



▶ Pelagic AC

6.a herring meeting
27 February 2017
14:00-17:00 hrs
Parkhotel
Molenstraat 53, 2513 BJ Den Haag
The Netherlands

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Participants

1	Sean O'Donoghue, chairman	Killybegs Fishermen's Organisation
2	Alan McCulla	ANIFPO
3	Alex Wiseman	Scottish Pelagic Fishermen's Association
4	Ben Dipper	Marine Scotland
5	Edward Farrell	University College Dublin
6	Gerard van Balsfoort	Pelagic Freezer-Trawler Association
7	Ian Gatt	Scottish Pelagic Fishermen's Association
8	Irene Kingma	Dutch Elasmobranch Society
9	John Ward	Irish Fish PO
10	Martin Pastoors	Pelagic Freezer-Trawler Association
11	Matthew Clarke	Fisheries Attaché Ireland
12	Michael O'Malley	Marine Institute Ireland
13	Patrick Murphy	Irish South & West Fish PO
14	Steven Mackinson	Scottish Pelagic Fishermen's Association
15	Susan Lusseau	Marine Scotland
16	Verena Ohms	Pelagic AC

1. Introduction by the chairman, Sean O'Donoghue

The chairman opened the meeting at 14:00 hrs. Since there were a few new faces a tour de table followed.

2. Adoption of the agenda

The agenda was adopted without comments.

3. Follow-up on action items

The first action item was in relation to including genetic sampling under the Data Collection Framework (DCF). The chairman spoke to Paul Connolly and it seemed that there is a possibility to include this.



However, the timeframe was unclear, because the DCF had only been revised last year. It was decided to keep this action item on the list.

The next action item was to circulate the boarfish paper which had been completed.

In regards to potential irregularities when sampling herring in 6.a South in 2003 Maurice Clarke had got in touch with the person who collected the samples. According to that person the samples had been collected west of Donegal and they were spawning samples. There were supposedly no irregularities.

The fourth action item was to prepare a report about the acoustic surveys to be reviewed by WGIPS. This issue was dealt with later during the meeting.

Similarly, the morphometric analysis was also going to be discussed later that day.

The contract with UCD to continue with the herring project had been sorted out. The NPWG was also going to discuss the genetics work during its own subsequent meeting.

The next action item was to discuss the usefulness of genetic analysis in a wider industry context as it could be relevant for all stocks, not just pelagics. The chairman had requested to deal with this point at the next NWWAC meeting at which Edward Farrell was also going to give a presentation.

A letter had been written to the Commission to remind them about the tender for stage 2 of the genetics project and a response has been received this morning. In the meantime, however, Edward Farrell had been in touch with Robert Griffin from the Commission in regards to the project.

Edward Farrell explained that the Commission considered funding a three-year project to fully address the stock ID issue. He hoped that the project would start at the end of this year.

The chairman said that the letter received from Elisa Roller was in relation to the original 1 year project. He thought it might be good to follow-up on this.

The next action item was to discuss how to share the scientific monitoring TAC in 2017 among relevant vessels. This had not been done yet, but the chairman considered it fairly easy to sort out and intended to come back to the issue under agenda item 9.

The splitting of the SGHERWAY samples was not relevant anymore and it was decided to drop this action item.

The value of the 6.a South, 7bc survey has been reviewed and will be dealt with later.

The last action item was in relation to the Science Foundation Ireland (SFI). Edward Farrell had approached them and reported that the SFI co-funds projects up to 50% when the other co-funding parties have spent a minimum of € 500.000 over the past 4 years. There was no upper limit. However, the research cannot be contract research, but has to develop something new. Taking a long-term view, he thought that the genetics project would fit well. Things like survey time, vessel time etc. all count towards the € 500.000 and it was up to the industry to decide if it was interested. Given that the Commission will likely fund a three-year genetics project, this issue is not so urgent anymore.

Assuming that the Commission will indeed provide funding for three years, the chairman suggested taking this point off the action items list.

