Technical solutions to reduce unwanted catches of cod in the Baltic Sea fisheries

Hosted by BALTFISH/ DTU Aqua/ BSAC
Monday 30th November 2020 13hrs -16hrs
Virtual via Zoom

1. Welcome and introduction to the workshop (Kaire Martin, BALTFISH presidency).

Nis Christensen from the Danish Ministry of Food, Agriculture and Fisheries chaired the meeting. He welcomed all the participants. The meeting was attended by 60 participants – experts, BSAC members, Member States, Commission representatives and different organisations.[1]

Kaire Martin representing the BALTFISH Presidency welcomed all participants on behalf of the BALTFISH Presidency. She noted that the workshop is a sign of good cooperation between the Baltic Sea Advisory Council, Danish National Institute of Aquatic Resources (DTU Aqua) and BALTFISH. She stated that the number of participants confirms the importance of the workshop, and its objective: to introduce more selective fishing gear in the Baltic Sea in the near future. She underlined the urgency of the matter due to the poor situation of the eastern Baltic cod population.

Kaire Martin made it clear that BALTFISH really appreciates the cooperation with the BSAC. She recalled the workshop held in January 2018 on recreational fishery, organised together by BALTFISH and the BSAC. She underlined the importance of close co-operation, because both BALTFISH and the BSAC focus on the same issues, and seek sustainable solutions for the fisheries in the Baltic Sea. For this task, it is also important that the scientists provide the best available scientific background for new gears. She appreciated the presence of the scientists from the Thünen Institute in Germany, SLU Aqua in Sweden and DTU Aqua in Denmark at the workshop to present their work on gear development.

She referred to the fact that the workshop will focus on selective gears, but from a different angle. The previous Joint Recommendations of BALTFISH[2] focused on gears that improved the size selection of cod. Now, the focus should be on species selectivity.

She noted that the situation of Baltic cod stocks, in particular the eastern cod stock, has worsened. Since late July 2019, directed fishing on eastern cod has been prohibited, and now it is only allowed to be caught as a bycatch. The poor situation of the cod has become the driver for shifting focus to gears that can reduce as much as possible bycatches of cod in the flatfish fisheries in the Baltic.

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[1] Participants list on website: http://www.bsac.dk/Meetings/BSAC-meetings/Workshop-on-Technical-solutions-to-reduce-unwanted

[2] COMMISSION DELEGATED REGULATION (EU) 2018/ 47 - of 30 October 2017 - authorising the use of alternative T90 trawls in Baltic Sea fisheries, by way of derogation from Council Regulation (EC) No 2187 / 2005 (europa.eu)

For that reason, already back in February this year, the Commission strongly encouraged BALTFISH to discuss and prepare a Joint Recommendation for more selective gears that target flatfish and avoid cod. BALTFISH has taken this onboard. BALTFISH is currently discussing the first draft Joint Recommendation on a selectivity device that significantly reduces the catch of cod to allow the use of the so-called roofless trawl, which was developed by the Thünen Institute. As soon as agreement is achieved, it will be sent to the BSAC for comments. It is also important that the scientists provide the necessary best available scientific background for introducing new gears. Kaire Martin stated that the scientists are expected to deliver new information on selective gears. She underlined that the process of developing and implementing of new/more selective gears in the fishery should be streamlined. She expressed the hope for a fruitful and constructive dialogue.

The Chair underlined that the presentations will be followed by a discussion focusing on what measures can directly be applied by the industry, and what need to be further developed.

2. State of Baltic cod and measures taken to ensure its sustainability (Marie Storr-Paulsen, DTU Aqua, Denmark)

Marie Storr-Paulsen, DTU Aqua, Denmark presented the state of the Baltic cod and measures taken to ensure its sustainability[3]. She referred to the currently very high natural mortality of eastern Baltic cod, which is up to 6 times higher than the fishing mortality. Data from the trawl surveys indicates that cod is getting smaller every year and mature at a smaller size. It is estimated that only 5% of the eastern cod population is larger than 65 cm. Lack of oxygen, lack of food (small crustaceans), and the increased grey seal population are the reasons for low growth and high natural mortality. Lack of oxygen affects the metabolism of cod, as well as benthic organisms on which cod feed. Oxygen-deficient areas have been increasing over the years. Despite a decrease in the nutrient input, the problem of oxygen deficiency persists. There is also a problem with availability of fish prey for the cod, mainly sprat which has changed its distribution further to the north east. The population of grey seals has grown and has an impact on cod not only through predation, but also through the indirect effect of parasites. Marie Storr-Paulsen underlined that it is difficult to quantify the effect of all these different factors on the cod stocks. The condition of cod continues to deteriorate. Management measures taken to improve the state of the Baltic cod include closed areas, closed seasons, bag limits in the recreational fishery and a ban on targeted cod fishery in 2019. There might be a need for other measures.

