

LESSONS FROM COLLABORATING ON ETP* SPECIES BYCATCH

**Bycatch Mitigation Workshop – Sturgeon Week
5 September 2024**

**Chantal Lyons
Bycatch Projects Lead at Mindfully Wired**

*Endangered, Threatened and Protected



PROJECTS IN FOCUS



Clean
Catch



The Clean Catch programme

-  Clean Catch champions collaborative working to help monitor and minimise the bycatch of sensitive marine species in UK fisheries and to exchange knowledge globally.
-  Established in late 2019, with funding and oversight from Defra (UK government ministry for food and the environment)
-  Recently entered a new phase, involving expansion of activities and scope



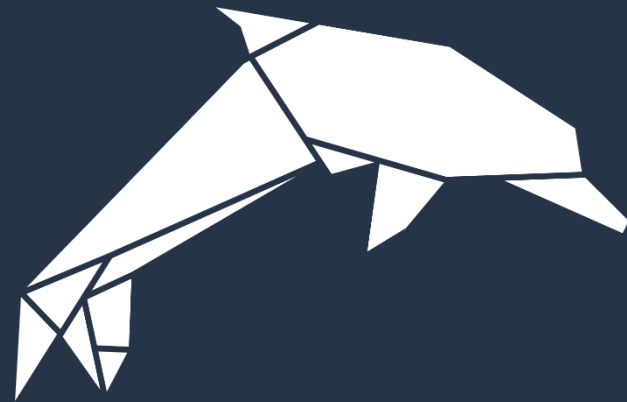
The Clean Catch programme

Sensitive species groups in scope:

Seabirds



Cetaceans



Seals








Sharks



Skates
& rays



Key programme outputs

-  **Self-reporting app for fishers to report sensitive species bycatch (expansion planned)**
-  **Bycatch Mitigation Hub on CCUK website - compendium of trialled mitigation measures (periodically updated)**
-  **Development of prototype Passive Acoustic Reflector (PAR) (first at-sea trials in 2024)**
-  **3-day workshop in 2022 involving fishers, scientists, policymakers, regulators and NGOs on designing modified or alternative gears for bycatch reduction**
-  **Cetacean bycatch mitigation trial (ongoing)**



Bycatch Mitigation Hub

<https://www.cleancatchuk.com/hub/>

HOME

ABOUT ▾

OUR GROUPS ▾

BLOG

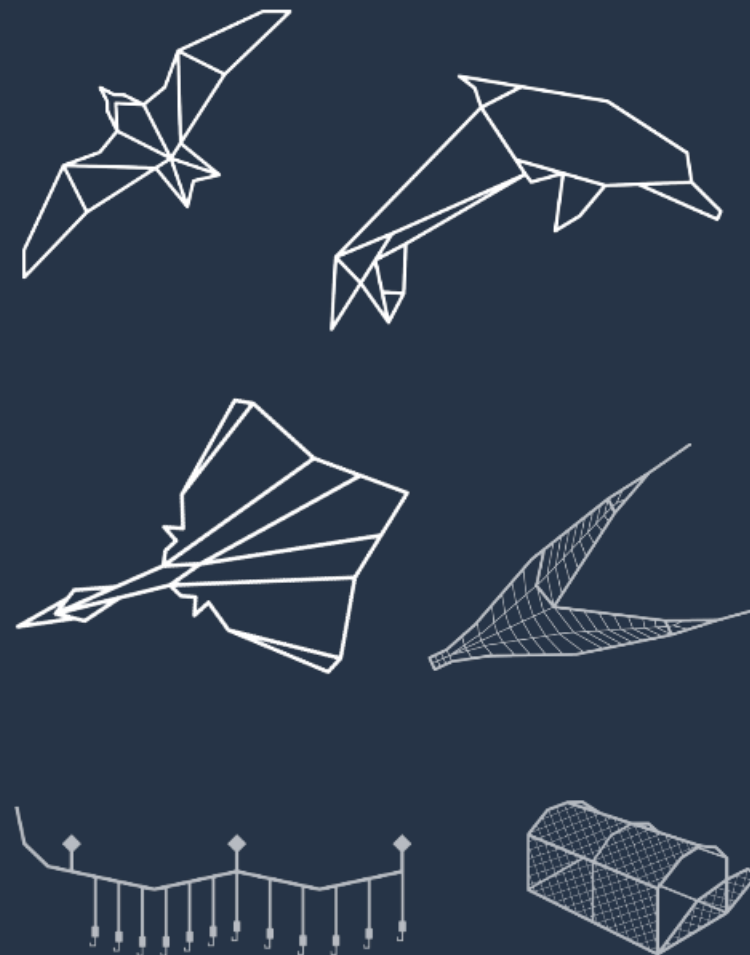
CONTACT

BYCATCH MITIGATION HUB ▾

THE BYCATCH MITIGATION HUB

Welcome to the Hub! Search by gear or wildlife species, to find a list of possible measures to reduce bycatch and entanglement. Not all measures listed are proven to be effective - with many still requiring further study - nor have they all been trialled in UK fisheries. See the Hub as a 'starting point' for further investigation.

[DIVE INTO THE HUB](#)



Lessons from compiling the Hub



Lots of catch-up still to be done for the economic and social side of bycatch mitigation, e.g. financial costs of adaptation, effort needed to adopt new practices, etc.