Martin Pastoors said that this decision should depend on what the industry planned to do in the future. The EU project will focus on specific species, in this case herring. However, in the long term it will be required to apply the developed methods in a broader way. Those methods have to become cheaper and quicker and if the SFI could provide funding to develop applications that allow a quicker and cheaper analysis, then that should be used.



The chairman did not disagree, but pointed out that this was a herring focus group and people looked at the SFI to provide funding for the project the Commission now said it would provide funding for. Therefore, in regards to this specific case he suggested dropping the issue from the list.

Edward Farrell added that while the EU project will solely deal with herring, the methods can be applied generally to other species in the future.

Gerard van Balsfoort said that that will be for a wider project than just herring and that the entire fishing industry should get involved in that which will be more difficult to organize. For the moment, people should focus on herring only.

4. Proposed recovery-rebuilding plan

The chairman reminded the participants that at the last meeting in Dublin it had been decided that the first agenda item would be the recovery plan. Martin Pastoors and Steven Mackinson have done a lot of work in preparing a draft plan. The main reason for having this focus group was the problem of stock separation. Therefore, he considered this to be a key objective in the rebuilding plan. He asked Martin Pastoors to outline the draft rebuilding plan.

Martin Pastoors said that he had tried to choose relevant elements from other plans, mostly the cod recovery plan, and apply them to herring. The current draft plan's starting point was the combined assessment. He also tried to include the monitoring TAC.

The chairman suggested going through the plan step by step and decide which elements should be in the plan. He thought that the first heading of the plan should be the objective and in his view the key objective was that everybody agreed that there were two different stocks, but that they cannot be separated for the assessment.

Susan Lusseau pointed out that splitting the stocks does not recover them. So, the primary objective should be to obtain the information necessary to rebuild the stocks.

The chairman said that in the current situation the ICES advice is contradictory, because it gave advice for one stock even though it considered that there were two separate stocks. He did not think that it made sense to put forward a rebuilding plan if it was not possible to split the stocks.

Martin Pastoors said that before ICES decided that it cannot split the stocks, there was a zero TAC for one of the stocks and a TAC based on a management plan for the other stock. Now that ICES has combined both stocks in its assessment the overall TAC is also set to zero. While people wanted to be able to separate both stocks again, the objective of the rebuilding plan was to rebuild both stocks.

Susan Lusseau added that the objective was to rebuild the stocks and that the method to do this was by splitting the stocks.

The chairman agreed to formulate the objective accordingly.

Steven Mackinson said that it was important to assess where the risk lies and that could be in both stocks. The rebuilding plan should encompass both stocks, but the details could be different per stock. However, this was too early to decide.

Susan Lusseau said that even if the stocks can be split, people cannot have a plan for one of the stocks, but not the other, because they are caught together. Therefore, it was necessary to always take into account both stocks. It would make sense to have one rebuilding plan that considers both stocks. In that case the first objective in the plan would be to have separate assessments, similar to the situation for North Sea and Western Baltic spring spawning herring.



The chairman said that the correct wording of the objective is important. He asked Steven Mackinson and Susan Lusseau to have a look at this. Both agreed. Furthermore, he said that the other considerations are not relevant in terms of the plan itself since they are merely stating facts. They could be included as background information, however. The heading of the next section should be criteria rather than regulation which the chairman considered wrong wording. He also thought that there were too many definitions in the draft plan.

Ben Dipper thought that it was important to have definitions. However, he considered that the focus group might not be the right group to formulate the definitions.

Martin Pastoors suggested skipping this discussion for now and instead focus on the other elements of the proposed plan.

The chairman said that the next issue to consider were reference points. He had expected that the plan would provide information on the research being carried out, e.g. in relation to genetics. Instead it went straight into the reference points.

Martin Pastoors explained that he had approached the plan from the view of what was required for monitoring. This could be different from what the chairman had in mind.

Susan Lusseau said that the ICES advice specifically stated the importance of paying attention to both components and she argued for following that logic.

Steven Mackinson understood that the chairman was concerned about the word combined and suggested taking out that word.

The chairman responded that in regards to reference points the plan still referred to the combined stock.

