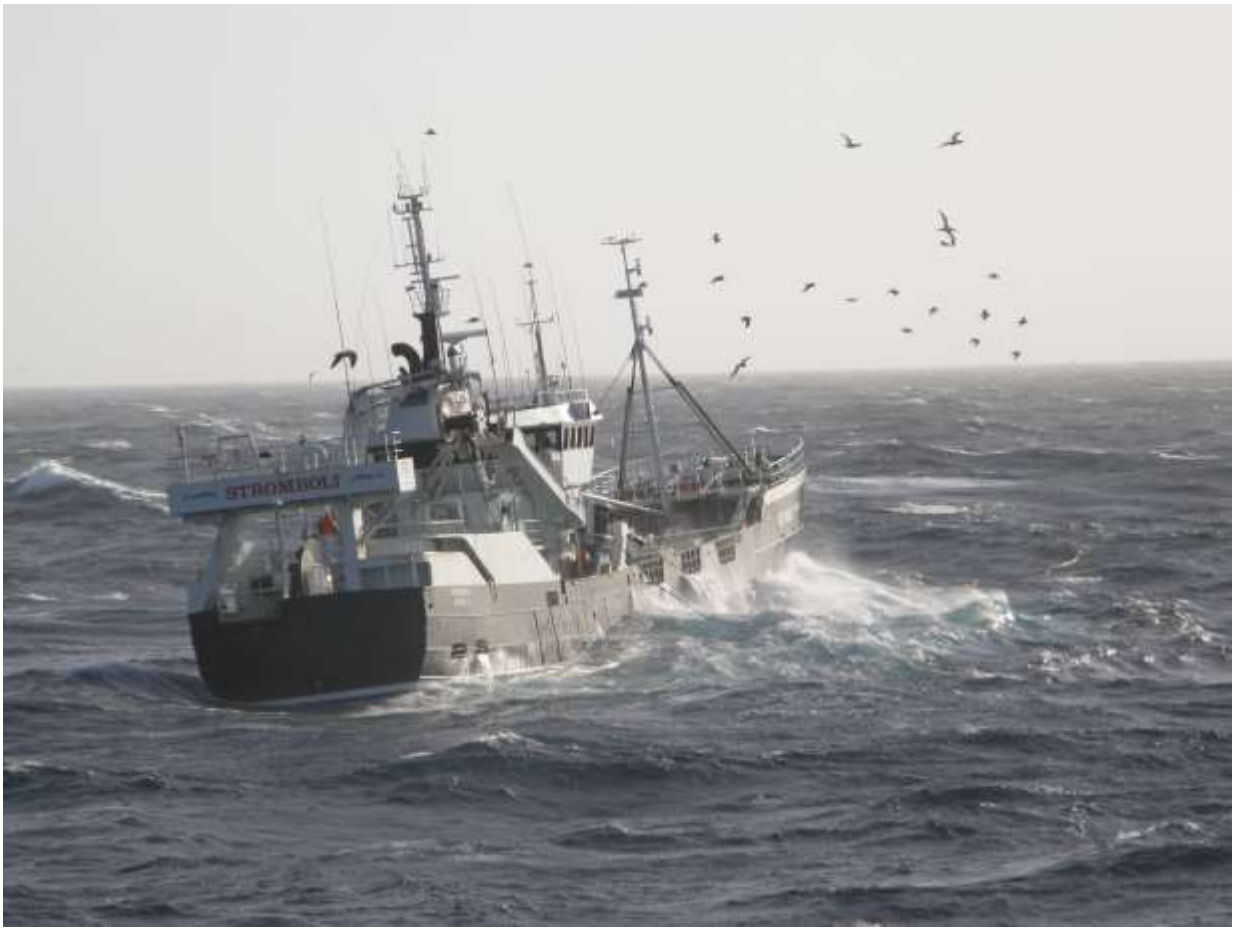

PELAGIC ADVISORY COUNCIL

Newsletter 2/2019

April - June 2019

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PELAC MEETINGS

WORKING GROUP I MEETING (25 APRIL 2019, THE HAGUE)

During this meeting a number of topics were explored in more depth with presentations from various speakers. The meeting focused on three main presentations: the newly published North Sea herring MSE, the FMSY project and herring genetics.

Benoit Berges from WMR presented the NS herring MSE. ICES was requested to evaluate management strategies for different North Sea stocks, including North Sea herring. The request asked for the evaluation of 5 sets of rules which differ mainly on the reduction of Ftarget when the stock is below Btrigger and the application of different stability elements (limits on inter-annual TAC variation and banking and borrowing schemes). For each rule, optimal combinations of Ftarget and Btrigger were calculated as the cases that maximize the yield and minimize the risk of the stock falling below Blim.

The results showed that optimum values of Ftarget were found to be between 0.22 and 0.23 across management strategies and Btrigger = 1.4 MT. For each metric a median was found for the long term yield (about 340.000 - 350.000 tons) and long term SSB is around 1,4-1,5 MT approximately. The results of the MSE will feed into the EU-Norway negotiations in May.

