



## ▶ Pelagic AC

6a & 7bc herring focus group  
24 April 2017  
13:00-17:00 hrs  
BIM Dun Laoghaire  
Crofton Road  
Dun Laoghaire  
Co Dublin  
Ireland

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### Participants

- |    |                           |  |
|----|---------------------------|--|
| 1  | Sean O'Donoghue, chairman | Killybegs Fishermen's Organisation       |
| 2  | Ben Dipper                | Marine Scotland                          |
| 3  | Edward Farrell            | University College Dublin                |
| 4  | Gerard van Balsfoort      | Pelagic Freezer Trawler Association      |
| 5  | Ian Gatt                  | Scottish Pelagic Fishermen's Association |
| 6  | Irene Kingma              | Dutch Elasmobranch Society               |
| 7  | Martin Pastoors           | Pelagic Freezer Trawler Association      |
| 8  | Michael Cavanagh          | Killybegs Fishermen's Organisation       |
| 9  | Michael O'Malley          | Marine Institute                         |
| 10 | Steven Mackinson          | Scottish Pelagic Fishermen's Association |
| 11 | Susan Lusseau             | Marine Scotland                          |
| 12 | Verena Ohms               | Pelagic AC                               |

### 1. Opening of the meeting by the chairman, Sean O'Donoghue

The chairman opened the meeting at 14:15. He explained that Maurice Clarke's car broke down which prevented him from attending the meeting in person, but that he would come in by phone later. A tour de table followed.

### 2. Adoption of the agenda

The chairman suggested to rearrange the agenda and deal with the rebuilding plan at the end given that Maurice Clarke had some comments on it. Everybody agreed.

### 3. Follow-up on action items

The first action item was to find out how genetic sampling could be included under the Data Collection Framework. It was decided to keep this issue on the list and to seek advice from the Commission how this could be included.



The next one was to follow up with Elisa Roller regarding Commission funding for the genetics project. This had been done and the tender was expected to be published soon.

The third one was to revise the rebuilding plan in accordance with discussions at the last meeting which had also been completed. The plan was going to be presented to Working Group II tomorrow. Unfortunately, people did not have the opportunity to look at it before the next day's meeting.

The next action item was to draft text on causes other than fishing mortality that drive stock decline which Susan Lusseau had done.

Regarding the planning for the acoustic survey, people still had to get together and decide on the timing and area. The transfer of quota issue also had to be sorted out. The chairman assumed that the Northern survey will start in August or September.

The funding of the morphometric analysis had basically been sorted out, but still had to be followed-up on.

There was no news regarding biological samples, but the report was coming out soon.

#### **4. Update genetics project (Edward Farrell)**

Edward Farrell gave a brief update on the progress of the genetics project. Over the past months a lot of different markers have been screened and Edward Farrell came up with a panel of markers that he thought will be able to split the stocks between North and South. Five of those markers show very distinct geographic patterns. Another 26 markers are still informative and should be included in the analysis as well. Neutral markers will also be included to detect if anything unusual is going on. A recent paper in PNAS identified markers which are different between autumn and spring spawning herring in the Western Atlantic, indicating that these patterns are very robust given that they are also found on the other side of the Atlantic. The marker panel now included 40 micro-satellites from stage 1 and 50 SNPs from stage 2 as well as 20 new micro-satellite markers which are located near informative markers. All samples from the previous year have been re-run with the new panel of markers, so that all data can be compared. There is a good spread across areas and years and the baseline data are much more comprehensive now. Thanks to the new high throughput equipment analyzing samples goes much quicker too. In summary, sampling, DNA extraction and marker development have been completed. Screening the samples with the markers will be done in May and June. The sequencing and sequence analysis will be completed by September and a panel of high-graded markers was expected to be available by October in time before the EU herring project starts in November.

The chairman thanked Edward Farrell for the presentation and pointed out that the automation has not been finished. He wondered if Edward Farrell was still looking for someone to finish that.