Martin Pastoors explained that that was all there is available and it was not possible to use something else. He proposed using the word combined only in a very specific context.

The chairman concluded to take out the word combined throughout the plan except in the part that related to reference points. He said that it was necessary to qualify that this was the best that can be done by ICES.

Martin Pastoors pointed out that most plans have these kind of elements, because they enabled ICES to provide advice accordingly. To him it was better to be very explicit about the situation.

The chairman did not disagree, but said that wording was important. These reference points were the best ICES could do at the moment, but they were not good.

Edward Farrell suggested adding a qualifier that would clarify that the current reference points were the best ICES can do for the combined stocks, but that people had no idea what the reference points are for the separate stocks.

Susan Lusseau considered this a reasonable suggestion and emphasized that Martin Pastoors was correct in pointing out that the plan will not be approved by ICES or STECF without reference points.

The chairman wanted to know whether the F value in the plan was taken from the ICES advice.

Martin Pastoors explained that it was the value associated with the scientific TAC set in 2016. The F_{msy} is 0.16 as stated in the ICES advice.

There was also a reference to a very low fishing mortality of 0.025.

Steven Mackinson said that it was unclear what the value will be this year.

The chairman suggested leaving the value blank and having it confirmed by HAWG.



Martin Pastoors did not think that HAWG will deal with this issue since there has been no request in that regard. When the chairman asked how a low F should be defined, Martin Pastoors responded that there had been a long discussion last year to figure out age compositions. He was not a big believer of figuring out number of samples. Instead, he thought it was important to figure out age composition. Therefore, he preferred to use the term “very low F” without giving a specific value. This would make the discussion slightly easier.

Susan Lusseau noticed that one of the discussions revolved around the lowest observed F as a pragmatic way forward.

The chairman wanted to know if that was a good way forward.

Steven Mackinson said that this was difficult to say. He warned that this might not provide the catch needed to adequately monitor the stocks. He suggested phrasing it in terms of minimum requirements, i.e. at least so many samples were needed.

Susan Lusseau pointed out that no matter how low the F was set; the stock will continue to decline.

Steven Mackinson thought it would be better to set a value in relation to F_{msy} rather than use a specific number, e.g. 75% of F_{msy} over the long term.

Gerard van Balsfoort said that the point of departure was the monitoring TAC and that no specific number should be provided.

Martin Pastoors considered that samples can be very low and not much catch was needed for taking samples. Therefore, talking about samples would be very unattractive for a monitoring TAC.

The chairman suggested that if the stock was below B_{lim} , then ICES should determine how big the monitoring TAC should be.

Susan Lusseau said that this would very easily become a scientific matter in which case scientists can easily go to the fishing grounds themselves to take the samples. There was no monitoring TAC needed for that.

Steven Mackinson thought that the appropriate mechanism was what was written down at the moment. The question was who established the value for a low F. Once that has been decided a decision rule can be put in place. People had to wait until after HAWG to set a monitoring TAC which was also a problem.

The chairman suggested changing the text to: “If the stock is below B_{lim} , the catch shall be defined to allow commercial vessels to carry out scientific research.”

Steven Mackinson agreed that that made sense, but thought that something more precise was needed.

The chairman wanted to leave it to ICES to derive an exact figure.

However, Martin Pastoors pointed out that this was not in the interest of ICES. This was an opportunity for industry to provide resources to help scientific research and for that it was necessary to have a more specifically defined number, so it will not have to be negotiated each year.

Susan Lusseau proposed parking the issue for now and discuss offline with Martin Pastoors what would be a good number before the next meeting. The chairman agreed.

The next section was in relation to the TAC setting procedure which the chairman considered rather straightforward.

Martin Pastoors agreed, but pointed out that timing was very important. HAWG meets in March. The advice comes out in May. So, if people wanted to wait until the advice comes out before setting in motion the EU system, it will take at least until July before a quota has been agreed.



The chairman wanted to know why the situation should be different from the one in 2017.

Martin Pastoors said that the quota for 2017 has not been agreed scientifically, but was just copy/pasted.

Steven Mackinson said that it would be more pragmatic to make a decision based on a multiannual rule, because of all the planning required.

