

Whelk Management Group Meeting

6th July 2022 via Microsoft Teams

Attendees:

Name	Organisation
Andrew Brown	MacDuff Shellfish
Andy Lawler	Cefas
Aoife Martin	Seafish
Charlie Abbott	Lynn Shellfish
Charlie Brock	Brighton and Newhaven Fish Sales
Charlotte Colvin	Bangor University
Chloe North	Western Fish Producers' Organisation
Ella Brock	Seafish
Emma Plotnek	Fishing Into The Future
Gwladys Lambert	Cefas
Hannah Fennell	Heriot-Watt University
Hubert Gieschen	Marine Management Organisation
Jessica Duffill Telsnig	Marine Management Organisation
Jim Evans	Welsh Fishermen's Association
Joanna Messini	Defra
Lewis Tattersall	Seafish
Mark Merrick	AM Seafoods
Matt Coleman	Bangor University
Michel Kaiser	Heriot-Watt University
Natalie Hold	Bangor University
Phil Wensley	Welsh Government
Robert Clark	Association of IFCAs

Apologies:

Gemma Cripps	Defra
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Issues of interest (open discussion)

Update on anecdotal whelk data gathering project (Hannah Fennell, Heriot-Watt University)

1. Group members were reminded that this project is centred around an online questionnaire issued to UK whelk fishers at the beginning of 2021, which gathered information regarding fishers' experience of the physical characteristics of different whelk populations around the UK. The goal of this project is to improve understanding of how different populations exist around the UK, and the link to environmental conditions, to inform management decisions. Results are presently being written up into a project report which will be circulated amongst group members once completed.
2. In early 2022 a collaborative WMG group were awarded FISP funding to undertake whelk research including an expansion of the anecdotal data gathering pilot study. The online survey for whelk fishers will be re-launched to capture responses from regions which were underrepresented in the original responses. Further work will also feed into other FISP projects around whelk bait alternatives and gear selectivity to minimise catches of juvenile whelks.
3. Future anecdotal data gathering work will be conducted via both online questionnaires and face to face interviews to increase the representativeness of results. The survey will consist of broadly the same questions as the original to maintain comparability, however some questions may be added based on feedback from the pilot study.
4. The group acknowledged the importance of this work in terms of making maximal use of the valuable experience of whelk fishers for informing evidence-based management.

Fisher input into bait alternatives & gear selectivity projects (Prof. Michel Kaiser, Heriot-Watt University)

5. FISP funded projects looking into whelk bait alternatives and gear selectivity are currently looking for volunteers to join an industry advisory group which will be central to the success of these projects by:
 - a. Collating ideas regarding gear modifications for reducing catches of juvenile whelk
 - b. Exploring the potential effectiveness of proposed gear modifications
 - c. Exploring how well different natural baits perform and informing discussions on bait alternatives
 - d. Providing information on previously trialled baits and their effectiveness
 - e. Determining key criteria for whelk bait, e.g. ease of handling
 - f. Providing advice and information on riddling techniques employed in different regions
 - g. Organising field testing with volunteer fishers and/or on the harbourside
 - h. Prioritising work areas to ensure that resources are efficiently used
6. It is envisaged that the industry advisory group would meet up to four times across the duration of the project (until February 2024) and have one to one phone calls as required to help direct research. WMG members are invited to contact Prof. Kaiser directly if they would like to be part of this group.

Other comments from group members:

7. Concerns raised that molluscan fisheries are not performing well in terms of progress towards net zero carbon targets. It was requested that the group could place more focus on exploring this issue, what it means for the whelk sector, and how the sector should appropriately respond.

Update on development of the whelk fisheries management plan (Lewis Tattersall, Seafish)

8. Work is ongoing on development of draft content for the whelk in English waters FMP; this is being progressed by the FMP working group of the WMG. Once finalised by the working group, draft content – including FMP objectives and actions – will be circulated to the wider WMG for review and comment.
9. A first draft of the whelk evidence statement has been submitted to Defra. This document compiles all available evidence on the English whelk fishery and is considered a live document and will be continually updated with ongoing research until March 2023.
10. Seafish have drafted a stakeholder engagement strategy, which lays out plans for how stakeholders from both within the WMG and beyond will be engaged throughout the FMP development process until delivery of the draft FMP to Defra in March 2023 and sign off by the secretary of state in September 2023. A stakeholder mapping exercise will be undertaken over coming weeks to better understand the range of stakeholders who will need to be involved.

Review of whelk FMP draft objectives:

11. The group was presented with a brief overview of the most recent draft of whelk FMP objectives, which have been identified by the FMP working group as important for inclusion within the whelk

FMP. The working group is continuing to develop objectives focused on climate change and the social / economic benefits provided by the whelk fishery.