Edward Farrell responded that he was indeed looking for someone to finish the work and he considered the possibility of including that in the EU project, so that he could hire someone.

The chairman also wanted to know whether anything has been done on morphometrics yet.

Edward Farrell replied that he intended to include the morphometrics analysis in the EU project which will hopefully start in November. The aim of that analysis was to retrospectively split survey samples.

Susan Lusseau said that in 2014 not that many samples had been collected in the North. However, Edward Farrell suspected that that would be no problem since there were enough samples from 2015.

Susan Lusseau wanted to know whether the samples West of Hebrides and way out in area 4 were to be included in the baseline which she considered dubious.



Edward Farrell explained that he only included them to see what was going on. He was not sure what these fish were and therefore was not going to use them for the baseline. He said that he had to further look into the Malin Shelf survey to see what was happening there.

The chairman wanted to know whether the samples from the Isle of Man were spawning samples which was confirmed by Edward Farrell. He said that the samples from the Celtic Sea were as close to spawning as they could get. For the last couple of years spawning has been delayed by about a month.

Martin Pastoors said that he was going to co-chair an ICES meeting in November on splitting herring stocks together with Richard Nash. He asked whether there will be enough results to present from this project.

Edward Farrell said that he would have something to present. However, he might not be able to make it to the PELAC October meeting, in which case he will ask Jens Carlsson to attend and provide an update.

The chairman concluded that the project was progressing as planned and did not consider it necessary to have an update at the July meeting.

At some stage Steven Mackinson wanted to discuss longer term funding of 6a surveys within the group.

Gerard van Balsfoort remembered that last year there had been five vessels. One German and one Scottish vessel did morphology while the other three were involved in acoustics. He wanted to know whether the same setup was needed again this year.

Steven Mackinson replied that probably something similar was needed. The question was whether the resources will be enough for all the people required to carry out the work. Marine Scotland committed to contribute where the sampling fulfilled requirements under the Data Collection Framework.

Susan Lusseau said that that would still not cover people going onboard instead of getting the samples at the markets. In her view 100% observer coverage was necessary to do the work properly.

The chairman wanted to know what the issue was about maturity staging.

Susan Lusseau explained that someone at the lab came up with different values when checking samples. It was difficult to the untrained eye to be certain what stage the fish really were in.

Michael Cavanagh suggested that every vessel provides a sample of each haul and labels it appropriately. He said that the Irish fleet has done that previously and it should be no problem.

Steven Mackinson pointed out that another issue that people had discussed was to take small samples. One of the Scottish vessels used a net from Marine Scotland to take small samples. Another vessel had modified its net appropriately.

Susan Lusseau confirmed that with the net from Marine Scotland people had taken very small samples. She was unsure how small a sample could be taken with a commercial net.

Michael Cavanagh said that that depended on how close the fish is to the bottom and how big the school is.

Ian Gatt explained that Zephyr had adapted its gear which worked very well.

Susan Lusseau was in favor of doing that again since she did not want to end up in a situation where fish would have to be discarded. The requirement for fishing with a small net opening suitable for taking small sample catches would go in the survey protocol.

The chairman wanted to finalize this discussion and asked whether there was enough acoustic expertise. Steven Mackinson confirmed that that was an important possible bottleneck and the possibility of expertise from Cefas was being explored.



Steve Mackinson said that it would be good to know whether costs incurred in regards to putting staff onboard would have to be reimbursed. Last year there was a contingency reserve that had never been used and it would have been great if that money could have been used for some other samples. He suggested thinking about that and putting some money aside.

The chairman said that the vessels know they will get something extra. He wanted to know how quota could be transferred if part of it was being set aside. He said that all skippers got X amount of tonnes, but they had to cover their expenses too and he wanted to know where the costs will be.

Steven Mackinson said that it should be possible to identify that. Last year there was an additional observer onboard and the SPPA paid for him. If, for example, CEFAS does the calibration, there will have to be a contingency reserve to pay for this.