Subsequently, Henrik Sparholt informed the meeting about the ongoing Fmsy project, which aims to develop alternative ways of estimating Fmsy values taking ecosystem interactions into account. In his presentation, Sparholt emphasized the importance of density dependence (notably, cannibalism) in calculating Fmsy. This effect can be significant, and when taken into account can lead to higher Fmsy values than following classical stock assessment approach. This would avoid unnecessary losses of catches. The project is in the process of developing a manuscript with the main findings.

Finally, Dorte Bekkevold presented her project on herring genetics at DTU Aqua. In the project different herring genomes in wild spawning samples in various areas in the West East Atlantic have been sequenced. The statistical certainty to assign fish back to the home stock was high and in general good separation powers are observed between different stocks. She demonstrated some interesting correlations between specific genotypes and characteristics that allow better spawning success at home compared to other areas. It was an interesting exchange and the potential for genome sequencing is looking very promising.

WORKING GROUP II MEETING (25 APRIL 2019, THE HAGUE)

Working Group II meeting focused on mackerel, Western horse mackerel and Celtic Sea herring.

First, an update on the mackerel inter-benchmark results was provided and the changes leading to the new perception of the mackerel stock were explained in more detail. The issues in the 2018 assessment were solved by constraining the impact of the tagging data and changing how recruitment is treated in the model. The result was a substantial upward revision of the SSB and a higher recruitment estimate.

Subsequently, the PFA self-sampling plan was presented followed by an update on the work on Western horse mackerel. The Pelagic AC has tried to develop a management strategy for this stock

for some time, but this is difficult. The assessment is quite uncertain due to lack of data. In the PFA self-sampling program, industry vessels involved share digital logbook data that are used to calculate CPUE. This data can be used to increase the knowledge base for this stock. A collaboration with Landmark Fisheries was started last year to evaluate different HCRs for Western horse mackerel, but this work suffered some delay and Landmark is now unavailable to take on the continuation of the project on the short term. As an alternative, a collaboration between Dankert Skagen, Marine Institute, DTU Aqua and industry scientists was proposed to follow up with this work. The Focus Group hopes to present further progress on the management strategy during the July meeting.

Following up on the Celtic Sea herring rebuilding plan that was presented during the February 2019 meeting, the Marine Institute now presented an alternative proposal for this stock, based on the recent assessment updates after HAWG. The stock was found to be below Blim with very low recruitment, therefore an advice for 0 TAC is expected. To secure the data flow for this stock, the MI now proposed to request a monitoring TAC. A monitoring TAC option had been evaluated and is expected to have a small impact on stock recovery, while maintaining sampling opportunities as well as good spatial/temporal coverage.

Finally, Working Group II discussed diverse issues in relation to the landing obligation. First the draft JR of the Scheveningen Group was discussed and the Working Group was pleased with the wording in this plan regarding de minimis exemptions for mackerel/horse mackerel, which can serve as an example to follow by other groups. A discussion was held subsequently on the calculations for the TAC reduction for Western horse mackerel based on discard estimates, and it was clear that in order to better understand how TAC reductions are applied, a closer investigation into the figures/calculations is necessary. It was concluded to prepare a detailed paper on this to present to the Commission in July.

EXECUTIVE COMMITTEE MEETING (25 APRIL 2019, THE HAGUE)

The Executive Committee agreed to draft several letters to the Commission: a request to ask for the setup of an ICES working group on underwater noise that specifically investigates the impacts of seismic surveys on herring spawning grounds. The second letter was to ask the Commission to confirm the correct interpretation of the catch composition rules of the TM regulation under the landing obligation. It was also agreed to formally ask ICES to include the concept of density dependence on the agenda of the Mackerel Research Roadmap workshop in Bremerhaven, planned in May. This followed from the presentation on the Fmsy project held during Working Group I. Furthermore, the ExCom agreed to circulate the new proposal for a monitoring TAC for the Celtic Sea herring for approval by written procedure. This proposal by the Marine Institute replaced the previous proposal for a rebuilding plan.

BLUE WHITING FOCUS GROUP (26 APRIL 2019, THE HAGUE)

The aim of the blue whiting Focus Group meeting was to discuss the development of a management strategy for blue whiting that addresses the fluctuating recruitment regime exhibited by this stock

and that also mitigates the predicted stock decline by ICES in its 2018 advice (when 2016 and 2017 year classes are fully selected in the fishery from 2020).

A long-term management plan for this stock was agreed late 2017, based on a modified ICES HCR. The latest ICES advice indicates that we are entering a 'low productivity phase'. The difficulties of applying the standard ICES MSY rule to a stock like blue whiting was discussed. Dankert Skagen had done some work some time ago to develop HCRs for this stock that are more adapted to shifting productivity phases. The conclusion of Skagen's work showed at a two-tier management system, that switches between different harvest rates when moving between different productivity phases was the best way forward.

A presentation on the international blue whiting survey by WMR gave some preliminary indications from the 2019 survey, that more or less confirmed the expected predictions. The abundance was lower and no recruitment is observed. A long discussion on the October 2013 ICES advice was held, which was based on two recruitment scenario's. ICES found it to be fully precautionary. The Focus Group felt this advice was worth revisiting, as well as Dankert Skagen's work on alternative HCRs.