Questions and answers

A representative of Polish fishermen referred to the fact that the mesh size in the fishing gears had been increased several times in recent years to increase selectivity and let more small fish escape through the meshes, while increasing the pressure on large fish.

[3] Presentation on website http://www.bsac.dk/Meetings/BSAC-meetings/Workshop-on-Technical-solutions-to-reduce-unwanted

In a longer perspective, the wrong management policy has led to lower catches and a weak cod stock, composed of small fish, with a decreased growth potential.
He asked whether selective removal of cod that reduces the intra-specific competition between the age and size groups could be applied to eastern Baltic cod.

Marie Storr-Paulsen replied that although this theory is supported by some scientists, it does not explain why the cod is thin and shows reduced growth potential. So there are other factors than selective removal behind the bad condition of the cod.

3. **Gear based technical solutions developed to reduce the capture of cod (Jordan Feekings, DTU Aqua, Denmark)**

Jordan Feekings, DTU Aqua, Denmark, presented the gear based technical solutions[4] developed to reduce the capture of cod. He mentioned two legal gear solutions available in the Baltic: T90 and BACOMA. Both codends were developed to size sort the target species (cod) with BACOMA using a selectivity panel. He presented the history of selective devices in the Baltic. The selectivity of the gears has increased over the years (increase of L50). All modifications have been directed towards increasing the size selectivity of cod. Now, however, cod has become a bycatch species in a flatfish directed fishery. New solutions are required to avoid the capture of cod. These solutions include changes to the codends, changes to the trawl design, changes to the fleet behaviour, or a combination of all three. DTU Aqua has recently tested a solution for the Skagerrak/ Kattegat *Nephrops* fishery that could also be of relevance to the Baltic flatfish fishery. It is constructed in a four panel extension/codend with a large diamond opening in the upper panel to allow cod to escape. The diamond shape opening ensures that tension throughout all four panel sections is equal, and it removes the need for additional floats or weights. A high retention rate (75%) of plaice and low retention rate of cod (25%) were demonstrated. The design could be further improved by means of cheap and easy options such as a Flip Flap grid. This, in conjunction with a diamond opening, showed to have an even lower retention rate of cod. Both are good options to reduce catches of cod in flatfish directed fisheries, and are easy to control. Another option is a topless trawl with large meshes used in the top sheet to allow round fish to escape through the meshes. The cod bycatch in the flatfish fishery can also be reduced by changing the fleet behaviour. Cod fishery typically takes place during the daytime. Targeting flatfish at night could potentially reduce cod bycatch. A combination of all the proposed options could at the same time reduce the chance of encountering cod, and reduce the probability of cod entering the trawl and the codend.

Questions and answers

An OIG representative asked for clarification on the point mentioned by Jordan Feekings about an increase in seabed contact, and asked whether this results in an increase in seabed impact. Jordan Feekings explained that topless trawls have been shown to increase catches of flatfish, and this may be partially due to a reduced uplift of the gear and subsequently better seabed contact.

[4] Presentation http://www.bsac.dk/Meetings/BSAC-meetings/Workshop-on-Technical-solutions-to-reduce-unwanted

He explained that this does not necessarily mean the seabed impact is increased, because the increase in catch rates may offset the increase in bottom contact, e.g. the effort required to catch a species quota is less. Increased catches of flatfish were noted in some trials due to better bottom contact when using a topless trawl.

The OIG representative also asked for clarification on the ratio of plaice to cod catches with the modified gears.

Jordan Feekings replied that it is not possible to interpret the graph in that way. Daniel Stepputtis clarified that this related to catch efficiency, not catch share.

Replying to a question put forward by **a fisheries representative** on the behaviour of cod during nighttime**,** Jordan Feekings explained that cod lifts off the bottom at night to predate; therefore its catches with bottom trawls are higher during daytime.[5]

Another fisheries representative asked about the effects of hydrodynamics on the trawl. Jordan Feekings welcomed this question, and replied that there is no data on the hydrodynamics around the trawl.

