



Report for the third meeting of the Clean Catch National Advisory Board – 10 November 2025

Online



Overview

- This report details discussions and outcomes of the meeting of the Clean Catch National Advisory Board (NAB) held 10 November 2025, and follow-up discussion and outcomes.
- Meeting aims were:
 - To update the NAB and facilitate discussion on the progress of the new Eastern England Fish Producers Organisation (EEFPO) North Sea trial, and plans for testing passive acoustic reflector (PAR) devices.
 - For the NAB to advise on adoption of the Imvelo tension monitoring device for Bird Scaring Lines, and the process of providing input to the design of the EEFPO North Sea trial.
- Comments by NAB members are not attributed.
- Accompanying meeting slides can be found here [link to come].

Outcomes

- The NAB **noted** the updates.
- The NAB discussed and **provided advice** on adoption of the Imvelo tension monitoring device for Bird Scaring Lines, and the process of providing input to the design of the EEFPO North Sea trial.
 - Jean Duggan (RSPB) took an action to obtain more information about the data and insights which could be obtained from the tension monitoring device.
- The Clean Catch team **took actions to:**
 - Take forward the recommendation of creating an expert working group to provide input on the mitigation phase of the EEFPO North Sea trial.

- Regularly remind skippers participating in trials to continue reporting bycatch of sensitive species as per legal requirements (in addition to reporting of data for research purposes).
- Explore how to facilitate further discussion among NAB members after a meeting closes.
- Hold another online meeting of this format early next year.
- **NAB members were invited to:**
 - Recommend any fisheries they have contacts in and which might be interested in to provide data for inclusion in the power analysis to inform future PAR trials.
 - Put forward topics for future NAB meetings.

In attendance

NAB members:

- Al Kingston (University of St. Andrews)
- Ali Hood (The Shark Trust)
- Brendan Godley (University of Exeter)
- Dale Rodmell (EEFPO)
- David Warwick (Seafish)
- Jean Duggan (standing in for Bernadette Butfield) (RSPB)
- Mike Roach (standing in for Mike Cohen) (NFFO)
- Rebecca Allen (Seal Research Trust)
- Rebecca Lyall (Project UK / MSC)
- Russell Leaper (IFAW)
- Vicki Castro-Spokes (Defra) – NAB Chair

Clean Catch consortium team:

- Alasdair Davies (Arribada Initiative) Chantal Lyons (Mindfully Wired)
- Emily Roebuck (Cefas)
- Joanna Murray (Cefas)
- Lee Slater (Cefas)
- Milly Oakley (MMOC)
- Emma Kelman (Defra)

Apologies were received from the following NAB members: Andrew Pascoe (Southwest fisherman), Emma Plotnek (FITF), Per Berggren (Newcastle University), Ruth Williams (The Wildlife Trusts). The meeting recording was shared with these members in confidence for a limited period.

Job titles and affiliations for all NAB members can be found on the [Clean Catch website](#).



Meeting proceedings

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1. EEFPO North Sea trial – Emily Roebuck (Cefas) and Dale Rodmell (EEFPO)

Presentation summary

- The trial is now entering the bycatch monitoring phase, following a process of co-design and trust-building.
- Observer trips by the Bycatch Monitoring Programme, with funding from the Scottish Government, recorded physical interactions between warps and fulmars although no seabird bycatch. Most skippers had not previously reported warp collisions which is to be expected, as the events are very difficult to see but can be identified in camera footage. No bycatch of marine mammals was recorded, although there was bycatch of 21 individuals of the common skate complex (blue skate *Dipturus batis* and flapper skate *Dipturus intermedius*).
- Dale Rodmell shared background on the fishery's motivation to partner with Clean Catch and the positive experience of co-designing the trial. He highlighted:
 - The influence of Hooktone's work on Bird Scaring Lines (BSL) in the Scottish hake fishery.
 - The novelty of trialling BSLs on trawlers in Europe.
 - The importance of building confidence and common understanding within the companies and amongst the different owners and skippers.
 - Unexpected findings such as the preference among skippers for REM as a monitoring tool and the bycatch of skates.
 - The hard work of Cefas and other Clean Catch team members.
- Next steps include gathering feedback from triallists on their experiences of the monitoring phase, seeking the NAB's input on the REM sampling design, and planning the mitigation phase.
- The NAB was asked to advise on whether the trial should incorporate a tension monitoring device for BSLs. This has been developed by Imvelo and is being tested in the South African hake trawl fishery, which is required to use BSLs of specific design; the suggestion was raised by NAB member Bernadette Butfield (RSPB) in advance of the meeting. Jean Duggan (RSPB) spoke on her behalf to note that the price per vessel is thought to be relatively low and enables shore-based observers to assess whether BSLs are being deployed effectively, saving time for fishermen.