Comments were gathered from group members on draft FMP content and are summarised below:

12. Group members acknowledged that maximising economic value might not maximise economic benefits, therefore it is suggested that the wording of this objective should be amended to 'optimise' rather than 'maximise'.
13. There may be tangible activities delivered via other FMP objectives which feed into social and economic goals, for example ensuring the appropriate data is collected to track against indicators of social and economic prosperity.
14. With data-limited stocks, standardisation of CPUE using a standardised gear will be a key point of interest in terms of developing viable methods of monitoring whelk stock status. Industry should be engaged to build up a long-term time series of CPUE data, which can be used to monitor stock status and support corrective action if CPUE declines.
15. Economic sustainable yield, which considers the fishery as a collective rather than at the individual level, could be looked at as an alternative to biological maximum sustainable yield (MSY) for whelks. Maximum economic yield will likely differ between large and small scale fishing operations.
16. This work should tie into industry's goals for the fishery in terms of increasing the value of the product. Acknowledgement that value added to the product could increase resilience to market fluctuations and increase profitability.
17. Members highlighted the need to consider that the FMP will likely require a Habitat Regulations Assessment (HRA), which may prove complex if sufficient data is not available to fulfil HRA requirements.
18. In terms of progress towards net zero targets, much of whelk industry consists of small inshore vessels therefore is an ideal candidate for electrification and/or using alternative fuels. Members were informed that a number of electric potters operating out of Brixham have recently received MCA sign off.

Update on progress of the WMG science sub-group (Natalie Hold, Bangor University)

19. Work is ongoing on the whelk research plan, which will underpin the FMP by drawing out knowledge gaps and the research that needs to be carried out to address them. Seafish has produced a first draft based on the work and discussions of the science sub-group, feedback will be gathered and the draft will be further refined before it is shared with WMG members.
20. Seafish has carried out a data inventory for whelk fisheries, gathering metadata on existing data assets, i.e. what information already exists, what format it is in, how long the time series is etc. This will be incorporated into the FMP evidence statement and research plan. The science sub-group have also flagged the need to gather information on ongoing or recently completed research so the WMG has a full picture of the whelk science landscape.
21. The science sub-group are reviewing the function of the group; the SSG was set up to identify knowledge gaps and develop a research plan as part of the FMP, as this work comes to an end there is an opportunity to review the role of the group and the value that it can bring. A proposal was presented at the last meeting for discussion and Seafish are now updating the proposal before finalising with the group. The group is exploring opportunities around:
 - a. Supporting and developing whelk research proposals
 - b. Inputting as appropriate to commissioning research
 - c. Reviewing scientific research

- d. Reviewing the scientific aspects of FMP delivery each year, and
 - e. Producing an annual report on all whelk research undertaken or commissioned that year
22. In early 2022 Seafish received funding support for a FISP Part A project, this is to develop a research proposal which can go into a future round of FISP funding – the SSG are involved in determining what research activities (drawing on the research plan) could be appropriate for FISP funding, who would be involved, and what would be in scope. Seafish will develop a research proposal this month with a view to submitting an application to a future round of FISP funding.

Update on Shellfish FMP stakeholder engagement strategy (Lewis Tattersall, Seafish)

23. Seafish has developed an overarching stakeholder engagement strategy for the shellfish frontrunner FMPs (crab & lobster, whelk, and king scallop); this strategy provides a general framework for how FMP delivery leads can engage with stakeholders through FMP development to ensure the process is transparent, collaborative, and that any issues in content are scoped out early in the development phase. Seafish will work with the delivery leads and working groups to cater the engagement strategy to each species-specific FMP.

Next steps following the whelk effort management workshop (Aoife Martin, Seafish)

34. Comments on the draft workshop report will be taken offline; discussions will focus on the four hypothetical whelk management scenarios drafted by Seafish to provoke further discussion of management options. Members are encouraged to think creatively about management options and submit any additional comments to Seafish by email after the WMG meeting.

Comments were gathered from group members and are summarised below:

