Clyde 2020 - Joint Steering Group and Research Advisory Group meeting

Facilitated by the Clyde Marine Planning Partnership
8th December 2020, Online meeting
9:30 – 12:00

Chair	Anthony Gallagher
Steering Group Attendees	Alex MacFie (AM) (Field Studies Council), Alex Watson-Crook (AWC) (SIFT), Bill Turrell (BT) (Marine Scotland Science), Calum Duncan (CD) (Scottish Environment LINK), David Donnan (DD) (NatureScot), Elaine Whyte (EW) (CFA), Howard Wood (HW) (CMPP Board member), Lisa Reilly (LR) (Clydeport Operations Ltd.), Lucy Kay (LK) (COAST), Robert Younger (RY) (SCFF), Simon Macdonald (SM) (WCRIFG Chair)
Research Advisory Group attendees	Bryce Beukers-Stewart (BBS), David Bailey (DB), Mike Heath (MH), Sally Campbell (SC), Scot Mathieson (SM), Tanja Miethe (TM)
Also Attending	Aisling Duncan (Marine Scotland), Damon Hewlett (Marine Scotland), Madlaina Michelotti (MM) (CMPP), Neil Burns (Scotland's Rural College), Sam McFarlane (SM) (CMPP)
Apologies	Lorraine Holdstock (Argyll and Bute Council), Mhairi Alexander (RAG), Sandy Downie (SEPA)

Agenda

Item		Time	Lead
Virtual tea and coffee		**9:15-9:30**	
1.	**Welcome and Apologies**	9:30-9:35	Chair
2.	**Actions from last meeting**	9:35-9:40	Chair
3.	**CMPP update** • Clyde Regional Marine Plan • CMPP Governance discussions, including considerations of the future of Clyde 2020 • Staff changes	9:40-10:10	Madlaina Michelotti
4.	**Sustainable Management of UK Marine Resources***	10:10-10:30	Mike Heath
5.	**CMPP Research list**	10:30-10:40	MM
6.	**Whiting life stage distribution and connectivity***	10:40-11:25	Neil Burns & David Bailey
7.	**Research Advisory Group update ***	11:25-11:55	MH & RAG
8.	**AOB**	11:40-11:55	All
9.	**DONM** - Action Plan workshop: 13th January 2021, 10:00-13:00 - Provisional meeting date: morning of 23rd February 2021	11:55-12:00	Chair
10.	**Close**	12:00	Chair

* Presentation slides from these agenda items were shared with these minutes.

1. Welcome and Apologies

The Chair welcomed attendees and provided an overview of the agenda. Attendees introduced themselves and the Chair read out the apologies listed above.

2. Actions from last meeting

The Chair provided the following updates on the actions from the last meeting:

1. RAG to check links with research/publications and areas of Action Plan are correct – *completed*.
2. CMPP staff to create a shared file so RAG can continuously update the research document – *completed*.
3. SM to email RAG members to discuss potential students and the RAG's involvement in the panel discussion – *completed; however the Clyde 2020 event was postponed due to Covid-19 restrictions*.
4. Steering group members and RAG to confirm attendance to Clyde 2020 event by the 27th March – *The event was postponed due to Covid-19 restrictions. The event is planned to take place next summer during Glasgow Science Week.*

3. CMPP update

Clyde Regional Marine Plan

Madlaina Michelotti informed the group that the draft Clyde Regional Marine Plan and associated assessments were submitted to Marine Scotland for review in July. The review process is still ongoing and it is anticipated that feedback will be received early next year. The review process has been delayed due to reduced staff capacity within the Marine Scotland team and wider pressures on the organisation. The statutory consultation will likely take place in the spring next year.

CMPP Governance discussions, including considerations of the future of Clyde 2020

Discussions on the CMPP governance structure, including the future of Clyde 2020 and the Research Advisory Group (RAG), are currently on hold as we await the outcomes of and/or recommendations from the Environment, Climate Change and Land Reform (ECCLR) Committee's review into regional marine planning and Marine Scotland's internal review of regional marine planning. These discussions will likely be resumed early next year once there is more clarity on the direction regional marine planning will take in Scotland. Despite these changes in timings, work is still ongoing that will contribute towards these discussions. For example, a workshop is scheduled on the 13th January to review the CMPP Action Plan. The Clyde 2020 Steering Group and RAG are invited to this workshop and a calendar invite will be circulated after the meeting.