Susan Lusseau said that there could be a stepwise approach. If agreeing on something this year turns out to be too high, then the quota for next year could be reduced.

Martin Pastoors wanted to have a mechanism to adjust the TAC based on the outcome of HAWG.

The next paragraph was about a monitoring plan. It was agreed to take out the part related to funding.

Section 9 was referring to data storage and the chairman wondered if this should be included in a rebuilding plan.

Susan Lusseau thought that it was very important to have it included, but she said it could be moved to section 10.

The chairman agreed. He asked Steven Mackinson and Martin Pastoors to provide a clean draft based on today's discussions. He wanted to present the new draft at the PELAC April weekend. If necessary, it was also possible to have a WebEx prior to the meeting.

Martin Pastoors wanted to know how the work should link to other groups like HAWG and whether the plan should be presented in that group.

The chairman replied that there will not be an agreed document by the time HAWG meets, because Working Group (WG) II has to approve the plan first and he intended to deal with it at the April meeting, so that the Executive Committee can discuss the plan at the July meeting.

Ian Gatt wanted to know whether the plan could be adopted through written procedure.

While this was possible, the chairman pointed out that the plan has to be discussed in WG II first before it can be sent out to the Executive Committee for written procedure. There will be a draft available before the HAWG meeting, but it was important to emphasize that this draft has not yet been agreed.

There was one issue Susan Lusseau was missing. While there was a lot of discussion about fishing mortality and harvest control rules (HCRs), everybody agreed that it is probably not fishing mortality that drives the decline in the stock. She suggested considering other issues, like no fishing on spawning grounds, because an HCR will not fix the problem.

The chairman agreed and said that it will be necessary to think about that. He asked Susan Lusseau to draft an appropriate text to be circulated by the beginning of April, so that WG II can deal with the issue at the April meeting.

5. Update genetics project (Edward Farrell)

Edward Farrell provided an update on stage 1 of the genetics project which was about developing a new genetic baseline. Sampling, DNA extraction, genetic marker development and sample screening with markers have all been completed. The first sequencing run has also been completed and preliminary results from the sequencing analysis were available. A preliminary set of high-graded markers was available as well as the first version of the genotyping application. Further sequencing is underway. The baselines spawning samples that have been screened are from discrete spawning grounds in the North Sea, Celtic Sea, Irish Sea, 6.a North and 6.a South. A Baltic Sea outgroup has also been included for comparison. Spawning is temporally separated with summer/autumn spawning in



the North and spring spawning in the South. A set of 100 microsatellite markers, including both DNA- and RNA-derived markers, has been analyzed. 26 markers appeared informative and 5 of them showed distinct geographic patterns that will enable discrimination between different herring stocks. Especially marker HER514 seems interesting given that it exhibits a latitudinal gradient and there might be other promising markers near it on the genome. A very preliminary analysis of 70 SNPs of which 56 scored successfully indicate that samples from area 6.a North and the North Sea group together and possibly represent one stock. In 2017 the analysis of the baseline samples will continue and the panel of markers will be revised for better resolution. Spawning samples from 2016/2017 from the Celtic Sea, 6.a North and 6.a South will also be analyzed. All samples will be screened with new markers too and form the basis for splitting survey samples. Furthermore, Edward Farrell hoped that a three-year EU research project will be funded to continue with this work. He said that it will be possible to budget new equipment into the EU funding, however, that will not become available before the end of this year. Two PCR machines broke down which is an issue, because they have to be replaced.

The chairman concluded that progress was being made. He hoped that it was possible to sort out the equipment issue.

Steven Mackinson wanted to know at which point it can be concluded that the results are robust, because it was necessary to make decisions about management.

Edward Farrell replied that the results can be considered robust once this year's samples have been screened and provide the same signals. However, the baseline has to be updated constantly to account for small variations. In general it was difficult to answer the question, but he tried to make things as robust as possible for 6.a North vs 6.a South.

Susan Lusseau considered it necessary to expand the project in the North as well as in the South to incorporate some more diversity. She suggested talking to fishermen to find out if they are still fishing on the spring spawning stocks.

