

**BSAC Executive Committee Thursday 6<sup>th</sup> May 2021**  
**Afternoon session with ICES 14.00 -17.00 CET (tea break 15.30 -16.00)**

**Note from Secretariat**

Several members have sent questions to ICES. They are all at the end of this paper (from page 4). The Secretariat grouped the questions into themes. Given the time constraints, ICES has asked the BSAC to make a prioritised list. After consulting the BSAC ExCom chair, please find below the questions put into high priority, medium priority and low priority. This still means that all the questions are important to the BSAC and its members. If there are issues that do not get covered or covered fully, we will pursue this in writing.

**High priority questions**

**General question on the success of science-based management in the Baltic**

According to ICES, advice higher catches of larger fish could be expected in the long run. The reverse has happened. Considering the objectives, including the long-term ones, set 15-20 years ago, as well as the objectives set during the Johannesburg meeting, based on the MSY approach and the scientific advice based on these objectives, are these the results you have expected? Considering poor results obtained in relation to the advice received from ICES, is there a need to change the ICES approach to scientific advice by introducing alternative advice, which will put more emphasis on the problems / reasons concerning the growth rate, and on preserving and maintaining the right stock structure and size distribution?

**Multispecies**

Can ICES deliver a multispecies advice for pelagic stocks? And for demersal stocks? What would this mean in terms of TAC advice?

**Cod**

If 20-25 cm cod (some with eggs) turn out to be much older than so far estimated by ICES, and thus considered to be fish with a slow or very slow growth rate, should they be caught, or should they continue to be protected by means of the fishing gears? Is increasing / maintaining selectivity at current levels actually beneficial in terms of population and stock dynamics? Do selective fishing and reduced effort lead to the symptoms seen in the Baltic cod, such as stunted or slow growth, parasites and high mortality of the growing fish?

**Herring**

**WBSS herring:** This remains a concern for the BSAC. Has ICES got any updates on advice on the management of western Baltic herring This includes the herring stocks WBSS SDs 20-24 and eastern part of subarea 4.

**Central Baltic herring:** will ICES adjust its advice to reflect the fact that there are two sub-populations? <sup>1</sup>

### **Herring with sprat**

Latest research reveals genetic sub-populations and the changes of the size and age structure of herring within SDs 30-31. Given this, does ICES have plans for improving of the advice for the herring and sprat fishery? Will ICES aim to make sensitivity testing on modelling sprat-herring catches?<sup>2</sup>

### **Salmon**

Last year's special advice on salmon management indicated that the current regime of considering Baltic salmon as one stock and setting a global TAC is wrong, that it risks weaker stocks etc. Is there now enough data to move from mixed stock fisheries to management based on individual rivers? Can river targets be set, with a target for the amount of returning salmons as a complement, and link them to the potential smolt production?

### **Eel**

Can ICES clarify its recommendations in relation to the re-stocking of eel? Does it contribute to recruitment?

### **Medium priority questions**

#### **Wider ecosystem considerations**

Has progress made in the stock assessments in the light of regime shift and climate change (reference and target values, age readings of cod) and increasing natural mortality of fish (especially cod) caused by predation by cormorants and seals?

#### **Cod**

Anticipating the advice for next year, does ICES consider removing its zero catch advice in SDs 25-26 for 2022?

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<sup>1</sup> Sent by Fisheries Secretariat: A combination of genetic and phenotypic characterization of spring- and autumn-spawning herring suggests gene flow between populations. Berg et al ICES Journal of Marine Science 29.2.20 AND Ecological adaptation in Atlantic herring is associated with large shifts in allele frequencies at hundreds of loc. Fan Han et al eLife 14.12.20

<sup>2</sup> Sent by European Anglers Alliance: Biocomplexity in a highly migratory pelagic marine fish, Atlantic herring, Daniel E. Ruzzante et al Proceedings of the Royal Society 21.2.2006

## **Least priority questions**

### **Climate change**

There is also the challenge of **climate change**. How will ICES start including climate change vulnerability to stock assessment or other advice related to management options?

### **Cod**

Cod in SDs 25-32 and SD 24 is taken as a bycatch. Different MS are applying different bycatch rules. What is the opinion of ICES on this?

### **Eel**

Does ICES have an opinion about there being different 3 month periods with a ban for eel fishing in the different MS?