NAB discussion

Discussion of the tension monitoring device:

- If the device is used only for compliance purposes, this may not be appropriate for the EEFPPO trial which is being done on a voluntary basis and will already provide visual observation in the form of REM; and the term “compliance” should be used with care to avoid sending the wrong message.
 - The Clean Catch team clarified that in the case of the EEFPPO trial, the device would be for checking that BSLs are functioning as intended, rather than for compliance purposes.
 - The NAB Chair noted in her capacity as [xx] that Defra is conducting a large piece of work on understanding how REM would interact with the current regulatory landscape, and what if any changes may be needed, including “switching off” any measures which could be superseded by REM.
- The South African fishery has been using BSLs for years with more experience in the specifications needed for its vessels, whereas BSLs are new for the EEFPPO trial fishery and desired specifications such as angle and height are not yet known. The device may therefore not be appropriate at this stage.
- **Jean Duggan took an action** to find out if and how the device could be used for scientific purposes, as well as for compliance monitoring.

Discussion of skate bycatch:

- Clarity is needed on whether bycaught skates were starry/thorny skates and/or from the common skate complex, although all the species are prohibited and must by law be reported.
- The Shark Trust has co-developed a range of guidance with the fishing industry on identifying skate species and complying with regulations for these, which can be made available to Clean Catch.
- There is a significant issue with under-reporting of bycatch and discards. Creation of new data collection platforms can further result in data not being reported which is important to fisheries management. Clean Catch was urged to encourage fishermen to continue reporting as per legal obligations.
 - The Clean Catch team responded that skippers in its trials are informed that voluntary reporting mechanisms are not a replacement for mandatory reporting and instead ensure the data is available for research purposes. **The team took an action** to regularly remind participating skippers.

Discussion of trial design:

- The Clean Catch team clarified that the preference for self-reporting of sensitive species bycatch (other than seabird bycatch) over REM is because REM resources have been prioritised for comprehensive monitoring of seabird interactions. Collecting comparable REM data on other sensitive species bycatch would require additional cameras in different areas of the vessel to those where seabird interactions occur, and 100% analysis of the additional footage collected would be beyond resource capacity.
- Is there evidence that the fishery is having a real impact on seabirds, and what is being mitigated?
 - *Response:* The first phase of the trial is a three-month monitoring period using REM to look at the frequency and severity of bird bycatch and interactions with the warps. We agreed this was needed because we don't yet have a good understanding of how seabirds are interacting with fishing activity. We need to collect this information and then put it in the context of the whole fishery to understand the 'real impact'.
- Combining REM and observer effort would inform future monitoring efforts as to the efficacy of each method in context.
 - *Response:* The initial, limited observer trips were used for data collection. Additional observer trips will be used to support the initial deployment of the BSLs. This is something the Bycatch Monitoring Programme (BMP) has done in the past as it adds to understanding of the practical implementation of the devices. However, having observers onboard to validate REM and vice versa is not planned for this trial and would be challenging because of budget constraints. We acknowledge there can be differences in results.
- The Clean Catch team clarified that the three-month monitoring period will take place ahead of any mitigation rollout in spring 2026. For REM installation, initial electrical surveys have been completed on all vessels. Installations are due to begin imminently following finalisation of paperwork, and working around vessel availability.
- The Clean Catch team clarified that if data from the monitoring period were to indicate that mitigation measures are not needed, the BSLs would still be tested, given industry drive for this.
- On the consultation to be done with the skippers on mitigation measures, it will be important to bring in wider input early on, e.g. from individuals with experience in similar trials. An expert working group might support this.
- **The Clean Catch team took an action** to take forward the recommendation of creating an expert working group to provide input on the mitigation phase of the trial.