It was therefore decided to develop a TOR to outsource follow-up work which could help in developing the management strategy. The work would consist of a hind-casting analysis of 2 different HCRs and update Skagen's work on a two-tier HCR with updated reference points.

CONTROL FOCUS GROUP MEETING (5 JUNE 2019, SCHIPHOL)

The meeting was a follow-up to the Focus Group meeting held on January 25th, and aimed to finalize the draft recommendations for the Commission proposal 2018/0193 amending the control regulation. The January Focus Group missed input from the OIG members, so efforts were made to align the draft recommendations to suit both industry as OIG interests. The focus of the meeting was therefore to go through the draft recommendations on an article by article basis, and resolve the points that lacked consensus.

Sensitive topics included the compulsory use of CCTV camera's for control of the landing obligation, the new weighing at landing provisions, monitoring of fishing capacity, new rules concerning the fishing logbook... The meeting was very productive and compromises were reached for most of the main issues. The PELAC has already submitted detailed comments on most of these topics in a previous recommendation (2018). Where OIG/industry alignment was difficult, it was decided to base PELAC comments in the recommendations on these previous positions.

The PELAC will finalize the recommendations for this proposal to be shared with the Commission, Member States and European Parliament in light of the co-decision process. The aim is to have the draft ready by the next PELAC meeting on July 10th – 11th in Lisbon for discussion and final approval by WG II and ExCom.

PELAC MEETINGS

WESTERN HORSE MACKEREL FOCUS GROUP MEETING (20 JUNE 2019, SCHIPHOL)

The Focus Group on Western horse mackerel came together a nearly a year after the last meeting in June 2018. The Focus Group has tried to develop a management plan for the stock for several years.

After the 2017 benchmark assessment, the stock was estimated to be close to Blim. To support the focus group in evaluating HCRs for a management plan, a collaboration was started mid 2018 with Landmark Fisheries. Landmark did some work that was presented at WGWIDE 2018, and looked at scenario's where some fishing under Blim was allowed. The conclusion was that the concept of an evaluation approach would be successful, but it didn't include the right types of uncertainty for the starting position. A follow-up evaluation was therefore needed.

Due to the fact that Landmark was unavailable to continue this work, the Focus Group has suffered some delay and has now decided to set up a collaboration between industry scientists, scientific institutions and an independent expert which will investigate if the same (medium/long-term) approaches as used for the Celtic Sea herring and Western Baltic spring spawning herring can be applied to Western horse mackerel. The Focus Group meeting on June 20th discussed the way forward for this ad-hoc working group and timelines for deliveries. This work is expected to feed into WGWIDE in August.

During the meeting, it was explained that part of the problem for developing a plan for Western horse mackerel is the conflict between the ICES requirements of needing a low probability of being below Blim and being at or under Blim at the start. It is unclear what the criteria are to evaluate if a rebuilding plan is precautionary. The work of the ad-hoc working group will evaluate techniques for rebuilding plans that could address the rebuilding part of the management strategy. Aside from investigating how these techniques can be applied to Western horse mackerel, this work will also serve as preparation and input to the ICES workshop on rebuilding plans that is planned for February 2020.

All detailed meeting minutes can be downloaded from the PELAC website once they are finalized:
https://www.pelagic-ac.org/2019

EXTERNAL MEETINGS

MACKEREL INTER-BENCHMARK MEETING (4-7 MARCH, IJMUIDEN)

PELAC representatives: Sean O'Donoghue (chair), Ian Gatt.

- The Mackerel inter-benchmark process meeting concluded on March 7th after 3 months of intense work and debate. To recap, the issues being addressed at the benchmark related to concerns that the RFID tagging data were having a very strong influence on the trajectory of the mackerel assessment, and that the model prediction of high mortality of tagged mackerel was very questionable and needed detailed investigation.

- The outcome was agreement on a new version of the stock assessment where the tagging data have less weight because they have been cropped to include only those parts that are believed to have reliable information. The patterns in the data reveal many things that cannot be explained, so the decision was made to limit is application until the data series is longer, and the patterns can be explained with some confidence.

- This new version of the assessment predicts a very different perception of changes in the stock size, fishing mortality and recruitment. Of key interest to you will be that the estimated biomass in 2017 is over 4 million tonnes (green dashed line on graph), while in the ICES advice from last year it was around 2.3 mt. The pattern over time is different too, and is more consistent with industry views, showing the stock to increase, peaking around 2015 before decreasing.

- The change in recruitment is particularly important because recruitment is now predicted to have been considerably lower in some years that were previously predicted to be high and vice versa. 2016 stands out as being particularly contrasting because it was previously considered to be the lowest since 1980, now the model predicts it to be the highest since 1980! The reason for this is that the model is now much more closely matched with the recruitment data on 0-age mackerel recorded in IBTS surveys. It's important because it affects the calculation of the biological and management reference points relating to stock biomass and fishing pressure (e.g. Blim, MSYBtrigger, Fmsy).