A representative of Polish fishermen drew attention to research conducted in Poland by Professor Piotr Nowakowski from the Maritime Academy in Szczecin[6]. The use of an innovative bag (Ultra Cross 120 mm mesh) and innovative devices reducing the speed of water flow (tarpaulin diffusers and net confusers 120 mm) significantly reduce the amount of undersized cod (<35 cm). A standard T90 codend, without innovative devices reducing the speed of water flow, retains 16.85% of undersized cod, while the innovative codend with innovative devices reducing the speed of water flow (two tarpaulin diffusers and two 120 mm net confusers), retains only 1.23% of undersized cod, which means 13.6 times less, and the innovative codend with innovative devices reducing the speed of water flow (one canvas diffuser and one 120 mm net confuser) retains 3.58% of undersized cod.

4. Gear based technical solutions developed to reduce the capture of cod (Daniel Stepputtis, Thünen Institute, Germany)

Daniel Stepputtis, Thünen Institute, Germany presented the work[7] carried out during the past 18 months by the Thünen Institute on gear based technical solutions to reduce the capture of cod. He referred to the letter from the EU Commissioner sent at the beginning of 2020 on the dire situation of the eastern Baltic cod stock and the need to reduce by-catches of cod as much as possible and encouraging BALTFISH to prepare a Joint Recommendation.

[5] http://www.bsac.dk/getattachment/Meetings/BSAC-meetings/Workshop-on-Technical-solutions-to-reduce-unwanted/Diel-variation-in-the-catchability-of-gadoids.pdf.aspx?lang=en-GB

[6] The information on this research is not available yet. There ishope to hold a conference in May 2021 to present the results.

[7] Presentation http://www.bsac.dk/Meetings/BSAC-meetings/Workshop-on-Technical-solutions-to-reduce-unwanted

The work presented on gear based technical solutions is a direct response to the poor state of Baltic cod and the result of work from July 2019 to March 2020. It is available as a report[8], already submitted to BALTFISH in April 2020.

The presentation by Daniel Stepputtis gave an update to this report with the work conducted until December 2020, and which delivered further options to reduce the bycatch of cod. In the early stage of the work, four different strategies were identified that could potentially reduce bycatches of cod: 1) alternative codend designs, 2) modifications in the forward sections of the trawl (front section and extension piece), 3) fishing strategies, and 4) combined strategies. Since July 2019, the research in Germany has focused on strategies 1), 2), and 4). Strategy 3) was not discussed in the presentation, as this strategy is rather vague.
The aim of the presentation was to: a) identify clear advantages/disadvantages for all options, and b) quantitatively compare the different options as the basis for easy decisions.

Strategy 1 (codend modification) explored opportunities to reduce cod by-catch in the codend by mechanical means (changes in netting configuration) without compromising the catchability of sized flatfish species. The work started with the comparison of available codend designs (also described in the report). Based on these results, the use of T90 codends seems most promising in order to achieve the goal of high escapement of cod in conjunction with high catchability of flatfish, although the design could be improved.
One of the working premises during the design of alternative codends was to keep the simplicity and economic affordability of the current designs. Under this premise, the potential of three simple modifications to the mandatory T90 ≥120 mm codend was identified. The modifications considered were: a) increase of mesh size from ≥120 mm to ≥125 mm and ≥135 mm, b) alter codend construction from 2-panel (2P) to 4-panel (4P), and c) the reinforcement and shortening of codend selvedges by using lastridge ropes (LR). A total of 8 experimental T90 codends combining the listed design modifications were tested in October-November 2020, on German fishing grounds within ICES SD24. Mounting lastridge ropes on a 2 panel T90 ≥125 mm codend (T90_125_2P_LR) led to a great improvement in the escape probability of cod, together with a slight increase in the retention power on flatfish. Similar results were found when applying lastridge ropes to a 4-panel construction (T90_125_4P_LR), although the latter design could potentially make the codend selectivity more stable and less dependent with respect to catch weight. Decision plots were showed during the presentation in order to compare the performance of the eight T90 codend designs recently tested with other designs developed in the past for similar purposes, and with the current mandatory codends. Such plots revealed the T90_125_2P_LR and the T90_125_4P_LR codends to provide the best trade-off between bycatch reduction of cod and sized flatfish catchability. As the (small) catch loss for flounder and plaice is mainly ascribed to size classes just above 25cm, the catch loss is negligible for flatfish above 27cm.