Ben Dipper agreed and wanted to have a discussion on how to pay for all the different parts of the work. A plan was needed upfront and people had to find out whether some of the fish could be banked to turn quota into money.

The chairman wanted to know how Marine Scotland, if it had quota, would transfer the quota into money.

Susan Lusseau responded that it would have to be caught and sold which would then pay for the scientific work.

Ian Gatt said that the amount of quota is very small. He did not consider it realistic to cover all the expenses with the quota.

Ben Dipper felt that the group was constantly in a reactive mode and just now getting an idea of the costs and how to cover them. He wanted to know what could be a pathway.

Ian Gatt pointed out that there is not nearly enough quota to cover all costs. Nevertheless, things went well last year and he thought that people were too pessimistic.

Ben Dipper replied that he was not pessimistic, but aware of a lot of pressures and he wanted to cover them.

The chairman wanted to know how to solve the funding issue.

Ian Gatt suggested that every party identifies what the costs are while planning the work.

Gerard van Balsfoort agreed. He also supported having a contingency plan, e.g. for vessel calibration.

Martin Pastoors suggested making a cost overview of last year as this would provide an idea for this year.

The chairman concluded that Susan Lusseau will make sure that the trawl survey will set aside some samples while Steven Mackinson will provide a cost overview with the help of others.

Steven Mackinson also mentioned that he had drafted a letter to ICES to comply with its guidelines regarding data collection. It was agreed to deal with this issue offline and to send the letter on behalf of the Pelagic AC.

Gerard van Balsfoort said that there had been some carry-over from 2015 to 2016 which was no longer available this year.

Ben Dipper thought that there was still some quota left, but Gerard van Balsfoort pointed out that quota cannot be carried over twice. Ben Dipper promised to follow-up on the issue.

Gerard van Balsfoort also said that there is some bycatch in the summer. Therefore, the total amount for the project was possibly a bit less than 5.800 tonnes.



Ben Dipper said that a 12 nautical mile derogation as well as a discard derogation were needed again this year, but he needed the help of his colleagues to set this up.

The chairman said that like last year the transfers from south to north and from The Netherlands to Ireland had to be sorted out again.

## **5. Update on Commission's genetic tender**

Edward Farrell said that he had received a phone call from the Commission a week ago to clarify some issues. The Commission was close to tendering and he expected the tender to be published within the next couple of weeks. The response time will be at least 4 weeks, but could also be 2 months. Nevertheless, things seemed on track for a start in November. The total size will be around € 600.000 and it was important to emphasize that the project will be supported by the industry and the Pelagic AC. He said that UCD will likely not put in the cheapest tender, but if it had the best supporters, then there will be no reason for the Commission to select someone else.

## **6. Update on morphometric analysis**

The chairman thought that nothing had happened in regards to the morphometric analysis which was confirmed.

Martin Pastoors wanted to know what the timing was for the morphometric work.

Michael O'Malley replied that he was actively pursuing finding the right person to do the work. He said that it would help if stakeholders put some pressure on the Marine Institute saying that this was a priority.

Gerard van Balsfoort understood that this was for samples from last year, but someone also had to analyze this year's samples.

Martin Pastoors wanted to know how long it would take to recruit someone.

Michael O'Malley replied that the main issue was funding. However, the chairman understood from Maurice Clarke that funding would be available. He wanted to know what the situation was in regards to funding the morphometric analysis.

Maurice Clarke replied that this was a matter of finding the right person. He said that people had to send a letter to the Irish administration regarding funding and provide a copy to the Marine Institute.

The chairman concluded that funding itself was not the issue, but rather making the project a priority. He promised to draft a letter on behalf of the Pelagic AC. He wanted to know how quickly someone could be hired to do the work.

Maurice Clarke was not sure, but expected that July or August were feasible. Once the letter has been sent things can move quickly and there were already some people lined up for the job.

The chairman hoped that that person could cover samples from both years even though this was going to be a 1 year project.