Alex Wisemand said that he only remembers fishing autumn spawners. The only spring spawners he is familiar with were around Lewis. Everything else are autumn spawners.

Susan Lusseau asked whether there were any areas that people are currently not focusing on, but that should be focused on.

Alex Wiseman replied that people could make look around the Isle of Skye. However, fishing mostly took place around Cape Wrath and west of Lewis these days. For the past 20 years most fishing concentrated on the Cape Wrath area.

Susan Lusseau was worried about the non-difference between 6.a North and North Sea herring. She considered it a possibility that people were fishing North Sea herring in 6.a North, because all stocks might have disappeared in that area.

Alex Wiseman pointed out that there has been a sharp fishing decline in the 1970ies. Before the CFP a lot of Russians were fishing spring spawners in the area.

The chairman concluded that it was necessary to move on.

6. Update on industry acoustic surveys both North and South (Martin Pastoors, Steven Mackinson, Micheal O'Malley)

Steven Mackinson said that he was in the process of completing the survey reports. The objectives of the surveys were to:



- Collect acoustic data and information on the size and age of herring and use it to generate age-disaggregated acoustic estimate of the biomass of pre-spawning/spawning components of herring in 6.a North and 6.a South, 7.b,c.
- Collect morphometric and genetic data to distinguish whether the 6.a North stocks are different from the stocks in 6.a South, 7.b,c.
- Collect catch-at-age data from the monitoring fishery to provide continuous fishery-dependent time series required for assessment.

Afterwards he briefly outlined how the information will feed into the ICES system followed by a recap of the methods used. Each transect was done twice and the one with the highest biomass was chosen. Areas of high intensity were examined in more detail. The abundance estimates in 6.a North were 13,000 tonnes in area 2, 8,000 tonnes in area 3 and 7,000 tonnes in area 4, resulting in a total of 28,000 tonnes. At the end of the presentation a number of recommendations for data users in 6.a North were provided.

Ian Gatt said that the TAC for this year was 4,200 tonnes whereas the lowest biomass estimate is 28,000 tonnes. This should prove to managers that fishermen are not overfishing the stock.

The chairman was surprised that only 8% of the fish in area 4 was spawning. He would have expected more and thought that people might have missed the spawning events.

Steven Mackinson replied that it was also possible that there simply was not much spawning fish in area 4.

Alex Wiseman pointed out that the 28,000 tonnes provide a snapshot only for the survey period. Most fishermen involved in the surveys took their payment after the survey when they fished new fish was coming in. Therefore, he suggested extending the survey later rather than starting earlier.

Steven Mackinson said that it will be necessary to reflect on both timing and area, but ultimately it would be foolish to think that the estimate is a maximum estimate of the stock size. HAWG would never use that value to calculate what the monitoring TAC should be.

Michael O'Malley presented the survey results from area 6.a South and 7.b,c. He said that most of the fish was inshore, and only very little was offshore. Nevertheless, people were able to use some samples from the fishery and augment the data to compute a biomass estimate. The total biomass estimate for those areas was 35,475 tonnes. For 2017 people hoped to expand the area and go a bit further north. In that case it might be necessary to increase transect space.

The chairman thanked the presenters. Last time the meeting had been discussing whether or not the acoustic surveys were useful and he was pleased to see that the answer is now positive. He said that the different industry groups will have to get together and discuss the organization of the next surveys. However, rather than doing that today he suggested arranging a planning meeting via WebEx.

7. Malin Shelf herring acoustic survey (Susan Lusseau)

Susan Lusseau explained that large aggregations around Shetland had been observed, but that the fish had been completely absent off the Irish coast. The outcome of the survey this year was 88,000 tonnes compared to 340,000 tonnes last year. There was nothing wrong with the survey; people just did not see any fish. The fish was also lighter than in the previous year. All fish observed was mature fish and people did not know where the immature fish were. She was interested in finding out whether the fluctuations could be explained by the fact that some fish is caught east of the 4 degree line and at other times west of the 4 degree line. Given Edward Farrell's results this possibility should not be ignored. She also said that North Sea herring is in a very good shape and she suspected that there is a



lot more interaction between the two sides than is currently being taken into account. Quite a lot of the North Sea TAC is taken between 3 and 4 degrees.