**Note: Here are ALL the questions/issues raised for ICES by themes (including who asked the questions at the end of the questions)**

### **General**

How is the cooperation with Russia and the data exchange? **(German Angling Association DAFV)**

### **Ecosystem and environment and climate**

Has progress been made to solve the problems of stock assessment in the Baltic, in the light of regime shift and climate change (reference and target values, age readings of cod) and increasing natural mortality of fish caused by predation by cormorants and seals? **(German Cutter and Coastal Fishermen)**

### **Ecosystem with respect to cod and stickleback**

As we all know, the damage to the cod population caused by seals poses a serious threat of extinction. For years, this has only been debated, but no concrete decisions have been taken, and time is not on our side. It has been repeatedly emphasized that the deterioration of the state of cod stock in the Baltic Sea is not due to the fish caught by fishermen, but to various environmental factors, of which seals are the main cause of damage.

Another problem is the growing population of stickleback. According to available data, the current population of stickleback is about 16% of the Baltic Sea biomass, and is likely to increase. It is having an increasing negative impact on the Baltic Sea ecosystem, but this is being ignored by responsible organisations. The stickleback competes for food with sprat and herring. It also feeds on fish eggs, including cod eggs. As with seals, time is not our ally, and if no decisions are made, then in 5-7 years we will only have a sea of seals and stickleback. And when cod is completely gone, after some time there will be no seals left and we will only have a sea of stickleback and bans. In our opinion, these 2 problems are not being solved. And by doing something to solve them we could say, that we are making some steps towards cod protection plan.

Taking this opportunity, we want to ask what is going to be done to solve the above problems? **(The Confederation of Fishermen and Fish Processors of West Lithuania)**

How will ICES work with ecosystem-based management and its practical implementation in the advice setting? For example, clear multispecies advice setting and the use of the precautionary principle? **(The Fisheries Secretariat)**

ICES has noted in its Strategic Plan<sup>3</sup> and science priorities the challenge of climate change. How will ICES start including climate change vulnerability to stock assessment or other advice related to management options? For example, are there plans to make mid to more longer-term scenarios pointing to management options that should be considered already today in relation to fisheries, technical rules etc? **(Coalition Clean Baltic)**

### **Questions on the success of science-based management in the Baltic**

1. If 20-25 cm cod (some with eggs) turn out to be much older than estimated by ICES so far, and therefore are considered as fish with a slow or very slow growth rate, should they be caught, or should they continue to be protected by means of the fishing gears?
2. Do you think that increasing / maintaining selectivity at current levels is beneficial in terms of population and stock dynamics? Should the sigmoid be moved to the left to reduce L50 and at the same time increase the fish size range of the fish caught, while maintaining the selectivity control through a selectivity range? In this context, is the decrease (stunting) of the individual size of herring, observed for at least 30 years also the result of selective effect of the fishing gears?  
I would like to remind you that in 1975-1980 the MLS for cod was 30cm and the mesh size was 90mm, in 1981-1986 the MLS was 30cm and the mesh size 95mm, in 1987-1989 the MLS was 32 cm and the mesh size 100mm. What was the size distribution of cod in this period?
3. Research entitled ***Fishing directly selects on growth rate via behaviour: implications of growth-selection that is independent of size*** published in *The Royal Society Publishing*<sup>4</sup> made by Australian scientists says that „size-selective harvest of fish and crustacean populations has reduced stock numbers and led to reduced growth rates and earlier maturation”.  
Do you agree that by fishing only the biggest fish from one year class, which in behavioural terms are characterised by the greatest feeding activity, we create a situation in which only fish characterised by lower feeding activity and thus smaller size are protected?
4. According to ICES advice higher catches of larger fish could be expected in the long run. Actually, the contrary has happened.

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<sup>3</sup> [https://issuu.com/icesdk/docs/ices\\_strategic\\_plan\\_2019\\_web](https://issuu.com/icesdk/docs/ices_strategic_plan_2019_web)

<sup>4</sup> <https://royalsocietypublishing.org/doi/10.1098/rspb.2014.2283>

The link takes you to the abstract of this article published 7th March 2015, by Peter A. Biro and Portia Sampson. Note: copyright The Royal Society

Considering the objectives, including the long-term ones, which had been set 15-20 years ago as well as the objectives set during the Johannesburg meeting, based on the MSY approach and the scientific advice based on these objectives, are these the results you have expected? Since the European Commission is the main beneficiary of your advice, I would like to address the same question to the Commission.

5. Considering poor results obtained in relation to the advice received from ICES, do you think that you need to change your approach to scientific advice by introducing alternative advice, which will put more emphasis on the problems / reasons concerning the growth rate, on preserving and maintaining the right stock structure and size distribution?
6. Do you consider that selective fishing and reduced effort lead to the symptoms seen in the Baltic cod, such as stunting, slow growth, parasites and high mortality of the growing fish?
7. Why did the problems mentioned above not exist in the past when meshes were smaller, fishing pressure much higher and the situation had been considered as “overfishing”? **(National Chamber of Fish Producers, PL)**

### **Multi-species advice - general and again to stickleback**

#### **Questions:**

What is needed for ICES to be able to give multispecies fisheries advice for the Baltic Sea?