Maurice Clarke thought that it might even be possible to turn the project into a 2 year project. He promised to provide a paragraph for the letter highlighting the importance of this work.



## **7. Results of HAWG**

Martin Pastoors explained that there is a new assessment and that the results are very similar to last year. However, the estimated biomass is lower and the assessment is very uncertain. The advice will also be similar to last year, but a text about the monitoring TAC has been included in the comments.

The chairman presumed that the advice will still say the same thing in regards to splitting the stocks. So, he concluded that the advice will likely be a roll-over.

Martin Pastoors pointed out that the monitoring TAC will be mentioned under “issues relevant for advice”.

Susan Lusseau said that acoustic surveys are also mentioned as ongoing work.

Martin Pastoors added that the catch data show no older fish, but there is a lot of older fish in the North Sea. Herring is often being described as a short-lived species, but it can get relatively old. Another factor being observed in the North Sea is that average weight is declining. This could mean that there is not enough food for the fish, but this issue has to be looked into further. One difficulty is that age cannot be determined by just looking at the fish. He said that there is generally very little old fish in 6a and 7b,c, while in the North Sea there is relatively more older fish and fishing mortality on those individuals was increasing too.

## **8. Timing, area and planning of the acoustic surveys (Steven Mackinson, Martin Pastoors, Micheal O’Malley)**

### **6a North**

Steven Mackinson provided a brief update on the industry-science acoustic surveys. The survey results had been presented at the HAWG meeting and the acoustic data were considered reliable estimates of minimum spawning stock biomass and the beginning of a possible time series, but the data have not yet been included in the assessment. Catch data from the monitoring fishery, however, were used in the combined assessment. Furthermore, specific points to consider in a future benchmark were recorded on the HAWG “issue list”. The surveys are now documented in the WGIPS and HAWG reports, but the intention was to also publish a separate survey report. This will be a fairly substantial document including all the relevant methods. The continued use of whatsapp kept participants from 2016 engaged in the process. The planning of the 2017 surveys is underway taking into account recommendations from WGIPS.

The provisional planning foresees to expand the survey areas to make sure that key spawning areas are being covered. The timing seemed right for most areas. Only for area 1 it was suggested to start later and finish later. People were unsure about area 4, because no spawning fish was observed in that area and only few acoustic marks.

Martin Pastoors said that fish move from area 1 to area 2 and 3.

Susan Lusseau pointed out that there was only pre-spawning in area 1 and therefore that area was not surveyed acoustically, but it was sampled.

Steven Mackinson said that this year area 1 will be covered later. Last year it was covered too early for convenience reasons. In May there will be a SPFA board meeting at which the timing and locations for this year’s survey will be reviewed with the skippers. He also pointed out that quality is key. The focus of the activities should therefore be on the main component of the fishery, i.e. autumn spawning in 6a North. Every commercial haul needs to be effectively sampled and one haul will correspond to one sample. He suggested limiting catches to about 120 tonnes, so that sufficient samples can be taken. The trawl sampling during the acoustic survey needs to be improved a bit to be able to partition to

species and ages effectively. Furthermore, biological samplers have to be confident with maturity staging.

Susan Lusseau said that in Q4 of 2016 herring was spawning mainly in the South and that there was nothing going on in the North at that time. The samples in Donegal Bay were maturing, but not quite spawning yet.

Maurice Clarke had the suspicion that some herring spawn in 6a North in the spring. He would be interested in looking into that.

Susan Lusseau said that the resources required might be quite significant, but she wanted to try to get some samples for the genetic analysis anyway. Having those fish in the baseline could provide an idea of how substantial that proportion is.

Edward Farrell explained that from a genetic point of view all markers are related to spawning and the whole definition of spring and autumn spawners was very hazy. It would therefore be interesting to get some more information.

