as a part of the Baltic Sea ecosystem and biodiversity, with a possibility to address environmental aspects of the eel lifecycle in the Baltic Sea area including inland waters of the catchments (**Presentation 3**).
- David Freestone of the Sargasso Sea Commission (SSC), which is a relatively new regional organization focusing on the Sargasso Sea south of Bermuda, the spawning ground of the European eel (**Presentation 4**).
- Melanie Virtue of the Convention on the Conservation of Migratory Species of Wild Animals (CMS), a multilateral global treaty working on the conservation of the European eel as it is included in Appendix II of the CMS Convention (**Presentation 5**).
- Lindsay Keenan of the Baltic Sea Advisory Council (BSAC) which is a regional advisory council (stakeholder forum) of the EU Common Fisheries Policy which gathers both fisheries and other stakeholder organizations active in the Baltic Sea region and gives stakeholder opinion on European eel management (**Presentation 6**).
- Stanislovas Jonusas of the European Commission (EC, DG MARE) which has a special role in European eel management in the EU due to its exclusive competence in marine fisheries, relevant for Baltic Sea countries which are members of the EU. He briefly presented the competencies of the European Union in fisheries and environmental policy areas and also informed the participants of the work done so far in eel management and initiatives that have been already taken at EU level.

3. Overview of information available at the national level

3.1 The Contracting Parties presented national information on the status of the eel stock, impact of commercial, recreational, unreported, illegal fisheries on eel, reported and unreported landings, traceability, illegal catches and control, other impacts on the stock (including restocking, migration barriers, hydro-power etc.), monitoring and assessment as well as interaction and collaboration with other countries. This national information was given as follows:

- Sweden (**Presentation 7**)
- Finland (**Presentation 8**)
- Germany (**Presentation 9**)
- Estonia (**Presentation 10**)
- Latvia (**Presentation 11**)
- Lithuania (**Presentation 12**)
- Russia (**Presentation 13**)
- Denmark (**Presentation 14**)
- Poland was not able to participate but submitted information in advance via Chair.
- Belarus was invited but could not participate, has intensive restocking programs and some bilateral contacts have been made with the Lithuanian administration around eel but no concrete cooperation has been established so far.

4. Similarities, differences, challenges and opportunities of national assessments: implications for enabling a Baltic-wide assessment

4.1 The Workshop considered and agreed on the summary of the status of national work presented by the Chair (**Annex 3, see [separate Excel Attachment 1 for details](#)**), and the following overall conclusions regarding European eel in the Baltic Sea:

- a) **Stock monitoring** is carried out by most coastal countries even if these are not always complete.
- b) **Commercial Fisheries** is generally monitored but mortality is not calculated in several coastal countries.
- c) **Recreational fisheries** is less comprehensively monitored and mortality is not calculated in several coastal countries.
- d) **IUU fisheries** is poorly documented in the region with some exceptions.
- e) **Inland habitats** have been mapped but no monitoring of the habitat developments are being carried out. Importance of habitats for recruitment is not quantified.
- f) **Hydropower and other migration barriers** have been mapped, have an impact on eel but this is not well quantified.
- g) **Predators** are known to have an impact, but mortality rates are not always quantified.
- h) **Restocking** is well known and well monitored even if its effects on stock –level recruitment is not known.
- i) **Cross-border interaction** between management measures, in particular the effect of the fisheries near the Baltic outlet on the silver eel run derived from the whole Baltic Sea area, is unknown.