- Reflecting a recruitment data series that indicates a period of higher productivity (data from 1998 only is used), the reference points for the stock have changed, with Blim being very slightly higher, MSYBtrigger being lower and Fmsy being slightly higher. This means that the new assessment would indicate the stock to be well in the 'safe zone' (above Blim) and above MSYBtrigger. But the fishing rate remains higher than the advised level (but not as much as it was in previous assessment).

- One of the recommendations from the meeting is for an improvement in quality control processes, something that has come up several times. One direct outcome of this will be a an annual tagging data workshop to scrutinise the data prior to its use in assessment.

The full report of the inter-benchmark can be found in Annex 1.

EXTERNAL MEETINGS

TECHNICAL MEETING SWW GROUP (26 MARCH, LISBON)

PELAC representative: Gonçalo Carvalho.

The SWWAC and PELAC observers were invited to attend the afternoon session of the SWW TG meeting. The meeting was about the exemptions for the demersal discard plans that were given for 2019 only on a provisional basis, with a report by the three mainly concerned Member States - Portugal, France and Spain - on what additional data and for which exemptions can be provided to ensure the maintenance of the exemptions.

Concretely, the PELAC asked what was being done for pelagic by-catches in demersal fisheries:

- Portugal will be able to provide additional data on blue whiting, and also separating better the data for mackerel, horse mackerel, anchovy and boarfish.
- Spain will be providing data for mackerel, horse mackerel and anchovy for justifying disproportionate costs.
- France said that they are not planning to provide new data but they plan stress that the exemptions are needed, especially for demersal trawls.

ICES ADG MSE NORTH SEA HERRING (9-10 APRIL 2019, COPENHAGEN)

PELAC representative: Anne-Marie Kats.

The ICES Advice Drafting Group MSE's provided advice on a special request from EU and Norway concerning long term management strategies for North Sea cod, whiting, saith and North Sea autumn spawning herring. North Sea herring falls under the remit of the Pelagic AC.

ICES provided an answer to the request in form of F_{target} and $B_{trigger}$ combinations which would maximise the yield while ensuring that the probability of the SSB falling below B_{lim} is less than 5%.

Optimal combinations of F_{target} and $B_{trigger}$ were found for the different management strategies defined in the request (A, B, A+C, A+D), which differ mainly on the reduction of fishing mortality when the stock is below $B_{trigger}$, and the application of different stability elements (limits on inter-annual TAC variation and banking and borrowing schemes), plus three additional strategies (A*(=ICES advice rule), A*+D, F=0). No "optimum" could be found for HCR B+E within the projected time-frame (20 years).

Some highlights from the discussion at the ADG:

- Banking and borrowing scenarios are taken into account as stability mechanisms, but because it's difficult to anticipate how it will be applied, an extreme version of it was modelled.

- North Sea herring is fished by 4 different fleets, for human consumption (fleets A and C) or as bycatch (fleets B and D). The C and D fleets fish herring in subdivision area 3a, and catches from A, C and D fleets consist of mixtures of North Sea herring and Western Baltic Spring Spawning (WBSS) herring. The level of mixing in the catches is mimicked in the simulations. Also, the

utilization of the B and D fleet are taken into account and simulated. The C fleet transfers 40-50% of its quota to the North Sea (which is thereby added to the A fleet).

- ICES noted that the advice to close the WBSS herring fisheries in 2019 has not been followed in the TAC setting. Therefore, the evaluation assumed a fixed catch of North Sea herring by the C and D fleet, also into the future. This assumption was thought to be more precautionary for the North Sea stock than the assumption of a closure of the herring fishery in 3a.

Results summary:

Optimum values of F_{target} were found to be between 0.22 and 0.23 and $B_{trigger}$ at 1,400.000 tons across management strategies. Following the ICES advice rule an F_{msy} value of 0.26 was found.

In the MSE, all catch options are lower than the ICES advice rule (Fmsy reference points estimated by ICES 2018). According to ICES, one clear reason is that the realised catch from the stock is regularly higher than the TAC set for the North Sea, owing to several biological processes and managerial decisions in place.

Not all management scenarios are considered precautionary in the long term. The ICES MSY advice rule with current F_{MSY} and MSY $B_{trigger}$ was found not to be precautionary (probability of SSB<B_{lim} higher than 5%) under the assumptions of the present simulations. The lack of precautionarity of MSY reference points reveals fundamental differences between the use of EqSim (used to estimate Fmsy) and the MSE analysis.

North Sea herring reside part of their life in Division 3a where they are caught by the C and D fleets. Furthermore, in the past decade, herring quota was transferred from Division 3a to the North Sea, imposing additional mortality on North Sea herring. Both aspects are fully considered in the MSE, but were not for the calculation of the present reference points. EqSim doesn't account for transfer of the catches from 3a to NS.

More detailed information on the advice can be found in the ICES advice sheet (Annex 2).

RESEARCH ROADMAP FOR MACKEREL WORKSHOP (7-9 MAY 2019, BREMERHAVEN)

PELAC representatives: Sean O'Donoghue, Gerard van Balsfoort, Ian Gatt & Anne-Marie Kats.