Steven Mackinson agreed that this was an interesting topic, but had some doubts that it was relevant within the current project. Nevertheless, it might become part of the bigger picture. Although the issue seemed trivial at the moment, people had no idea what the scale of that component is and he supported doing something that would quickly give a better idea of the component. If people wanted to sample in January to March again, it will be necessary to bank some of the quota for this sampling.

Susan Lusseau pointed out that the annual herring survey pretty much samples the stations in the same area and the chairman concluded that with the proper instructions the survey could sample some of the fish.

Susan Lusseau agreed and said that she had to make her instructions clearer. She had been asking for spawning fish not realizing that there could have been a lot of samples of fish coming close to spawning.

Edward Farrell said that people had to consider whether there is a shift from autumn spawning to spring spawning, because the genetics assumes autumn spawning.

The chairman wanted to know how to proceed with this issue.

Steven Mackinson said that if people decided this was worth pursuing, then they should try to take an opportunistic look at taking samples for genetic analysis. Susan Lusseau could try to convince the people doing the survey to take some herring samples. At this point this will not lead to a targeted winter survey. The key issue will be to decide what to do about area 4. Fish are expanding and there will be a trade-off in space-time coverage. Steven Mackinson said that he will talk to the skippers to identify the exact spawning locations.

### **6a South and 7b,c**

Michael O'Malley explained that the survey objectives for 2017 were to conduct an acoustic survey of pre-spawning aggregations of herring in 6a South and 7b,c and to improve the design from 2016, particularly timing. In 2016 herring was found in only two locations indicating that the survey probably took place too late. A larger area was to be covered this year to include more of 7b and expand further North to approximately 57°N. In terms of timing Micheal O'Malley considered October and November to be suitable months.



The chairman wanted to know whether there was a reason why September was not mentioned, but Michael O'Malley said that he was open for suggestions and if people thought September was a better option, then the survey could take place in September.

Edward Farrell asked whether maturity data from the groundfish surveys were available since these data could reveal when the post-spawners show up.

Maurice Clarke agreed that it would be interesting to look at maturity distribution in 6a South.

Steven Mackinson thought that there was a risk that the survey would take place too early, so that it will not be possible to get spawning samples.

Susan Lusseau was worried that the new survey design will not stick to the spawning areas in which case it would not be possible to differentiate between 6a South and 6a North samples.

Michael O'Malley pointed out that last year the survey did not contain the stock. The primary objective this year was to cover the stock. While the exact date had not been set yet, late October/early November seemed the most reasonable. He also said that a smaller net/vessel was needed to fish in shallow areas if the aggregating behaviour observed last year persisted.

The chairman thanked Michael O'Malley for his presentation and decided to discuss the details of the survey at a later time.

## **9. Proposed recovery-rebuilding plan**

The chairman said that most of the items discussed in February have been taken on-board in the new draft. He wanted to go through it again on a paragraph by paragraph basis to see if any amendments were necessary. He suggested starting with a background section before listing the objectives.

Irene Kingma said that although she was not an expert on herring, the document did not represent a rebuilding plan in her view. To her it read more like a monitoring plan, but she did not understand how the stock would recover by following this plan.

The chairman said that this was a valid point, but he also said that fishing mortality was not the reason for the stock being so low.

Steven Mackinson said that the only measure that can be adjusted is fishing mortality. It was very likely that any of the measures that can be taken will have no impact whatsoever, because it was not possible to change the environment and decide to have some good winters. All that can be controlled is fishing mortality.

The chairman pointed out that this was also explained in the document, but he suggested putting it into the background section.

Martin Pastoors agreed to covering the issue earlier in the document, so that it will be more prominent.

The chairman concluded to have the background section first and to add in article 6. Regarding the objectives there were a number of editorial things. He suggested to take out "improve the knowledge base for these two stocks", because the stocks have not been mentioned yet. Under "subject matter" the word regulation should be taken out, because this was not a regulation. The same applied to other sections where the word regulation is used.

The next section was definitions. The chairman wondered whether spawning samples should be included under genetic sampling.