5. Reflection

5.1 The Workshop provided the following comments on the European eel in the Baltic Sea:

- a) IUU fisheries, both commercial and recreational fisheries, takes place and should be addressed as a priority.
- b) The impact of recreational fisheries may be comparable to that of commercial fisheries in many areas and should be quantified better
- c) EU (EMFF) covers a major share of the current CFP data collection costs in EU countries in the Baltic Sea catchment but there are additional data collection needs related to other impacts on eel that are not covered by these funds. EU CFP data collection activities are coordinated by RCGs.
- d) The lack of national stock indicators from a major share of the Baltic Sea countries in the 2012 & 2015 reports should be analyzed in detail and addressed as a priority.
- e) Elaborating a catch documentation and traceability scheme for both inland and marine waters of the Baltic Sea, inspired by examples from certain Member States (c.f. document 2, submitted by LIFE) and based on modern IT technologies, has the potential to improve the eel data availability and help solve the IUU fishing problem.
- f) ICES data calls are progressing. In 2018, a tri-annual update of stock indices will be made by member states, and more complete results are expected as result of upcoming data calls. However, those results critically depend on assessment results and stock indicators being made available by the participating countries. In 2015, about half the Baltic countries did not report the required indices.
- g) Regional assessments are fully depending on the availability and quality of national data and analysis.
- h) Natural recruitment and upstream migration is very low in most parts of the Baltic Sea.
- i) The current stocks are managed in order to maintain fishery but also eel as part of biodiversity by catching eel in one place (mainly UK and FR) and releasing it elsewhere. These restocking activities are done by governments and stakeholders.
- j) The positive contribution of restocked eels to the actual spawning process in the Sargasso Sea has not been proven, but neither is the contribution of natural recruited eels. Various views on this exist.
- k) Restocking above migration barriers, such as hydropower turbines, is still relatively widespread.
- l) Migration barriers have contributed to a major loss of eel habitat in the Baltic Sea region.
- m) Decisions on migration obstacles, including hydropower, are commonly taken outside the fisheries management regime.
- n) Salmonid river restoration activities and initiatives (e.g. recent RETROUT project) may benefit eel, but their effectivity is to be evaluated against eel specific requirements.
- o) Available assessments, such as the ICES Stock assessments, considers the overall status of the stock only. As such, the ICES Stock assessment does not discuss management measures influencing those results.
- p) National eel management plans focus is on national actions, but effects on the stock (in absolute and relative terms) are less often considered. Few Baltic Sea countries reported measures, or their implementation, to the EU process.
- q) Concerted monitoring and quantifying migration of silver eel would enable following the region-wide effectiveness of management measures. Moreover, the interaction between measures taken in one country in the Baltic Sea area affecting the results of protective actions in another, need to be addressed on the regional level.
- r) The long eel lifecycle heightens the need to take urgent action but makes recovery a very slow process (several decades) even if all anthropogenic mortality would be reduced to zero.
- s) Tight and regular international cooperation on monitoring and assessment of eel in the Baltic Sea region is needed to enable better data use to ICES stock assessments, as well as better and more cost effective management in the countries.
- t) Eel assessment and management has several dimensions, both from the fisheries and nature conservation perspective, and would benefit from a joint process, fully acknowledging the different

mandates of, and utilizing cooperation between, different organizations in the Baltic Sea but also beyond.

6. Next steps

6.1 The Workshop recalled the previous HELCOM commitments on eel from Ministerial Meetings in 2007 and 2013 and was of the opinion that these are still valid and in urgent need of implementation. Furthermore, the workshop was of the opinion that it is urgent to take these commitments on board, and if necessary further strengthened, during the foreseen renewal of the Baltic Sea Action Plan to be considered by the HELCOM 2018 Ministerial Meeting.

6.2 The Workshop highlighted that the European eel merits from special attention in the Baltic Sea as assessment and management action is strongly influenced by the shared migration channel to the Sargasso Sea via the narrow straits between Denmark and Sweden and Kattegat and as national management plans have influence across borders.

6.3 The Workshop welcomed the initiative for a Baltic wide stock status assessment process to fill national data gaps (c.f. **Annex 3**), enabling better data on abundance and mortality to the EU and ICES, to create a platform for regional dialogue and consolidation of expertise and to enable better and more cost effective eel management in the coastal countries by considering transboundary interactions.

6.4 The Workshop highlighted that such a regional assessment process should be synchronized with the EU reporting cycle (upcoming reporting 2018 and beyond) and feed in ICES and EU processes in addition to regional needs.

6.5 The Workshop agreed that a joint comprehensive project on monitoring and assessment of eel involving the national research institutes involved in stock assessment and eel management from the Baltic Sea and other partners would be a useful step to catalyse work on eel in the Baltic Sea region. The Workshop stressed that without stepping up concerted regional action, eel recovery efforts are not likely to be successful.