Damon Hewlett clarified that Marine Scotland's review is internally focussed and has a narrower focus than the ECCLR review. Marine Scotland will mainly focus on exploring different governance structures for Marine Planning Partnerships and Local Coastal Partnerships. The final report from the ECCLR inquiry will be published within the next two months.

Staff changes

There have been some changes within the CMPP staff team. At the end of October, Fiona Mills (CMPP Manager) and Sinead Sheridan (CMPP Officer) moved onto new jobs within NatureScot. The Manager role will not be recruited for and recruitment for the Officer role is currently in progress. The application deadline is the 14th December and interviews will take place in January.

4. Sustainable Management of UK Marine Resources

Mike Heath gave a presentation about the Sustainable Management of UK Marine Resources

(SMMR) proposal that was submitted in October for the project *Co-creating a multi-value approach to sustainable marine governance (MarCo)*.

Key discussion points:

- The ability of the SMMR project to help address the democratic deficit in communities was noted and whether Scotland's regional marine planning process is bottom-up was questioned. The importance of including economics, in particular the cost of lost opportunities as a result of activities, in decision-making scenarios was welcomed.
- The timeline for project feedback was questioned – when will the final projects be selected? Initial feedback will be received from the reviewers on 1st February and the project team will have one week to respond to this feedback. It is anticipated that the project team will be informed by April regarding whether the project has been successful or not.
- A concern was raised regarding the organisations represented on the project steering group. These concerns have been discussed and will be addressed if the project is successful.

5. Research and knowledge gaps in the Clyde Marine Region

MM explained that CMPP staff have compiled a list of research gaps which were identified during the plan development process when drafting the Clyde Marine Region Assessment and developing policy. CMPP staff would also like to include the research priorities identified by the RAG in 2016. MH will coordinate the review of these research priorities with RAG members. Once completed, the list will be published on the CMPP website to inform the development of future projects.

Action (1) – MH to coordinate RAG review of the research priorities identified in 2016.

6. Whiting life stage distribution and connectivity

Neil Burns presented the methodology and results from the following two papers that were published as outputs from his PhD project (2013-2017), which was supervised by David Bailey and Peter Wright (Marine Scotland Science): A method to improve fish selectivity through age targeted fishing using life stage distribution modelling (2019) and Otolith chemoscape analysis in whiting links fishing grounds to nursery areas (2020). The research explores life stage distribution and connectivity of whiting across the west of the UK and highlights the importance of the Firth of Clyde and the North Irish Sea as nursery grounds for whiting.

Key discussion points:

- Attendees thanked NB for the interesting presentation and acknowledged the value of this novel technique.
- Understanding life stages is challenging but the ability to produce maps to show distribution at different life stages makes the results easier to visualise and discuss.
- It was questioned whether the research explored the impact of improved gear selectivity on the size and age of the fish. The number of whiting caught relative to Nephrops catch is quite small and the discard levels are not compared to the population size. Future work to identify where or how much of stock is removed and not used effectively would be useful and could inform spatial management.
- It was questioned whether seasonality was considered in the research. The sampling took place alongside other scientific surveys so they match the scientific trawl times. Both adult groups were sampled in February and March and the age-0 fish were sampled in October and November. No seasonal shifts were noticed between years. Adult distribution outside of spawning was not investigated.
- Attendees were interested in understanding the next steps in terms of policy implications. The paper has only been published recently so discussions are in early stages. Peter Wright will be sharing the results to an ICES working group. Otolith microchemistry has not been used very

often to inform ICES management decisions but it has been used to inform management for a few divisions for haddock. There is no real division for whiting stock between the Iris Sea and West Coast of Scotland although they are currently managed according to two separate ICES Divisions. The research will influence management but it is a slow process.

David Bailey shared a presentation highlighting some recent results from Natasha Walker's PhD project which is investigating links between habitat and early growth and survival of cod, haddock and whiting in the South Arran MPA. Results show that a consistent predictor of presence across cod, haddock and whiting is benthic biodiversity.