Strategy 2 a (modification of extension piece). The following selectivity devices have been developed and tested since 2019: (1) CODEX (COD EXcluder): A guiding panel in the

[8] Thünen-Institut: 404 (thuenen.de)

extension of a trawl guides cod towards an escape opening. (2) ROOFLESS (in various configurations): The top panel of the trawl extension was removed to build a large escape opening (175 cm, or 330 cm long) – similar to the design presented by Jordan Feekings. Additionally, configurations of ROOFLESS with stimulation ropes (STIPED) were tested.
Tests on ROOFLESS-175 resulted in the best compromise between cod reduction (~75%) and flatfish catch efficiency (not statistically different to paired standard trawl). As no/very little length dependence in the escapement for cod was found for ROOFLESS, the suitability of this concept does not depend on the population structure (in contrast to codend modifications). Moreover, the construction of the device is rather simple and thus easy and cheap.

Strategy 2 b (modification of front section of the trawl). Different modifications were discussed (including the topless trawl). However, it was concluded that the disadvantages (results very variable, expensive, hard to control) outweigh potential benefits.

Strategy 4. The catch efficiency of the alternative codends introduced in the presentation (Strategy 1) and the ROOFLESS device (Strategy 2a) were combined to theoretically assess what would be the maximum catch reduction of cod in the case of combining the different approaches (see last slide of the presentation for a clear overview). The combination of ROOFLESS-175 and the T90_125_2P_LR codend could lead to a catch reduction of cod of ~90% relative to catches that would be expected when fishing with a standard BACOMA codend.

Questions and answers

An OIG representative thanked Daniel Stepputtis for a very good presentation and asked whether the trials had only been carried out in SD24. What would the results be if carried out further east?

Daniel Stepputtis replied that the most recent results come from trials carried out in SD 24, where the data had been gathered. But the same pattern had been observed before, also in other sub-divisions. Applying T90 gave a much better escape of cod and retention of plaice. As the codend-selectivity is size dependent, the actual numbers may change, but the absolute magnitude was most relevant. If required, it is easy to calculate the effect for other population structures.

A fisheries representative expressed the view that fish behaviour plays a more important role in decreasing the by-catch than mesh size selectivity. He was more attentive of the topless trawl. He noted that an increase in the mesh size increases the pressure on large fish.

Daniel Stepputtis stated that modifications of the codend take into account both the fish morphology and the fish behaviour. The behaviour of the fish can be influenced, for example by cutting the roof of a codend. They have gained a greater understanding of the fish behaviour. The mentioned solutions make use of behaviour and morphology.

Jordan Feekings noted that the modifications to the codend cannot be legally implemented, whereas the modifications to other parts of the gear are allowed by the rules. He expressed the hope that managers will take onboard some of the material presented today.

According to **a representative of Polish fishermen,** most recent observations by fishermen and processors indicate that the condition of the cod has improved. Cod is thicker and this can be proved by higher efficiency of fileting. However, cod in the eastern part of the Baltic is still small and the use of a large mesh size could make the fisheries unprofitable.[9] He asked whether the trials carried out in SDs 25-26 had included a T90 codend with a mesh size of 120 mm.

Daniel Stepputtis replied that cod selectivity trials were conducted in the eastern and western part of the Baltic. There was a substantial difference in the size of cod in the eastern and western parts. The bycatch reduction is related to the population structure. The aim is to reduce the bycatch of cod to a minimum. When recommending the mesh size, a compromise must be found between the need to protect the cod and maintain the economy in the fishery, whereby flatfish can be caught.

5. **Gear based technical solutions developed to reduce the capture of cod (Hans Nilsson, SLU Aqua, Sweden)**

Hans Nilsson from the Swedish University of Agricultural Sciences (SLU Aqua) presented the work carried out by the Swedish University in cooperation with fishermen to improve selectivity in the cod trawl fishery.[10] The project called "The Secretariat for Selective Fishery" started in 2014. The ICES report on eastern Baltic bycatch in non-targeted fisheries[11] had provided the background to the work. There are two key factors which can be investigated with respect to species selectivity: escape behaviour and the shape factor of the fish between round and flat. The project had two main phases: a development phase, in which fishermen tested and modified their prototype gear on their own, and an evaluation phase, in which scientists studied the effectiveness of the gear. It covered gear trials with a modified T90 codend (which was developed in order to optimize the catch of cod, and which is not the current aim of the research work).The solutions recommend a new T90 codend design with a mesh size of the codend at least 115 mm, the number of meshes in any circumference in the codend 80 meshes round, and a length of the codend at least 9 metres. The specifications of an alternative model of the T90 were suggested by fishermen, on the basis of their experience. Hans Nilsson referred to the fact that ICES was asked to establish different scenarios and estimate their respective effects on the level of unavoidable bycatches in fisheries not targeting eastern cod (plaice, flounder).
A new project was initiated in 2020. The main questions put to the managers are:

- What is the adequate cod bycatch reduction?
- What kind of cod do we want to save?