6.6 The Workshop agreed that, based on the current urgent situation and earlier work (**Annex 4**), such a project on eel monitoring, assessment and management action should be prepared as soon as possible with the view to submit it in 2018 to a suitable funding call and requested the national administrations and other partners to consider such an initiative and nominate contact points as soon as possible to enable the forming of a new partnership (willem.dekker@slu.se).

6.7 The Workshop requested the administrations, both national and the EU, to provide information on available funding opportunities and to consider funding such an initiative by other means if suitable competitive funding calls were not available.

7. Second CMS/SSC range state workshop

- 7.1 The Workshop welcomed that the second CMS/SSC range state workshop will be organized 15-16 May 2018 at World Maritime University, Malmö, Sweden.
- 7.2 The Workshop recalled that CMS/SSC will issue a questionnaire to the range states in advance of the workshop and stressed the importance to provide good input from the range states in the Baltic Sea region.
- 7.3 The Workshop highlighted the importance that the range states in the Baltic Sea region, as well as relevant stakeholders, participate in the upcoming CMS/SSC workshop.

8. Outcome and Closure of the Meeting

- 8.1 The Meeting considered and agreed on this outcome of the Workshop which will be forwarded to HELCOM HOD and FISH for consideration.
- 8.2 The Chair thanked all the participants for a successful workshop and wished everyone good travels home.
- 8.3 The Workshop participants thanked Sweden for hosting and Willem Dekker for the excellent moderation.
- 8.4 This Outcome and the presentations and documents considered by the workshop are available in the [FISH-M 5-2017](#) meeting site in the HELCOM Meeting Portal.

Annex 1 List of Participants

Name	Organization	E-mail
Chair		
Willem Dekker	SLU-Aqua, Institute of Freshwater Research	willem.dekker@slu.se
Denmark		
Lene Scheel-Bech	Danish Agrifish Agency	lensch@lfst.dk
Michael Pedersen	Danish Technical University	mip@aqua.dtu.dk
Pernille Birkenborg Jensen	The Danish AgriFish Agency	pbje@lfst.dk
Estonia		
Priit Bernotas	Estonian University of Life Sciences	pbernotas@emu.ee
Sander Sandberg	Estonian Ministry of the Environment	sander.sandberg@envir.ee
EU		
Stanislovas Jonusas	EC	stanislovas.jonusas@ec.europa.eu
Finland		
Heikki Lehtinen	Ministry of Agriculture and Forestry	heikki.lehtinen@mmm.fi
Jouni Tulonen	Natural Resources Institute Finland	jouni.tulonen@luke.fi
Germany		
Malte Dorow	State research Centre of Agriculture and Fisheries	m.dorow@lfa.mvnet.de
Latvia		
Janis Bajinskis	Institute of Food safety, Animal Health and Environment "BIOR"	janis.bajinskis@bior.lv
Lithuania		
Justas Poviliūnas	Fisheries service under the ministry of Agriculture of the Republic of Lithuania	klaipedaa@yahoo.com
Linas Lozys	Nature Research Centre	lozys@ekoi.lt
Russia		
Sergey Shibaev	Kaliningrad State Technical University	shibaev.s@gmail.com
Sweden		
Andreas Bryhn	SLU	andreas.bryhn@slu.se
Jens Persson	Swedish Agency for Marine and Water Management	jens.persson@havochvatten.se
Katarina Magnusson	Swedish University of Agricultural Sciences	Katarina.magnusson@slu.se
Ulrika Gunnartz	Swedish Agency for Marine and Water Management	ulrika.gunnartz@havochvatten.se
Co-organizers		
David Freestone	Sargasso Sea Commission	dfreestone@sargassoseacommission.org
Melanie Virtue	Convention on the Conservation of Migratory Species of Wild Animals	melanie.virtue@cms.int
Observer organizations		
Michael Andersen	Baltic Sea Advisory Council / Danish Fishermen PO	ma@dkfisk.dk
Lindsay Keenan	Baltic Sea Advisory Council / The Fisheries Secretariat	lindsay.keenan@fishsec.org