However, Martin Pastoors said that in the future samples will not necessarily only be taken from spawning fish and Edward Farrell agreed that it would be good to keep some flexibility in that regard.



The next section was about reference points. Maurice Clarke suggested to define rebuilding targets in this section which he thought was B<sub>pa</sub>. Therefore, he suggested to mention B<sub>pa</sub> as rebuilding target under article 4.

The chairman asked Maurice Clark whether he considered it difficult to include the TAC setting procedure in the rebuilding plan.

Maurice Clark said that article 5.4 on setting the monitoring TAC to 5.800 tonnes was the problem.

Steven Mackinson said that this issue had already been discussed and the most important aspect was to assess the consequences of the monitoring TAC, whether a specific number is being mentioned or not. The level of the monitoring TAC can either be fixed in the plan, but it can be left to the December Council to decide what the monitoring TAC should be.

Maurice Clarke said that there was no adequate basis for evaluation. The monitoring TAC was already there and it might be easier just to mention that. It will be applied to the whole stock.

Gerard van Balsfoort wondered if 5.5 was not redundant if 5.4 was included and therefore suggested to leave it out.

Maurice Clarke agreed that would be fine.

Susan Lusseau said that the monitoring TAC is based on ICES advice. Rolling that over would be the best strategy. However, she also suggested having a safeguard in case things go wrong. Setting a target f below B<sub>lim</sub> was dangerous in her view.

Steven Mackinson said that article 5.5 was the safeguard. If actual catches turn out higher than what was set, article 5.5 gives a reflection opportunity on whether the TAC should really be 5.800 tonnes.

After further discussions it was decided to leave 5.1, 5.2 and 5.3 unchanged, to change 5.4 in a way that it sets the monitoring TAC at status quo level which is currently 5.800 tonnes and to change 5.5, so that "on herring in 6a and 7b,c" is included at the end of the sentence.

Articles 6 and 7 were agreed on without amendments.

Regarding article 8 Susan Lusseau explained that she had included text on ecosystem considerations, not least because it will be relevant in the long term, e.g. when looking at MSC certification.

It was concluded that Martin Pastoors would present a clean document at the Working Group meeting on the following day. Subsequently, people will be asked to comment on the draft plan within two weeks after which it will be submitted to the Executive Committee for written procedure.

## **10. AOB**

Gerard van Balsfoort wanted to know when to decide on the planning.

Martin Pastoors suggested around 22 May when meeting the skippers.

Gerard van Balsfoort said that he will leave on holiday on 5 June. Late May or very early June would be ok for him.

## **11. End of meeting**

The chairman closed the meeting at 17:00 hrs.



## Action items

- Decide on a date for the next meeting, probably in the autumn (focus group)
- Find out how genetic sampling could be included under the data collection framework (focus group)
- Present rebuilding plan at Working Group II meeting (Martin Pastoors)
- Discuss how to share the scientific monitoring TAC in 2017 among relevant vessels (chairman, Gerard van Balsfoort, Ian Gatt, Patrick Murphy)
- Decide on timing and areas of the surveys (chairman, Ian Gatt, Steven Mackinson, Gerard van Balsfoort, Martin Pastoors, Maurice Clarke, Michael O'Malley, Susan Lusseau)
- Follow-up on morphometric analysis (chairman, Susan Lusseau, Maurice Clarke)
- Present genetics data at WKSPLIT (Edward Farrell)
- Provide cost overview of surveys (chairman, Martin Pastoors, Gerard van Balsfoort, Ian Gatt, Steven Mackinson)
- Ensure that the trawl survey will set aside samples (Susan Lusseau)
- Send letter to ICES to comply with its guidelines regarding data collection (chairman, Steven Mackinson, secretariat)
- Sort out transfers from North to South and from The Netherlands to Ireland (chairman, Gerard van Balsfoort)
- Draft a letter on behalf of the Pelagic AC regarding morphometric sampling (chairman, secretariat, Maurice Clarke)

