BSAC Pelagic Working Group
04 November 2025
10:00 – 13:00 (CEST) online through Zoom

Report

1. Welcome by the Pelagic WG Chair Lise Laustsen

Lise Laustsen, the WG Chair, welcomed all the BSAC members, the European Commission, Member States and all other observers.

2. Formalities for the start of the meeting

Apologies, AOB, and adoption of the agenda
The agenda adopted.

Under AOB was noted a point by an NGO representative from Sweden, seeking an update on the AGRIFISH decisions on the fishing opportunities for the Baltic in 2026.

3. Genetics of the herring populations in the Baltic, *Dorte Bekkevold, DTU Aqua*

Dorte Bekkevold, DTU Aqua presented the development and application of DNA methods in herring advice and management[1]. Management areas of Atlantic herring stocks are often not aligned with biological units. A management area may support multiple populations with different genetic patterns, varying in distribution in time and space and underlying highly differentiated dynamics. These populations mix in feeding and spawning aggregations.
With the application of genetic characterization and monitoring of individual populations, we gain increasing understanding of changing dynamics, including effects of climate and human use. For example, the last several decades of dwindling recruitment in spring spawning herring in the Western Baltic Sea-Kattegat-Skagerrak could potentially be affected by a seeming changing balance between this population complex and an autumn spawning herring ecotype from the same area, that historically used to be dominating the fishery catches, and is not currently managed as a separate stock component. DTU Aqua has in collaboration with other scientific institutes built up a unique herring DNA database and has implemented genetic stock identification in data collection, allowing for a much deeper understanding of stock dynamics in time and space. However, to be fully efficient, methods need to be internationally integrated in data collection and stock assessment.
In medieval times, Baltic autumn spawning herring used to be a very important resource. The it disappeared due to overfishing. Research indicates that autumn spawning herring

[1] Past Meetings - Baltic Sea Advisory Council

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returns in some parts of Baltic and now dominates over the western spring spawning herring. Despite measures taken to limit the exploitation, the western spring spawning herring stock has not improved.
DTU Aqua is working together with Danish Pelagic PO in the framework of HERMIX project, aimed at developing new data series (also historical) to determine stock mixing in time and space. Geographical focus is on herring caught in the North Sea and Skagerrak (the include western Baltic spring spawning herring), but also include herring in the Western Baltic Sea. Two main objectives are to improve stock assessment data, and to improve the basis for real-time monitoring, through development and test of eDNA based tools that may allow for more optimal exploitation of strong stocks, while safe-guarding vulnerable stocks. HERMIX is carried out in coordination with other EU partners and ICES.
Experiments at larger scale, consisting of collecting and analysing samples from the fishery are planned.
Experimental procedure with eDNA methods was used for quantitative bycatch assessment of western Baltic spring spawning herring. The results of these experiments are not yet available.
Dorte Bekkevold referred to a new project on feasibility and effects of spatiotemporal closures on Baltic and Eastern North Sea herring stocks ('STC herring') coordinated by Dr. Nicolas Goñi (LUKE, Finland), planned for 2025-2028. The project aims at assessing effects of spatiotemporal closures on herring stocks in the Baltic and Eastern North Sea and will cover several Baltic herring populations. Stakeholders will be involved in the project from its early phase.

Discussion:

A fisheries representative from Poland asked whether the research of DTU Aqua also includes western spring spawning herring that spawns in the Pomeranian Bay.
Dorte Bekkevold confirmed that from genetic perspective the Polish population from the Bay of Pomerania is part of western Baltic spring spawning stock and it would be useful to analyse additional samples from this population.
A representative of the OIG asked when and at what scale the eDNA methods will be implemented in fisheries control. Considering the evidence for the existence of distinct herring populations, she asked about the possible implications of eDNA method on the management of herring populations.
Dorte Bekkevold stated that the results of experiments using the e-DNA method are very promising and hopefully the managers will accept this approach in the coming years. They have to be convinced that the method is robust and trustworthy. This process requires collaboration of stakeholders.
Another representative of the OIG asked about the time needed to analyse eDNA results and the financial implications. She also asked whether the new project includes mapping of spawning sites of different herring populations.
Dorte Bekkevold replied that DTU Aqua is testing a prototype of eDNA analysis and hopefully, the technology will soon be developed with adequate financial resources. The costs of sampling are not high and can be further decreased with larger quantities being analysed.

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As to the mapping of spawning sites, it is planned to be one of the outcomes of the project conducted by DTU Aqua.
An observer asked how the autumn spawning herring component is related to the central herring stock.
Dorte Bekkevold explained that in the stock assessment it has been assumed that that autumn spawning herring were present but had not been assessed separately due to the lack of genetic tools. They have in some data collection been assumed to be part of the North Sea herring population and in other collections assumed to be part of the central Baltic Sea herring population. She underlined that this potentially important population requires more attention and knowledge.
A fisheries representative from Poland informed that Polish researchers from Szczecin University found autumn spawning herring in the samples taken in the Pomeranian Bay. He asked whether the mixing of different herring populations has been quantified in terms of different stock components.
Dorte Bekkevold stated that different herring stock components can be quantified using new methods. So far, no one has tried to split the data to quantify the components of the mixed stocks in the Baltic Proper (only in the Western Baltic Sea areas SD 20-24). DTU Aqua plans to conduct pilot experiments in new project mentioned in the presentation. She added that herring in mixed stocks do not seem to hybridise and remain genetically separated.
A representative of DG MARE asked whether eDNA method can be used to detect and quantify different subpopulations as identification of different stock components would be useful for fisheries management.
Dorte Bekkevold confirmed that eDNA can be used to quite precisely detect different fractions of populations.
The WG Chair thanked Dorte Bekkevold for her presentation and invited her to one of the meetings of the Working Group to present the results of the new project**.**