Nils Höglund	Coalition Clean Baltic	nils.hoglund@ccb.se
Christina Lindhagen	European Anglers Alliance (EAA)	christina.lindhagen@sportfiskarna.se
Alan Walker	International Council for the Exploration of the Sea (ICES)	alan.walker@cefas.co.uk
Hans Jacob Jensen	Low Impact Fisheries of Europe (LIFE)	argonautjacob@gmail.com
Marcin Rucinski	Low Impact Fisheries of Europe (LIFE)	bans@lifeplatform.eu
Inger Näslund	WWF	inger.naslund@wwf.se
Teemu Tast	BSAC/ Association of Sea Fishers in Southern Finland	teemu.tast@kymp.net
Ellen Bruno	Swedish Society for Nature Conservation/CCB	ellen.bruno@naturskyddsforening.se
Invited Guests		
Jan Isakson	The Fisheries Secretariat	jan.isakson@fishsec.org
Niki Sporrong	The Fisheries Secretariat	niki.sporrong@outlook.com
Klaus Wysujack	Thuenen Institute of Fisheries Ecology	klaus.wysujack@thuenen.de
HELCOM Secretariat		
Hermann Backer	Helsinki Commission	hermanni.backer@helcom.fi
Monika Stankiewicz	Helsinki Commission	monika.stankiewicz@helcom.fi
Petra Kääriä	Helsinki Commission	petra.kaaria@helcom.fi

Annex 2 Provisional Programme of the workshop

Regional workshop on Eel and the Baltic Sea
29 November (13:00) – 1 December 2017 (14:00)
Biz Apartment / Gärdet (Sandhamnsgatan 67)
Stockholm, Sweden

The Regional workshop on Eel and the Baltic Sea 2017 will take place in Biz Apartment / Gärdet (Sandhamnsgatan 67) Stockholm, Sweden starting 13:00 on Wednesday 29 November and is expected to terminate 14:00 on Friday 1 December 2017.

The workshop will gather representatives from management bodies, scientific experts and relevant stakeholders in charge of assessment and management of eel in countries around the Baltic Sea and its tributaries to:

- update each other on regional and international processes and their role/contribution to eel assessment and management in the Baltic
- exchange information on national eel assessment and management
- discuss similarities, differences, challenges and opportunities
- propose next steps towards the aim of a Baltic wide stock status assessment and facilitating subsequent action, to be further developed at the appropriate fora (HELCOM FISH work plan, Action 3.7).

Participants from Baltic Sea coastal countries are kindly requested to prepare a comprehensive presentation of information available at the national level in their country for agenda item 5. If possible, presentations should be submitted to the HELCOM Secretariat before 22 November 2017 for distribution to workshop participants in order to allow for productive discussions under agenda point 6.

The outcome of the workshop will be submitted to HELCOM FISH and other organisations/bodies, as appropriate, for consideration and follow-up.

In order to facilitate progress in the workshop, reports and documentation from earlier meetings (including the 2010 workshop on eel by Helcom & ICES, recent assessment reports and meetings on eel management and assessment, etc.) will be made available before the meeting.

The workshop is organised as part of the HELCOM Task force on migratory fish species subgroup (HELCOM FISH-M 5-2017) with reference to the Work Plan of HELCOM Fish Workplan (Action 3.7) and outcomes of HELCOM FISH 6-2017 (§8.1) and HELCOM HOD 52-2017 (§3.11).

A key feature of the workshop is to organise it in cooperation with other organisations. The Convention on Migratory Species (CMS) and Sargasso Sea Commission (SSC) have already agreed.

The workshop is hosted by the Swedish Agency for Marine and Water Management (SWAM) with the Swedish University of Agriculture (SLU).

