

NCAT Project Next Steps Minutes

Participants

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Karen Dwyer, DFO Science
Brian Healey, DFO Science
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Corey Morris, DFO Science
Emilie Novaczek, DFO Science
Dwayne Pittman, DFO Science
Greg Robertson, ECCC
Lorelei Roberts, GNL
Lisette Delgado, Dalhousie University
Sara Iverson, Dalhousie University
Rob Lennox, Dalhousie University
Daniel Ruzzante, Dalhousie University
Joseph Pratt, Ocean Tracking Network
Fred Whoriskey, Ocean Tracking Network
Jon Fisher, Memorial University
Renaë Butler, Association of Seafood Producers
Bruce Chapman, Atlantic Groundfish Council
Steve Devitt, Atlantic Groundfish Council

After introductions, Bruce provided a brief summary of the purpose of the meeting which was essentially to regroup project participants to begin planning of the next phase of the NCAT project including remaining field operations, data collection and subsequent analysis and data incorporation into the DFO assessment.

Steve provided a short review of the timeline and significant project deliverables to date.

Lisette provided a [presentation](#) on preliminary results of the NCAT genomics and telemetry results.

Q&A after Lisette's Presentation:

- When are these results going to be evaluated relative to previous data and longstanding understandings of cod movement?
- Are the different genome's in the Labrador pockets linked more to the 4RS3Pn cod stock or are they unique?
- Where are the juvenile cod that are being generated by the offshore resident fish?
- We have lots of genetic sampling as long as the funds continue to do the sequencing.
- Question about the survivability of the offshore detected fish. What % have only been detected near the tag deployment location within x timeline. 96% survival rate of inshore tagged cod and Bratney experiments noted 91% survival after 5 days. **Analyze the data detections by time – Lisette requested to provide feedback on this profile.**

NCAT Array and Tagging – Operational Issues

A broad ranging discussion on the expected life of NCAT receiver array and options for deploying the remaining NCAT tags was held. Main points from that discussion are as follows.

- **Consensus that all participants would like to see the life of the NCAT receiver array extended beyond the current expected life of ~6 years, which would expire in early 2026.**
- There could be up to 5 years life left in the ~470 unused tags.
- Tagging issue is linked to the battery life necessary to function of the acoustic releases. To ensure sufficient opportunity to detect tags deployed this/ next year, the array life would need to be extended. Would the project envision funding to continue?
 - **AGC/OTN to develop a draft budget for refurbishment and redeployment of receivers (spin off a discussion about array design).**
 - **DFO (Emily) and OTN (Fred/ Joe) and the FIP (Steve) to develop a list/plan to recruit internal/ potential funding from other species/programs.**
- A lot of what we don't know relates to the offshore spawning components. Little value in adding data to the inshore residency as there is already an on-going, well established data set to gather this information. We need to know more about the offshore residency question. **Conclusion was for NCAT to stay focused on offshore tagging locations.**
- Option of tagging during RV survey was discussed: **Agreed in principle to develop a plan (by September) for opportunistic tagging cod caught in regular Fall and Spring survey tows, but not extra tows because DFO cannot spare the time.**
- Jon asked about towed receivers in Hawke Channel and Funk Island Deep to see if can ping the cod. Corey mused this technology has not been productive in the past. Joe added that Innovasea is in the early testing phase of the newest version but this is not available commercially yet.
- Wave glider uploading is on schedule for August and would be anticipated to continue annually during mid-late summer.
- Standard data processing time is up to two months including QA/QC.
- Genetic sampling: sequencing 600 samples would cost about \$40K. **FIP to take the lead to generate a plan to raise \$20-40K.**
- Data Sharing: Our respective interests are the same. Data sharing agreement for DFO to share their tag information, contingent on data being available for use in the assessment process and not tied up in Primary Investigator publications. Timeliness of data handling is a key concern for DFO. **Karen (informed by OTN protocol) to work with DFO colleagues to generate a draft Agreement by the end of June.**

Analysts & Products

- DFO talked about collaborations on developing products. Agreed that parties would communicate on publication developments and partners should have an opportunity to provide input/ feedback on project related publications.
- Lisette is funded through September 2024 (including an initial six-month funding top-up by the FIP from July – December 2023) and will continue to work on a dual stream of genomics research linked to the telemetry results. Intention is to produce two publications, one related to temporal linkages in genomics covering 1990s, 2010 and contemporary periods. Second publication will focus on genomics linked to the telemetry results.

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- OTN working on a plan to fund a student to analyze the broader Atlantic cod population movements linked to data from the BIO grey seal research program. This may also include deployment of mobile receivers on grey, harp and hooded seals.
- DFO is interested in a postdoc (based at DFO) to work on the assessment side of this project. **Karen to pen an initial (industry or academic) proposal by July 30 and then provide to the FIP for its perspective (links to MSC, industry value). AFF, IRC, NSERC options.**

Steve to follow up with partner contacts over the coming week to confirm progress on the above items.