ICES organized a workshop to discuss the challenges in the mackerel advice with stakeholders across the Coastal States, and what is needed to improve the quality of the mackerel advice moving forward. The participants consisted of scientists, policy-makers, industry representatives and one NGO. The objective of the workshop was to develop a roadmap for future science in relation to mackerel, that would help improve the quality of the scientific advice.

The main driver for organizing the meeting was the 2018 mackerel advice, and its subsequent revision. Policy makers stressed the need for certainty in the advice in light of decision making. The European Commission underlined the collective responsibility of all those involved for providing a level of certainty, and any evidence contributing to stable advice must be included in the assessment.

During the meeting, criticism was expressed for the ICES decision of issuing advice that was so questionable. The timing in the advice cycle and the flexibility of scientists outside the benchmark process were identified as bottlenecks.

The Pelagic AC was invited to give a presentation on behalf of EU industry and NGO's combined. According to the PELAC, the ICES mackerel advice is not robust enough for future fisheries management, as demonstrated by the numbers of errors, the frequency of the revisions, the unpredictability and volatility of the advice over recent years. ICES seems to have trouble grasping this stock and that this something the PELAC would like to help resolve.

According to the PELAC, one key reason for the issues in the advice relates to quality assurance: ICES urgently needs a fit for purpose QA system. The PELAC stressed QA is an absolute must and needs to cover the entire process: From the time data is collected at sea, to the final issuing of advice. One key example: the fact that the mackerel advice only has one model, should have been identified as a CCP. In addition, if a solid QA system had been in place, the benchmark would not have accepted the RFID tagging data. The Pelagic AC recommends that independent consultants be brought in to install a proper QA system. This will take time and the Pelagic AC does acknowledge that ICES is improving, but there's still a way to go.

The PELAC also made some recommendations as to what is needed for a more robust advice on mackerel: Recruitment information should be a workstream priority; a mechanism should be developed to integrate industry observations as well as commercially derived data into science, the discrepancies between the egg survey and the summer survey should be resolved (notably the fact that the North Sea is covered in one survey and not the other), and acoustic equipment should be standardized. Density dependency is also an important concept to consider. Furthermore, the PELAC stressed the need for a sharing arrangement for the mackerel stock, and the risks posed to overshooting the TAC. A strong recommendation was the development of a 5-party management plan.

The PELAC's concerns over the volatility in the advice and its robustness was widely shared by other participants. There was also a call for increased transparency from ICES over the advice process: whether it's the way ICES communicates uncertainty in the advice sheets, to decisions taken at ACOM level.

In break-out sessions, the following aspects were identified by stakeholders as major improvement areas for ICES moving forward:

- The importance of the mackerel stock as a multi-billion euro industry, should be reflected in allocation of resources. There is a need for bigger capacity of scientists able understand the model/data as well as options for with more than one model should be explored. This should be acknowledged by governments as well.
- There should be more flexibility outside the benchmark, ability to question data and flag the potential revisions (Balancing trade-off strive for consistency and model predictability)
- How uncertainty is communicated in the advice
- QA over the entire advice process

- Inclusiveness and responsiveness to stakeholder info
- Pathway for delivery of industry data
- Coverage of surveys over entire changing distribution of the stock
- Geographic extent SSB indices
- Acoustic surveys and its limitations with mackerel

Final reflections PELAC: All in all, there was a general appreciation for the openness from ICES to organize this workshop and the courage from the scientific community to come forward with the issues in the mackerel advice was respected. The PELAC has been struggling with mackerel since its existence. A lot of effort has gone into discussing science and in improving its own participation. While the stock has been changing, it has now culminated to a point where stakeholders start to really doubt the science. Bigger steps forward to improve are now urgently needed.

Six years ago, a discussion was organized among scientists and industries across Coastal States, to get a first answer to the question how can industry help the science to get perception of the stock. The two main conclusions were: the EU industry embraced the fact they need to invest more themselves (such as in RFID tagging) and trying to find out if the egg survey could be improved. The Pelagic AC was pleased with this next step which now also includes managers, making the dialogue more complete. Many issues have been openly discussed, some new thoughts and ideas were brought to the table.

From this workshop, the three main issues essential for PELAC are:

- Investment in developing and implementing a QA scheme throughout the process is absolute paramount. This is easy to say and very difficult to do, but it will help all of ICES and not just the mackerel advice.
- How to get around the fact that industry sometimes has a really different perception than what ICES comes up with. There must be a mechanism built into the process that if the perception is so considerably different, it should trigger an alarm bell and something should be investigated. At the same time, the industry also needs to do better in coming up with its perception of the stock. This should be more sophisticated than a stakeholder paragraph in the advice at ADG. The PFA self-sampling program could be an example.
- Looking at data and the analysis, it is clear ICES is over-demanded and needs more resources. Funding is getting more difficult and the industry can't ignore the fact that it needs to chip in: there's a role to play for the industry as well. But in the case of mackerel, what's missing is collective industry collaboration on mackerel science between Coastal States, and this should discussed in CS context. There are tensions when it comes to sharing discussions, but there is togetherness when it comes to science and inspection. Working together between the Coastal States to develop additional science is the main recommendation from the Pelagic AC moving forward.