2. Passive Acoustic Reflectors (PARs) (Alasdair Davies, Arribada Initiative)

Presentation summary

- Development of the Passive Acoustic Reflectors (PARs) to date has mainly focused on using these to replace traditional T80 headline floats on gillnets. The scope has now widened to increasing the reflectivity of the net filament, using the acrylic “pearls” developed by the Thünner Institute.
- Priority R&D goals are now to create a tool to enable production of pearl nets for fishermen to use in trials; to optimise the bead material in terms of reflectivity, cost, durability, and recyclability; to trial different configurations of both beads and headline PARs; and controlled tests to verify acoustic performance and practical use for fishermen.

NAB discussion

- How many nets are planned for the first mitigation trials?
 - *Response:* This is still to be determined. We first need to qualify that we can produce the materials and nets; that it works in a commercial fishing environment (e.g. goes through flakers, no biofoul issue, pearls don’t tangle, gillnets go into the buckets as normal); and that the net is more visible acoustically. March 2026 is the target for completing the mechanical work.
- Are you expecting acoustic reflectivity to differ between the two substances?
 - *Response:* Yes. The acrylic sphere is a single element whereas the “grip” pearl is two elements welded together. In February, we will validate the grip pearl at sea with the Thünner Institute to ensure efficacy is not reduced. We also want to determine the optimum configuration for the nets and the minimum number of pearls and/or headline PARs to achieve good reflectivity.
- Production of the net with the pearls already incorporated needs to be considered (e.g. beads on a string that are woven into the net).
 - *Response:* We will do so, in conversation with the industry. We will look for early adopters for manufacturing.
- As seen in Cornwall, statistical power is a challenge. What is the possibility of bringing in passive acoustic monitoring?
 - *Response:* We’ve spoken to Jamie Macauley (Research Fellow at University of St Andrews) who has captured a bycatch event with acoustic monitoring, as part of his work with the EU project CIBBRiNA. The difficulty is that these are very rare events to capture and would involve huge cost and effort to replicate. A workaround is to identify a fishery with higher bycatch and test the tool to see if it has an effect. We’re shadowing CIBBRiNA’s work in the area of acoustic monitoring.

- Could different coloured beads be considered, as a potential mitigation measure for seabirds and seals?
 - *Response:* This could be done. Black will be the next colour for the PAR, as this has been tested with the looming-eyes buoy.
- Are the beads recyclable? At present, nearly all monofilament gillnets in the Southwest are recycled.
 - *Response:* polycarbonate can be recycled but would need to be separated from the nylon of the nets; this is a good question to raise with the industry.
- Are there any data on changes in catch efficiency and selectivity with PARs?
 - *Response:* Most of the literature is from outside the UK, for example in Peru they've added Coca-Cola bottles to increase reflectivity. But there is nothing concrete yet.
- In CIBBRiNA, the 4c PAM system has been used in Iceland recently. We will use it in Denmark and Sweden and are also planning to use it with pearls in the UK. You don't need to record a bycatch event; you can in theory evaluate potential efficacy by looking at the behavioural and physical responses of cetaceans.
 - **NAB members were invited to** recommend any fisheries they have contacts in and which might be interested in providing data for inclusion in the power analysis to inform future PAR trials.

3. Any other business

NAB discussion

- Regarding the suggested expert working group for the EEFP North Sea Trial, it would be much more useful if an NGO rep was built into any local focus group as a constant rather than on an ad-hoc basis.
- The format of today's online meeting was useful.
- **The Clean Catch team took an action** to explore how to facilitate further chat discussion among NAB members after a meeting closes.
- **The Clean Catch team took an action** to hold another online meeting of this format early next year.
- **NAB members were invited to** put forward topics for future NAB meetings.