[9] Daniel Stepputtis has commented that: There is NO way to argue that the cod fishery in the eastern Baltic is unprofitable due to higher selectivity. The agreed goal is to avoid any catches of cod. The quota given is only a bycatch quota in order to ensure that all fisheries do not close.

[10] Presentation http://www.bsac.dk/Meetings/BSAC-meetings/Workshop-on-Technical-solutions-to-reduce-unwanted

[11] http://www.ices.dk/sites/pub/Publication%20Reports/Expert%20Group%20Report/acom/2019/Ad%20Hoc/ADHOC_EBC.pdf

It was important to know what the managers were thinking. Different gears can provide different answers.

There were no questions to the presenter.

The Chair noted that an impressive amount work on technical solutions to reduce unwanted catches of cod has been going on. He underlined that the results of this work should be taken to a higher political level through the capable hands of the BALTFISH Presidency.

6. Discussion - what measures can be directly applied by the industry, and what need to be further developed?

The meeting discussed whether some measures can be directly applied by the industry, and what needs to be further developed, possibly under research exemptions. The following questions were put to the meeting:

i) **Selectivity trials.** Is it necessary to have further selectivity trials? If so, what gears should be tested? Could multiple vessels test these selective devices in parallel? Under the technical measures regulation (2019/1241) it states that up to six vessels can test technical measures without having to seek the advice of STECF.

ii) **Joint Recommendations.** Germany has recently presented a JR to BALTFISH for the ROOFLESS gear. Should additional JR's be drafted for some of the other alternatives present during the workshop?

iii) **National cod plans.** National cod plans have been swiftly introduced for North Sea/ Skagerrak, and Kattegat. Is it not possible to undertake a similar process for the Baltic?

iv) Which of **the above-mentioned options** will be most efficient and can be quickly set in motion in order to reduce the fishing pressure on the Eastern Baltic cod stock while ensuring fishing for other stocks can continue?

A fisheries representative thanked the scientists for the overview of the work carried out in different Member States. He noted that the Danish fishermen would like to investigate these interesting technical solutions. However, the present legislation does not allow them to use some gear modifications on commercial vessels. He made an appeal to the decision-makers to change the rules and allow fishermen to use the proposed options. He pointed out that none of these proposed modifications results in selectivity characteristics for cod that are worse than those in the gears currently used. He underlined that it is too early to pick one or two compulsory options. All proposed modifications should be tested by fishermen in the commercial fishery. The final decision on which option(s) to choose as compulsory should be taken after the trials have been done in the commercial fishery.

An OIG representative agreed that the current gears are not an option. BACOMA was designed to meet challenges which no longer exist.

He expressed the view that further selectivity trials should definitely be carried out with the proposed selectivity devices, taking into account that the end goal is to avoid bycatches of cod. Potential side effects of these devices should be assessed. New devices should be tested and verified.

He underlined that the current technical rules do not regulate the fishing time (day/night), but they could. Any changes in these rules should be discussed, as these provisions are almost more important than the gears, since they can be initiated much faster than approving new gears.

The BSAC Honorary Chair underlined the importance of the workshop considering the present situation of the Baltic cod stocks and fisheries. He thanked the organisers for their efforts. Referring to the lengthy legislative process, he stated that the work on developing selective gears should be speeded up. The goal should be to implement the new gears as soon as possible. He proposed that BALTFISH, the BSAC and all participants at this workshop agree on a recommendation on the need to continue the selectivity trials in the Baltic. Such a recommendation would make it possible to obtain funding for such trials. Testing of new devices should be carried out on fishing vessels with scientific observers in order to gather sufficient scientific background. The scientific background was essential to get approval from the STECF evaluation.

Referring to the presentation made by Marie Storr-Paulsen, he noted that the ratio between cod and sprat population density is more important than the spatial distribution of sprat. Sprat eats cod eggs and therefore has a negative impact on the spawning success of cod.