8. Funding morphometric analysis

The chairman recalled that that issue had come up at the December focus group meeting. In the meantime there has been some discussion between Marine Scotland and the Irish Marine Institute and he hoped that the funding issue could be solved.

Michael O'Malley was fairly confident that it was possible to hire an analyst for 12 months using EMFF and BIM funding.

The chairman decided to leave it to Susan Lusseau and Michael O'Malley to liaise in this regard. Both agreed.

Susan Lusseau wanted to know whether the morphometrics should be part of the EU project.

Edward Farrell said that in the 3-year EU project more samples will be collected, but he wanted to make sure that people can deliver what they promise and don't stretch themselves too much.

9. Letter from Ken Whelan to DG RESEARCH regarding funding for genetics work

The chairman informed the group that at the last PELAC meeting it had been decided to tap into DG RESEARCH and Ken Whelan has approached DG RESEARCH in relation to funding wider genetics work. His letter addressed eDNA and covered salmon and pelagic species, but the chairman thought it should be broadened further. However, this letter was only an initial step and people were still waiting for a response to maybe having a preliminary meeting.

10. Organization of the industry acoustic surveys 2017 and the sampling

The chairman summarized that this will be organized in a separate WebEx meeting prior to the PELAC April meeting.

11. Input to the ICES HAWG

The chairman pointed out that it had already been agreed that Martin Pastoors will discuss what the focus group intends to do under the rebuilding plan, but pointing out that the plan has not yet been agreed. He also wanted to know if the genetics will feed into HAWG.

Martin Pastoors replied that the genetics will not feed into HAWG, but that there will be an expert group meeting in November that he will chair together with Richard Nash which will look at otoliths. He will try to sneak in genetics at that meeting too.

Susan Lusseau said that the industry surveys will feed into HAWG, but that all other information, i.e. genetics and morphometrics, will be considered at the next benchmark. She also said that the work done by this focus group should be included in the section on industry-related information.

The chairman explained that there has been a long-standing discussion with ICES in regards to industry-related information. He apologized that there was no time to have Susan Lusseau's presentation on biological samples and he asked her to circulate the presentation.



12. AOB

The chairman was anxious to keep this group together and wanted to agree on the next meeting date. He suggested meeting again on the 24th of April at BIM.

Martin Pastoors pointed out that a meeting with the skippers also had to be arranged for the planning and he did not consider Dublin the most convenient place.

The chairman said that a separate meeting can be planned with the skippers. It was decided to go ahead with the meeting in Dublin and to start at 14:00 hrs. That meeting will focus on an update from Edward Farrell, future planning and signing off the rebuilding plan which will be presented the following day to the PELAC.

13. End of meeting.

The chairman closed the meeting at 17:00 hrs.



Action items

- Find out how genetic sampling could be included under the Data Collection Framework (Focus Group)
- Follow-up with Elisa Roller on Commission funding for the herring genetics project (chairman, secretariat)
- Revise rebuilding plan according to the discussions in the focus group (Steven Mackinson, Susan Lusseau, Martin Pastoors)
- Present revised rebuilding plan at HAWG meeting, emphasizing that it has not yet been agreed by the PELAC (Martin Pastoors)
- Discuss revised rebuilding plan at PELAC April meeting (Working Group II)
- Draft text on causes other than fishing mortality that drive stock decline before April (Susan Lusseau)
- Reflect on both timing, area and planning of the acoustic surveys (Steven Mackinson, Martin Pastoors, Ian Gatt, Alex Wiseman, Gerard van Balsfoort, Michael O'Malley, skippers, chairman)
- Liaise in regards to morphometric analysis (Susan Lusseau, Michael O'Malley)
- Circulate presentation on biological samples (Susan Lusseau)
- Organize next focus group meeting on 24 April 2017 in Dublin at BIM, starting at 14:00 hrs (chairman, secretariat)