4. Discussion on how to improve the data collection in the pelagic fishery –

- **Presentation by Nuno Prista, Swedish University of Agricultural Sciences**

Nuno Prista (in cooperation with Katja Ringdahl) presented 'Improving data collection in the Baltic pelagic fisheries'[2]. He gave an overview of the legal framework for data collection, including the Regulation (EU) 2017/1004 of the European Parliament and of the Council of 17 May 2017 on the establishment of a Union framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy. The main instruments in data collection are national and regional workplans for data collection. Wide spatial distribution of pelagic stocks requires shared responsibilities. According the current EU legislation on the Data Collection Framework, Member States shall coordinate their data collection activities with other Member States in the same marine region. In order to facilitate regional coordination,

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regional coordination groups (RCG) were established by the relevant Member States for each marine region. RCG aim at developing and implementing procedures, methods, quality assurance and quality control for collecting and processing data with a view to enabling the reliability of scientific advice to be further improved. The first regional work plan has entered into force in 2025[3]. Agreements on data collection are detailed in the workplan. These agreements include increased collaboration in the use of genetics in the different fields of data collection, ensuring comparable methods between regions (e.g., recruitment data series, effort calculations), uploading data to common database, participating in stomach sampling, ensuring that bycatch species are recorded when encountered during the sampling activities, prioritising development of recreational data in common database.

The regional approach in the Baltic started by focusing on the pelagic fisheries (as these are the core of biomass extracted from that areas). Agreements on pelagic commercial fisheries include coordinating sampling protocols and sampling effort, common sampling programmes where active trawlers targeting small pelagic are selected on a probabilistic basis for sampling of the unsorted catches including documentation of refusal and non-responses, common protocols of 3 kg / 50 fish per sample where ages and length are measured, uploading data to a common database.

Within the Baltic pelagic fisheries, the first agreements target the larger pelagic trawlers because these carry out the bulk of pelagic catches in the area. Smaller trawlers and passive gears are covered by national programmes.

Sampling in pelagic fisheries includes requirements on the minimum sample size (3kg) and minimum number of fish per sample for biological analysis (50/species), randomly selected. Collecting information on sex, maturity, stomach fullness, parasites and genetics of individuals is not mandatory.

After 2020, data collection in Sweden has been based on increased coordination with other countries (and leading to regional approach). Samples now taken in collaboration with the industry. Great attention is paid to vessel and trip selection. In 2024 approx. 4300 herring were sampled from the Baltic. Design-based catch estimates have been introduced. The information from logbooks is essential. Final estimates on catches, numbers-at-age/length, weight-at age/length are delivered to ICES Assessment Working Group (WGBFAS) every March and to STECF every June. Strong collaboration with the industry is maintained with weekly contacts and annual data reports submitted to fishers.

Nuno Prista concluded by underlining that in the future the regional coordination needs to be strengthened, probabilistic sampling is needed in all countries, vessel contact should be more automatic, sampling delivery should be optimised, data should be stored in international database, and the collaboration with the fishing industry should be further improved.

Discussion

[3] https://dcf.ec.europa.eu/wps-and-ars/work-plans_en

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A fisheries representative from Poland asked about the availability of data on the main year classes and whether the information obtained from samples is compatible.
Nuno Prista replied that in Sweden the data on year classes, including the age and sex is routinely provided from the samples collected in surveys. Survey data reflects what happens in the environment and fisheries. This data goes into the assessment. Agreements and workplans ensure that comparable methods are used in data collection. Every Member State pulls the data together and send it to ICES. The estimates are combined and included in assessment. More emphasis is now put on the quality of sampling.
An observer acknowledged the efforts put on sampling quality. He asked who can have access to the data obtained through the DFC.
Nuno Prista stated that the Data Collection Framework regulates the data collection for the EU countries. Access requirements are established under applicable EU law. Stakeholders need to be authorized by a particular Member State to access data.
A fisheries representative from Poland asked whether the operators need to do the sampling during landings if samples are collected onboard and for each haul.
Nuno Prista answered that in most Member States data is collected during landings. In Sweden data is collected onboard for each haul to preserve information on spatial resolution.
The WG Chair thanked Nuno Prista for his presentation. She underlined that the reports provided by the Swedish authorities to fishers on data provided during surveys are very helpful and such procedure could also be introduced in other countries.

5. AOB

The WG Chair informed that the BSAC Secretariat had asked the BALTFISH Presidency to give an update on AGRIFISH meeting on 28th October and decisions on Baltic 2026 TACs during the BSAC ExCom on 13th November. The Management Team will again request the Presidency for this update during the virtual coffee meeting on 7th November.
The meeting took note.

The WG Chair thanked all participants for good discussions.

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