Provisional Programme

Wednesday 29 November 2017

1. Opening of the meeting - *SwAM, SLU-Aqua, HELCOM*
2. Introduction to the workshop - *Willem Dekker, SLU-Aqua*
 - background, aims and programme of the workshop
 - status of the eel stock with a focus on the Baltic Sea
3. The role and contribution of regional and international organisations towards eel assessment and management in the Baltic Sea region - *brief presentations from ICES, HELCOM, Sargasso Sea Commission, CMS, BSAC and the EU Commission (TBC)*
4. Overview of information available at the national level highlighting challenges and opportunities - *20 min presentation by each participating country followed by Q&A*
 - The status of the eel stock in each country
 - The impact of commercial, recreational, unreported, illegal fisheries on eel
 - Reported and unreported landings, traceability, illegal catches and control
 - Other impacts on the stock, including restocking, migration barriers, hydro-power, etc.
 - Monitoring and assessment: achievements, shortcomings, further requirements
 - Interaction and collaboration with other countries, magnitude of the interaction, inclusion in monitoring and assessment.

Thursday 30 November 2017

5. Continuation of presentations of information available at the national level - *participating countries*
6. Similarities, differences, challenges and opportunities of national assessments: implications for enabling a Baltic-wide assessment - *reflections by Willem Dekker, SLU-Aqua followed by thematic discussions on key topics such as:*
 - Fishery-independent monitoring of recruitment, abundance, escapement
 - Commercial fisheries, reported and unreported
 - Recreational fisheries, reported and unreported
 - Illegal fisheries, traceability, control, monitoring
 - Restocking, achievements, stumbling blocks, effectiveness
 - Migration barriers, upstream and downstream, and hydropower related mortality
 - Monitoring and assessment, methods, coverage, short-comings
 - Baltic assessment, opportunities, stumbling-blocks

Friday 1 December 2017

7. Next steps towards a Baltic wide stock status assessment and subsequent actions - *discussion facilitated by Willem Dekker, SLU Aqua*
 - *What* is needed to enable a Baltic wide stock status assessment and subsequent regionally coordinated actions?
 - *How* can this be organized?
 - *When* and in what order?
 - by *Whom*, within which forum/institutional framework?
 - does it require funding? *Where* can this be sourced?
8. Drafting of joint messages and outcomes from the workshop – *facilitated by Willem Dekker, SLU Aqua*
9. Closure of the meeting – *SLU Aqua/SwAM/HELCOM*

Annex 4 Draft outline and background sections of a project on eel in the Baltic Sea

Please note that the material below is an extract of a proposed project from 2012 and needs updating. Please provide comments directly to the coordinator of that proposal, Willem.Dekker@slu.se.

Outline

All over Europe, the eel stock is in decline. The EU eel protection plan is currently implemented by means of national Eel Management Plans – but the Baltic Sea area is essentially a single biological management unit and HELCOM aims at integration of the existing national protection efforts. We develop a comprehensive assessment for the whole Baltic eel stock, enabling that pan-Baltic integration; and we analyse the added complexity of international governance for this shared, multi-impacted stock.

Background, concept, objectives and expected outcome

Eel stock status: The European eel *Anguilla anguilla* (L.) is found and exploited all over Europe, northern Africa and Mediterranean parts of Asia; the whole stock most likely constitutes a single, panmictic population, spawning in the Sargasso Sea (south of Bermuda). On the continent, eels occur in coastal areas, estuaries, lagoons, rivers, lakes, marshes, streams and ditches. In the past century, fishing yield has gradually declined to below 20% of former levels. In 1980, a prolonged recruitment decline started, down to only 1-5% nowadays. Potential causes for the decline may include (in random order): habitat loss, pollution, fisheries on all continental life stages, hydropower-related mortality, predation by cormorants and seals, introduced parasites and diseases, ocean climate change, and more. Since the cause of the decline is not well understood, protective actions have been advised on precautionary grounds; first priority is to safeguard a minimum spawning stock that can produce strong new generations. In 2007, the European Council of Ministers (Anonymous 2007; hereafter referred to as the Eel Regulation) adopted a protection and restoration programme, setting a common objective and management target all over Europe (a minimum of 40% of the natural contribution to the spawning stock), and obliging Member States to implement an Eel Management Plan for their part of the shared stock. In the Baltic, all EU Member States implemented such a plan; in 2012, half of these countries reported on the status of their stock relative to their targets, while the other half – by lack of adequate data - reported on actions taken only.