A representative of the NGO acknowledged the aim of this workshop, which was to find technical solutions to avoid cod bycatch, and its urgency as a short-term mitigation. However, the negative impact of bottom trawling should also be mentioned. She pointed to other issues that need to be considered, and referred to the WWF report on bottom trawling. She asked BALTFISH and the BSAC to consider ecological aspects and not only the socio-economic impact.

A representative of German small-scale fishery underlined the need to test the proposed modifications in practice, and on commercial vessels. He noted that engine power of a vessel can have an impact on selectivity.

A fisheries representative warned of the dangers of falling into a science trap. He stated that there is a need for a practical approach. He referred to the problems in finding the scientists ready to take part in the commercial operations. Given the urgency of the matter, further trials should not be solely scientific experiments, but rather practical tests. He underlined the need to focus on selectivity of new technical solutions so as to permit the fishermen to continue fishing and to survive.

Jordan Feekings confirmed that several trials have been carried out without scientists onboard during the initial development phase. Fishermen collect the data in the trials and provide it to the scientists later. This preliminary data is then used to determine whether a full scientific trial should be carried out. This can be set up relatively quickly.

A representative of Polish fishermen underlined that fishermen and net makers often have easy and cost-effective technical solutions, which also need to be tested. The existing legislation prevents them from using these modifications in practice.

An OIG representative asked whether some modifications such as the topless gear are allowed by the current rules.

Jordan Feekings confirmed that modifications applied to other parts of the gear than the codend are allowed by the rules and are legal.

Daniel Stepputtis stated that although such modifications as the topless gear are not forbidden by the Technical Measures Regulation, the trial results of the different trials are contradictory.

A representative of DG Mare asked whether the engine power of vessels has an impact on the selectivity pattern of the gears.

Another representative of DG MARE explained that BACOMA and T90 are the baseline gears in the Baltic. There is no prohibition on using a greater selectivity in the gear. He informed the meeting that the implementing rules for the technical regulations are currently under preparation. The BALTFISH Joint Recommendation on technical solutions to reduce the bycatch of cod is necessary take further legislative steps and should be agreed upon as soon as possible.

The representative of the German authorities thanked the scientists for their great efforts in finding the technical solutions to reduce unwanted catches of cod. He noted that selectivity trials should be continued, with the scientists involved. He warned against falling into the science trap; the Joint Recommendation can be prepared on the basis of the work done so far on selectivity devices, since they have been extensively tested. The decision on which technical solution should become mandatory should be taken at a later stage. He sought clarification on how best to ensure full uptake of the selective devices: should the gears be voluntary or mandatory?

A fisheries representative noted that the engine power of a vessel is not an issue affecting selectivity.

The BSAC Chair expressed encouragement for continuing the work on selectivity devices. He underlined that a lot of good results had been achieved already in terms of developing new technical solutions, and fishermen are keen to introduce some of these innovations into the fishery. He called on all the members of BALTFISH to conclude the work on the Joint Recommendation as quickly as possible.

Summary and concluding remarks

The Chair noted that everybody around the Baltic understands the urgency to find technical solutions to reduce unwanted catches of cod. The information given at the workshop proves that a lot of research and trials are being carried out in the Member States around the Baltic. The Danish authorities, BALTFISH and the BSAC are aware of the urgent need to move forward and that is why they co-organised the workshop. He underlined that further trials on commercial vessels are needed and it is too early to select the right solution. He informed that the Swedish authorities had volunteered to organise a technical working group meeting as follow up to the workshop under BALTFISH. The European Commission will be informed on the outcome of the workshop.

The Chair thanked the BSAC Secretariat for arranging all the technicalities of the meeting.

Input received after the meeting

Representatives of Swedish fishermen wrote to underline that it is important to quickly test different gear solutions in practice, in the commercial fishery. There is no time to wait for more workshops or scientific experiments (outside the commercial fishery). There is enough material to draft a Joint Recommendation as soon as possible. It seems that the topless-trawl is very promising at this stage.

The representative of the BALTFISH Presidency wrote to confirm that an alternative gear designed by German scientists (ROOFLESS gear) had been tested and is ready for use. In reply to a questions at the meeting as to whether additional Joint Recommendation should be drafted for some of the other alternatives presented during the workshop, she confirmed that this is a possibility. If alternative gear solutions are ready for use (tested and finalized), new Joint Recommendations can be drafted without delay. The BALTFISH Presidency is ready to act.