Key discussion points:

- Interest was expressed regarding when the work will be published and what the policy implications will be. The seabed biodiversity and characteristics maps will be published first and a paper on fish biodiversity and growth rates will be published next. In terms of management implications, actions that increase or maintain benthic biodiversity are more likely to support fish species. The intention is to carry out this work across Scotland to see whether they are general findings or Clyde specific.
- The intention to carry out this research across Scotland was welcomed. EW also encouraged involving local fishers in future work. A challenge with carrying out this research is accessing boat time because it is expensive. DB noted that it would be extremely beneficial if CFA members would be interested in participating in surveys on their vessels. If the MarCo project is funded, it will also provide an additional opportunity to collate and integrate fisheries data and knowledge from fishers and scientists.
- Whether the precautionary principle should be applied to policy based on recent work was questioned. From a regional perspective, the precautionary principle is a guiding principle of the draft Clyde Regional Marine Plan and it is applied through the policies in the draft Plan.
- The national discussion paper on future fisheries management in Scotland mentions exploring the potential to protect nursery areas and areas where there are juvenile fish. It was questioned whether discussions were taking place with Marine Scotland so that this research can feed into this process. All of the work has been carried out in conjunction with Marine Scotland Science so they are well informed.

7. Research Advisory Group update

MH provided an update on the work the RAG has been carrying out since the last meeting and gave a presentation summarising current and completed PhD projects. Since the last meeting, the RAG have: provided updates to the 'Clyde Science' inventory; responded to ad-hoc requests for advice; and collaborated on submitting PhD project funding bids to the NERC/MASTS Doctoral Training Partnership.

Current PhD projects funded through NERC/MASTS and other sources can be found in the Clyde Science document (Projects 14-20, pages 6-7). The following PhD project started this year: Understanding the consequences of scallop dredging in relation to seabed habitat types, conservation features and other industry sectors. This project is funded by Heriot Watt University, NatureScot, MSS and the Universities of York and Bangor and the PhD candidate is Maira Fenton.

Hazel Smith and Matthew Pace have recently completed their PhD projects and are awaiting examination. Outputs from Hazel's project include new maps of Nephrops habitats and burrow density and a new model of Nephrops population dynamics and its linkage to the life cycle of the parasite Hematodinium. The Nephrops model shows that fishery yields are reduced by 10-15 % by

the presence of the Hematodinium parasite and landing visually infected animals instead of discarding them at sea could reduce the parasite load and increase landings by 2-5 %.

Outputs from Matthew's project include new maps of seabed sediment properties in the Clyde (mud/sand/gravel composition, porosity, permeability, carbon and nitrogen contents) and a spatial ecosystem/food web model of the Clyde. Trawling on muddy sediments produces detectable effects on nutrient chemistry, and benthos species richness and diversity. Ecosystem model experiments show that gear changes to reduce abrasion mortality on benthos and trawling by-catch would enhance yields of harvestable resources as well as the abundance of top predators.

Key discussions points:

- Attendees expressed an interest in the ongoing projects and the outputs from the recently completed projects. The outputs will be useful to inform ecosystem-based management, wider stakeholders and initiatives, e.g. members of the WCRIFG and the beneficial use of dredged materials initiative.
- It was questioned whether the impact of aquaculture can be included in the ecosystem model in order to assess the impact of finfish farms on the wider ecosystem. MH explained the impact of finfish farms can be assessed by including nutrient emissions in the model.

8. AOB

The following comments were raised:

- Scottish Environment LINK will be launching a recovery plan soon.
- How new science will influence policy and how policy makers can engage scientists at the right time should be considered going forward. Consideration also needs to be given to how science can be summarised best, especially as there will be opportunities in the future to engage with discussions related to the future of fisheries management.
- Analysis of responses to the consultation on Proposed New Mandatory Fishing Measures for Wild Wrasse Harvesting was published on the 3rd December.

9. DONM

- Action Plan workshop: 13th January 2021, 10:00-13:00.
- Provisional next Clyde 2020 meeting: morning of 23rd February 2021.