EXTERNAL MEETINGS

HIGH LEVEL MEETING SCHEVENINGEN GROUP (22 MAY, COPENHAGEN)

Participants:
Directors from the MS administrations around the NS. Representatives from the NS AC Kenn (Skau Fischer / Irene Kingma) and PELAC (Esben Sverdrup Jensen).

Issues:
Main topic of the meeting was to discuss the Demersal Discard Plan, including a series of derogations for high survival + Pelagic Discard Plan. ACs were invited to participate only for a very short while of maximum 40 minutes.

PELAC raised issues on how to deal with bycatches of demersals in pelagic fisheries and vice versa. PELAC encouraged the Scheveningen Group to work with other regional groups to consolidate a common understanding of "de minimis" and how it is applied. This following the December Council.

PELAC reflected on the discussions in the AC on "de minimis" and the concerns relating to bycatch figures of pelagics in demersal fisheries and the discrepancies between national, STECF and ICES figures. Reporting has to be uniform.

PELAC encouraged the Scheveningen Group to focus in on issues relating to pelagic fisheries in the coming year, especially the issues of unsorted landing dealt with in the proposed Control Regulation.

There were no comments of substance from the High Level Group.

ICES ADG CELTIC SEA STOCKS (10-14 JUNE 2019, COPENHAGEN)

PELAC representatives: Sean O'Donoghue and Ian Gatt.

This ICES Advice Drafting Group (ADG) provides advice for Western, Celtic Sea and Irish Sea herring, all of which fall under the remit of Pelagic AC. Both the Western and Celtic Sea herring have a zero TAC advice for 2020, with advice Irish Sea herring increasing by 17%. The Celtic Sea advice is subject to approval by ACOM and scheduled for public release at the end of June.

Herring in Divisions 6.a and 7.b-c (West of Scotland, West of Ireland)

Headline advice

The basis of the advice has changed from the MSY approach to the precautionary approach using the ICES framework for category 3 stocks. ICES advises that when the precautionary approach is applied, there should be zero catch in 2020.

Text advising that a stock recovery plan be developed for this stock has not been included in this advice. ICES note that the proposed PELAC rebuilding plan had not been evaluated.

An inter-benchmark was carried out on this stock this year to address issues with the strong retrospective bias in the 2018 assessment. From all of the runs conducted during the IBP there was no clear best run that satisfied the performance criteria of:

- a good statistical fit of the model to observations
- expectations for survey index diagnostics - in particular, the catchability of the acoustic survey index
- significantly reduced retrospective bias
- model diagnostics consistent with understanding of the biology of the stock and its components in the North and South
- understanding of the differences in fisheries in the North and South

The updated assessment model still has a strong retrospective bias. There are continued concerns with the quality of the combined assessment and how well it is able to represent the dynamics of the separate stocks and fisheries in 6aN and 6aS&7b-c. As there are unresolved issues with the assessment it is used as indicative of trends only.

The updated assessment points to a different stock trajectory, with SSB and recruitment revised downwards. The fishing mortality has been revised upwards, however it's been decreasing since the introduction of the monitoring TAC.

There are no defined reference points with the new assessment and no catch options are provided.

There is a huge uncertainty surrounding this assessment which will not be resolved before the full benchmark scheduled for 2021.

ICES continue to state that activities that have a negative impact on the spawning habitat of herring should not occur, unless the effects of these activities have been assessed and shown not to be detrimental to these combined stocks.

PLELAC observers produced a text for inclusion in section "Information from the stakeholders". This related to the genetic research programme aiming to elucidate existing information on stock mixing in divisions 6.aN and 6.aS&7b-c. Industry led surveys will continue in 2019. PELAC also states that a revised re-building plan had not been evaluated by ICES.

Herring Division 7.a North of 52º 30'N (Irish Sea)

Headline advice

ICES advises that when the MSY approach is applied, catches in 2020 should be no more than 8.064 tonnes.

The advice is based on the MSY approach as a management plan has still to be developed for this stock. The spawning-stock biomass has been above the maximum sustainable yield biomass reference point, MSY $B_{trigger}$ since 2006. Fishing mortality has decreased since 2003 and below Fmsy

since 2006. Recruitment is assessed to be above the long term average since 2006. The assessment has a very consistent perception of SSB, F and recruitment.

The main issue for the assessment is the mixing of Celtic and Irish Sea fish at younger ages in both catches and surveys. There is an ongoing commitment to collect data for resolving this using genetic DNA techniques.

Activities that have a negative impact on the spawning habitat of herring should not occur, unless the effects of these activities have been assessed and shown not to be detrimental to the productivity of the stock.

The PELAC observers produced a text for inclusion in the advice which stated that the AC still aspired to have a long term management strategy developed for this stock.

Herring Divisions 7.a South of 52 30N, 7.g-h, and 7.j-k (Irish Sea, Celtic Sea, and southwest of Ireland)

Headline advice

ICES advise that when the ICES MSY approach is applied, there should be zero catch in 2020.

The stock is perceived to be declining since 2011, and to be below Blim in 2017 and 2018. Fishing mortality has increased since 2008 but decreased in 2018. Recruitment has been below the long term average since 2013. There are no catch scenarios for 2020 which sees the stock increase above Blim.