Baltic cooperation: The eel stock in the Baltic constitutes an important part of the total European stock; the pre-amble of the Eel Regulation stresses the need to devote special attention to this area. Across the whole European distribution area, biological traits, habitat characteristics and exploitation patterns differ considerably (the prime argument for the country-by-country approach of the European protection plan). Within the Baltic area, stock abundance and anthropogenic pressures vary over orders of magnitude between habitats and latitudes. A special position is taken by the fishery on emigrating silver eel in the Straits between Denmark and Sweden, exploiting eels derived from the stocks scattered all over the Baltic region. In 2008, Eel Management Plans have been developed on a national basis without mutual coordination, applying a variety of assessment methods, often based on freshly started national data series. Neither has the parallelism amongst countries been capitalized, nor has the mutual interaction been assessed. We note that developing a comprehensive, integrated assessment for the whole Baltic is a challenging objective – irrespective of what tools and methods we will choose.

The governments cooperating in HELCOM aim for integration of their national plans. In 2010, a first Baltic Eel workshop was jointly organized by HELCOM and ICES. This workshop compiled an overview of available information on the eel stock in the Baltic. The post-evaluation of national Eel Management Plans submitted in summer 2012, however, progressed without coordination. The mutual interactions thus remained unquantified, and the national contributions to the urgently required protection of the shared stock are hard

to compare. Further integration among national management plans will require a uniform and integrated assessment, covering all major impacts.

As the 2009 Eel Management Plans and the 2012 post-evaluations have been developed by each of the Baltic countries separately, the level of societal debate and stakeholder involvement has varied between the countries. Aiming at an integrated eel management over the whole Baltic, the governance regime will change considerably.

Towards a unified assessment framework: The most recent assessments of the status of the eel stock in the Baltic countries were made in spring 2012, as part of the progress reports sent in under the Eel Regulation - using a variety of methods, providing partial assessments, extrapolating from local impact studies or assessing only hotspots - and for the many data-poor areas: no assessment at all. Standardised data collection has been initiated (related to the Data Collection Framework of the Common Fishery Policy, or to Water Framework Directive monitoring), but data shortage and high costs for monitoring of the scattered stock are the recurrent themes. Monitoring a subset (index rivers, hotspots) requires that local results are properly extrapolated to the whole Baltic area, taking into account the variation in local circumstances and in anthropogenic pressures between areas. The challenge for us is to develop a comprehensive, integrated assessment framework that requires moderate operating costs, while allowing for the whole 'fly-way'-management, covering all types of impacts. To this end, we aim at a high level of standardisation (between countries and habitats, but also over different impacts), and we will re-use locally acquired process knowledge to inter/extrapolate over data-poor areas. A special position is taken by the vast areas of low abundance, constituting a considerable, but hardly documented part of the total stock; and by the interactions between countries, where protective measures in one country can be annihilated by existing exploitation pressures in another.

Expected outcome: Probably the most prominent outcome of our project is a logistic break-through: combining inland surveys with coastal fish sampling, in cooperation between all Baltic countries, addressing fisheries/hydropower/birds/habitats in a multi-impact assessment, using nationally (e.g. Water Framework Directive) and internationally (e.g. fisheries' Data Collection Framework) coordinated data sampling as well as local experimental studies, addressing the whole range from field sampling to statistical model development and stakeholder-specific scenarios. This will result in a comprehensive, integrated assessment for the eel stock in the whole Baltic region, and a number of scenario studies selected in communication with stakeholders and governments. The database compiled for this project, the process analyses, the integrative statistical model, the scenarios – all will be made available in presentations, reports and publications.

International integration of eel management across the Baltic constitutes a new, international societal process, not analysed before. In this initial phase of integration, we contribute a descriptive study of international governance of the eel, and the analysis of some discourses that uniquely characterise the eel case.

Our challenge: The European eel is in decadal decline – only recently have actions been taken to protect the stock. On the continent, the stock is scattered over a multitude of habitats and impacted by a range of anthropogenic pressures. The development of assessment techniques for eel has only recently been undertaken – while there is an urgent need to protect the stock. We face a major challenge, a pressing time-schedule, in a complex field of application. Our project has the objective to develop a comprehensive, integrated assessment for the whole Baltic region and to analyse the added complexity of international governance. That is an ambitious task, for a restricted budget, within a limited time span.