35. Any agreed management scenario would likely represent a temporary halt to the increase in whelk fishing effort with a long-term management plan being developed once more evidence is available. A key aspect of any future management plan is the ability to respond to changes as more evidence becomes available.
36. There was general consensus that MLS is an important management tool for whelks despite research doubts around efficacy. Fishers are familiar with the concept of MLS and how it protects stock health, and the backstop of MLS is an important measure to prevent stock depletion even where effort controls are in place.
37. Members suggested that non-regulatory tools could be a viable alternative to a regulated variable national MLS, however concerns were raised that if an MLS was not regulated there would be nothing to prevent vessels from outside this jurisdiction from targeting smaller whelks for which there is a market preference in certain regions.
38. Concerns were raised around how 'whelk dependent' vessels were defined in Seafish economic analyses; the report used the standard definition of whelk constituting >50% of the value of landings, however it was noted that some vessels may land less whelk than this but consider themselves dependant on whelks, alongside other species, to remain economically viable.
39. Clarification that management delivered via the FMP will focus on fisheries outside of 6 nautical miles, but will look to ensure alignment with local IFCA regulations (e.g. MLS byelaws) where appropriate.
40. Attention was drawn to a 500 pot limit 'gentlemen's agreement' implemented by a number of Welsh vessels fishing inside of 6 nautical miles. This could be seen as an example of where fishers taking an innovative approach to stock protection. The pros and cons of such approaches should be considered, as well as the implications from a business perspective. Some concerns that similar initiatives in other regions were successful until the implementation of higher IFCA pot limits – which were then considered as a target for pot numbers.

34. Any future management regime must be sympathetic to differences in operational mode between different sectors of the whelk fleet, as the operations of nomadic whelk vessels are not comparable to smaller vessels which are incapable of travelling to target whelk stocks beyond their locality. Management must allow flexibility for inshore artisanal vessels to change gear-type when pursuing various fisheries. The WMG is well placed to bring together all parts of the whelk sector to develop management which is suitable for both nomadic and day-boats.
35. Suggestions around eliminating MLS in favour of a tonnage based management system. This would require research into market demand for whelk size classes as elevated demand for smaller whelks could risk increased effort on this size range, thus risking stock depletion.

Comments from group members regarding permits:

36. Members acknowledged that ringfencing whelk fishing effort will be a key initial management intervention to protect against local stock depletion. Such schemes should remain adaptive and responsive to changes in available information around stock status.
37. Concerns raised regarding scenarios based on permits rather than entitlements; more consideration should be given to the management proposal, the entry criteria, transferability, and how years affected by covid and/or the fuel crisis will be accounted for when determining a reference period.
38. Concerns that permit schemes could increase barriers to entry into a mixed fishery for small scale artisanal fishers dependent on the ability to fish whelks for financial sustainability. This issue will need to be balanced with limiting entrants and restricting effort on whelk stocks.

Whelk population structure research (Declan Morrissey, University of Essex)

39. The University of Essex has carried out research to characterise whelk stock structure by analysing DNA from samples of whelks from the southern North Sea, Channel, and Irish Sea. The study found that whelks sampled consisted of a single genetic population, which was unexpected considering their limited dispersal potential. Genetic variation was explained by distance; whelks within 50km of each other having a higher chance of being related than those further apart.
40. Findings show a 'stepping-stone model' of population structure, whereby one group of whelks breeds with another nearby to maintain the population. This does not mean that distant populations are directly related, and management must maintain the integrity of each of these 'stepping-stones' by preventing overfishing even at small scales.
41. The study found environmental barriers to population connectivity, namely the Thames estuary which presents a thermohaline separation between estuarine and coastal whelk populations. Further sampling of whelks from different IFCA districts would assist with determining the mechanisms underpinning this observation.
42. Concerns were raised over the small sample size (15 whelk per site) spread over a large area of the country, as well as the placement of sample sites within IFCA districts. However, the genetic techniques used in this study require samples of only 4-6 individuals per site to generate statistically robust results.
43. Morphological variations such as size range were not reflected in the genomic structure of whelk populations which could suggest that such differences are driven by environmental factors. This may be investigated further by repeating this analysis to include further sampling within each area, emulating similar work undertaken in Iceland. Future work might focus on gene expression in response to environmental circumstance, which would require sequencing of the whelk genome e.g. within the tree of life project. Genomic versus environmental drivers of growth could also be investigated using transplantation experiments where whelks are grown under controlled conditions.

44. Members highlighted that genetic analysis is expensive, and the knowledge of WMG members could be useful in advising on where sampling efforts could be targeted (e.g. identifying key environmental features) in order to support the efficient use of funding.

Actions

Number	Description	Responsible
9.1	Distribute final report of the anecdotal data gathering project once completed.	Hannah Fennel & Thomas Fortier, Heriot-Watt University
9.2	Members to contact Prof. Michel Kaiser if they are interested in joining the industry advisory group for the whelk bait alternatives and gear selectivity projects.	All members
9.3	Distribute draft FMP stakeholder engagement plan.	Seafish
9.4	Update the group on the future role and remit of the WMG science sub-group once feedback on the proposal has been finalised.	Seafish
9.5	Members to provide feedback on the whelk effort management workshop summary report and management scenarios via email to Seafish	All members
9.6	Schedule a meeting for further discussion around management scenarios.	Seafish
9.7	Extend an invite to the University of Essex for a representative to join the WMG science sub-group.	Seafish