This stock was benchmarked in 2015 and inter-benchmarked in February 2018. There's currently no management plan in place since the previous plan was found not to be precautionary in 2018.

The survey time-series includes data from 2002-2018 (excluding 2004 & 2017), the 2017 survey was not used as only one sample was collected. Since 2014, herring have been observed very close to the bottom producing a less reliable survey estimate, which has added uncertainty to the assessment.

The 2018 assessment revises the SSB downwards and the mean F upwards. This revision is most likely due to the lack of the 2017 survey index and the 2018 survey estimate from the acoustic survey being the lowest in the time series.

Recruitment estimates are uncertain due to a lack of recruitment indices. In the Irish Sea, mixing occurs between the Celtic Sea and Irish Sea fish, but the level of that mixing is unknown.

Activities that have a negative impact on the spawning habitat of herring should not occur, unless the effects of these activities have been assessed and shown not to be detrimental to the productivity of the stock.

PELAC observers produced a text for inclusion in the advice. This related to actively pursuing a rebuilding plan in light of the results of the inter benchmark and the most recent assessment. In order to support future stock assessments, the PELAC is seeking advice on the relevant timeframe for any fishery, the geographical areas where each fleet should operate and a level of catches that would not impair the recovery of the stock, but would be sufficient to allow collection of fisheries dependent data.

SEMINAR DG MARE: LANDING OBLIGATION (14 JUNE 2019, BRUSSELS)

PELAC representatives: Stella Nemecky, Wietze Kampen.

Introduction by Dir. General DG Mare Machado:

- It has been proven that LO is not sufficiently controlled
- CCTV is the best measure to ensure control
- control must not start to be improved only once the revision of control regulation is done
- COM is concerned about low levels of spending of EMFF on LO, 89 Mio € are committed to it
- more efforts are needed to reverse this trend and invest in more selective gear and storage facility or other measures to deal with unwanted catches
- Bottom up approaches need to be stepped up
- But good news is: we are far from the catastrophic situation some predicted when LO started off, but need to improve the situation
-

Elisa Roller: important issues are on the table – hope for franck discussions in the working groups
Organising officer: Evelien Ranshuysen – policy officer D3

WG2

6 industry members - 3 NGOs – 3 ACs

John Hederman: control and enforcement of LO

(COM – DG Mare, D4 fisheries control & inspections)

- MS have an OBLIGATION to adopt appropriate measures, resources and structures to ensure control, inspection
- MS cannot ensure effective control and enforcement of LO at sea by using conventional means
- REM is the way forward: it is widely recognised as the best way to effectively control at sea; incl. sensors on pumps, net, winch
- Automatic recognition software can facilitate reviewing large volumes of data
- Needed: level playing field, for that a legal basis is fundamental:
- Conclusion: Conventional control at sea are ineffective

Miguel Nuevo (EFCA): Remote electronic guidelines, risk-assessment and compliance indicators

- Technical guidelines – 3 parts – available on the EFCA website for download
- Compliance levels are low esp. in the active demersal fisheries
- Traditional control mechanisms are ineffective
- De minimise recordings: practically zero
- Amount of estimated illegal discards are by far higher than the exemptions
- No compliance with LO, no compliance with the obligation to record discards for use of de minimis exemption

Comment Mike Park: yes, costs for REM itself is low, BUT: Real cost of REM: underutilisation of quota

Sören Palle Jensen – Use of REM and CCTV technologies in DK between 2008-2016

(Danish Fisheries Agency, Ministry of Foreign Affairs, Denmark)

- REM can: verify log book recordings, ensure reliable fisheries, provide high quality data for fisheries scientific advisory work, reverse the burden of proof
  BUT: a sanction system needs to be in place while REM is used!
- Cooperation and communication with vessel owners is very important!
- Black box: able to carry a data backup/history for min 6 months, sensor data (speed, course, winch…) was sent via GSM network, video footage sent via 3/4G; used on small (7.1m) to big vessels (40.15m)

Maarten Wegen: Pilot Project Fully documented fisheries, context and aim

(Ministry of Agriculture, Nature and Foodsecurity, NL)

- FDF project with NL fisheries as industry partner (Pim Visser), funded by EMFF, scientific project , no NGOs involved
- REM as tool to ensure data collection and better fisheries management
- Goal 1: lower admin burden and simplification of procedures on board to underpin and enhance innovation, Improve stakeholder commitment
- Goal 2: automated registration of catches and discards in mixed fisheries, to reduce burden of and increase flexibility in quota management

Technology

SatLink – Pedro Vigil: Electronic Monitoring: SeaTube case studies

company is active worldwide – one of the leading providers, more than 200 vessels have been equipped, mainly long liners and purse seiners (e.g. good practice of Spanish tuna PS fleet, e.g. OPAGAC, ANABAC; together with AZTI & DOS)
Goal: Traceability, effective management and transparency

REM ≠ CCTV, but much more:

- Integration with VMS
- High value information (not just video)

- Data integrity (against manipulation)
- Data confidentiality
- Encryption, etc

Footage review: data collected on: e.g. tuna species, length of fish, etc…

Objectives:
- 100% observer coverage
- Handling and release of bycatch (sharks, turtles, protected species)
- Use of non-entagling FADs
- MSC certification