What is needed for ICES to be able to give fishery catch advice for stickleback in the Baltic Sea?

#### **Background:**

There have been major changes in recent years in the Baltic Sea marine ecosystem – changes in species compositions, abundances and species interactions.

Since the 1990s, fish stocks in the Baltic Sea have changed from many large predatory fish, especially cod, pike and perch, to today being dominated by smaller so-called prey fish, especially sprat, herring and stickleback.

This development in the Baltic Sea has recently been described e.g. in the international scientific journal Nature in an article entitled “A spatial regime shift from predator to prey dominance in a large coastal ecosystem” (Eklöf et al 2020). Read the article [click here](#).

There is a need for improved scientific ICES advice on how to improve the Baltic Sea ecosystem. For example, can fisheries on sticklebacks and sprats help improve the ecosystem health and give a better balance between prey abundance (stickleback and sprat) and predator abundance (cod, pike, perch) in the Baltic Sea? **(Marine Ingredients Denmark)**

If requested to do so, could ICES deliver a multispecies advice for e.g. cod, herring and sprat (perhaps include also plaice), and could ICES include wider ecosystem considerations such as potential effects the open sea fisheries have on the coastal ecosystem? **(Coalition Clean Baltic)**

## **Cod**

Does ICES consider removal of the cod restriction in areas 25-26 of the Baltic Sea for 2022? **(Association of Recreational Fishing Ships SAJKS)**

What is ICES opinion about the different bycatch-rules for cod in the different MS?

Why, for example, does SW have a 20% bycatch and DK a 40% bycatch when fishing other species than cod? It makes it almost impossible to carry out a profitable fishery. Should we instead be looking at the state of stock and not be following the bycatch decision on cod? At this rate, the small-scale fishery will soon disappear. **(Swedish Fishermen PO)**

Does ICES include the amount of fish that are caught by seals and the negative influence through the distribution of parasites from them with an influence on the health of cod through liver worm in connection with starved cod into their calculations for the forecast of the cod stock condition and the possible recovery under this conditions in the Baltic Sea?

What are the influences of these facts for the TAC advice for the fishery in general?

Is there any advice to deal with these problems? **(The Association of Fisheries Protection (Germany))**

## **Herring and sprat**

Does ICES have plans for improvement of the advice for the herring and sprat fishery after the latest research concerning genetic sub-populations and the changes of the size and age structure of herring within SDs 30-31? What would ICES like (both questions to them and research) to be able to give better advice within SDs 30-31 for herring and sprat? **(European Anglers Alliance)**

Will ICES aim to make sensitivity testing on modelling sprat-herring catches, e.g. how recommendations on TACs would change if sprat or herring catches were 25% higher or 25% lower than reporting indicates? **(Coalition Clean Baltic)**

## Herring specific

Why did ICES manage the western Baltic herring in the spawning territories (Bay of Greifswald), but not in the water before and after this time (Kattegat/Skagerrak)? There are no quotas. **(German Angling Association DAFV)**

In light of the recent research showing that the central Baltic herring population is comprised of two sub-populations, will the scientific advice be adjusted/divided to account for each one? Or at least how is this discussed within ICES and what does the future look like? **(The Fisheries Secretariat)**

## Salmon

What is ICES opinion on whether we have enough data on the genetics of different salmon stocks in the Baltic to move from mixed stock fisheries to management based on individual rivers? ICES has recommended repeatedly to stop mixed stock salmon fisheries and to target fisheries only on stocks which are strong enough (at or above MSY level) to be fished. Do we need more genetic studies to allocate fisheries on right places and stocks, or is data already there to do this in a proper way? **(WWF)**

Can ICES deliver advice on a stock by stock basis for salmon, as in, can individual river targets be set with for example a target for the amount of returning salmons as a complement and link to the potential smolt production?

Last year's special advice on salmon management indicated that the current regime of considering Baltic salmon as one stock and setting a global TAC is wrong, that it risks weaker stocks etc. Will the ICES advise change in light of this? **(Coalition Clean Baltic)**

## Eel

What is ICES opinion about there being different 3 month periods with a ban for eel fishing in the different MS? **(Swedish Fishermen PO)**

There seems to be confusion around the actual contribution to eel recruitment of the so-called re-stocking of glass eel. Could ICES further clarify recommendations in relation to the re-stocking of eel? **(Coalition Clean Baltic)**