AnchorLab – Brian Cowan: presentation
- **Only data that is actually needed for analysis is transferred**: principle of data avoidance and minimisation (important for compliance with data privacy laws, e.g. in Germany)
- Precise analysis of data
- only camera angles needed for analysis are recorded, other areas are blackened

Marine instruments – Oscar Gonzalez: REM, essentials for consideration
- globally many uses, also combatting IUU
- Conclusion of the technical presentations:
- Should not be talking about CCTV/Cameras – they are fully developed REM systems with an array of applications
- Privacy
- Certification of cable/WiFi with transmission standards?
  answer >> Yes, has gone through CE certification, as any electronic system onboard
- Usability in court: potential proof needs to be of sufficient quality to show a breach of law; difficult with the number of derogations in place
  Answer >> all data recorded is linked/integrated, so any incident is watermarked and cannot be altered – tempering attempts are visible

Mario Santos/EFCA - Summary WG 2:
- General lack of compliance with regulation
- Illegal discards and missing data is common
- Detecting and deterring is impossible with the current measures
- REM: potent tool to stop this
- Technical possibilities are amazing and will have the answers to formerly critical issues
- Open questions: **we need a sanction system in place**
- EFCA: guidelines on REM are available!

Afternoon session:

Video: Perk – EMFF funded, Estonian Project for smart APP based logbook – reporting tool; easier real time data submission

Results working group 1: implementation of LO (presented by moderator Jerome Broche/DG Mare)
even though LO has entered into force in full, it is still work in progress; significant

- Bycatch TACs are needed to ensure continuity of fisheries for MS without quota
- Bycatch reduction plans are needed to rebuild vulnerable stocks
- Selectivity improvements are there, but ongoing process and no easy solutions
- Quota management changes are needed
- NO SILVER BULLETT AVAILABLE
- Integration of different tools needed for a more structured approach/tailor-made responses
- Regional specifities – sea basin and fleet differences need to be taken into account
- **Ownership of fisheries community: convince fishermen of the objective, find a way to translate sustainability efforts into market value/incentives**
- Other solutions needed for fish below MCRS
- Breaking silos: share among stakeholders success stories, MSs best practices, but also the failures!
- Evaluate and pot. adjust the different measures in place on performance

Results working group 2: REM systems for the control of the LO (presented by moderator Mario Santos/EFCA)

- better & more accurate scientific advice will be possible
- Eye-opening: technology is no longer a bottle neck, esp. with regard to privacy law
- Stream-lining catch reporting
- LO is a flag ship of CFP – needs to be complied with
- We will not introduce REM on all vessels of all sizes in all fisheries – will be risk-based
- Legal/sanction system has to be in place
- Common guidelines have been developed and agreed by all MS/EFCA
- TCM envisages introduction of pilot projects
- Example of VMS: started with 100 vessels in PT – don't have to start fully fledged with REM, but step by step

Veronika Veits – Director D (Policy Black Sea/Med) – DG Mare – closing remarks
Lots has been achieved, but understanding is there of what the challenges are – the progress made is a sign of cooperation – it needs continued good will; only proper control and enforcement allows for proper implementation; lack of implementation has implications on credibility of seafood – there is a lack of trust, REM is an opportunity for operators to show compliance; still a long way to come to an agreement with control reg; Please continue the close coop working on solving the problems.

Asking everyone: please intensify efforts implementing the LO!
No real choke situation has been signalled to us this year.
Quota swaps/how to improve: like to encourage the dialogue between MS and operators on how to increase liquidity and transparency of swaps; intro of bycatch TACs was a way to tackle choke situations within the bycatch reduction plans

EXTERNAL MEETINGS

Pilots/research: mix of all the found measures can deliver the individual solutions
We do have the financial means to implement the LO – still not being used!

The LO does not need undoing, we have to role up the sleeves and try to make this work – it is too early to say it does not work in year one of full implementation. Collaboration is key.

PRACTICAL INFORMATION

REIMBURSEMENT OF TRAVEL COSTS

Please remember that the secretariat has to receive your reimbursement claims within 1 month after the meeting by post or email including copies of all receipts. Reimbursement sheets received after the deadline will not be taken into account. If you cannot meet the deadline, please inform us as soon as possible. To find out more about reimbursement rules please consult the PELAC's "Rules of procedure" or contact the secretariat.

https://www.pelagic-ac.org/aboutus

SUMMER BREAK

The secretariat will be closed on 29 July until 12 August 2019. We wish you all nice summer holidays!

UPCOMING MEETINGS

WORKING GROUP I AND II, AND EXECUTIVE COMMITTEE MEETING (10-11 JULY 2019, LISBON)

The next Pelagic AC meeting will take place on 10-11 July 2019 in Lisbon. Like every year in July, the main focus will be on the ICES herring advice. During this meeting the Pelagic AC will also report on the progress from the blue whiting, Western horse mackerel and Control Focus Groups.

For more information please visit our website:

https://www.pelagic-ac.org/pracmeetings/upcomingmeetings

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