- Some measures come with unique practical considerations – e.g. fishers encouraged to switch from gillnets to longlines in a Peruvian fishery feared being caught on the hooks



Many trials have used small sample sizes, limiting reliability




Essential to test any measure across a variety of contexts (geography, species, fishery, etc.) – what works well in one fishery may perform poorly (or even cause harm) in another

- LED lights – reduced cormorant bycatch in Peru; but found to attract long-tailed duck in Baltic Sea study (while reducing their bycatch in an Icelandic fishery – though results not statistically significant)



Cetacean bycatch mitigation trial

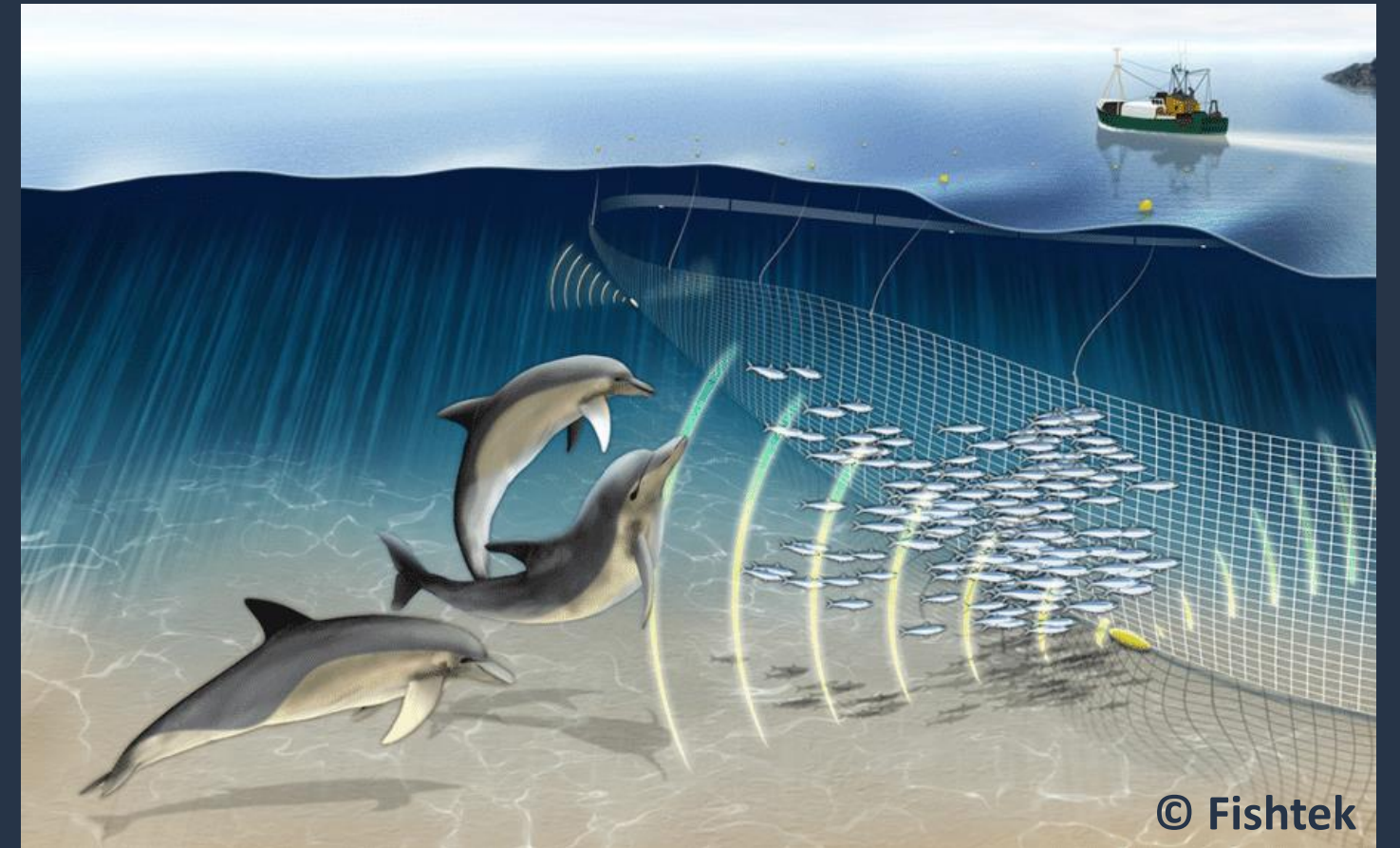
 Delivered and overseen by the Centre for Environment, Fisheries and Aquaculture Science (Cefas) – executive agency reporting to Defra

 Need for the trial identified by static net SSF fishers in Southwest England with support from the Cornwall Wildlife Trust, a local environmental NGO, following incidents of bycatch of Harbour Porpoise (*Phocoena phocoena*) and Common Dolphin (*Delphinus delphis*)



Aims of trial

Investigate if Acoustic Deterrent Devices (AKA pingers), and/or Light Emitting Diodes (LEDs), as well as their combinations, are **practical, robust and effective** at **reducing bycatch** of common dolphin and harbour porpoise in an inshore net fishery, typical of that along the south Cornish coast, **without increasing the bycatch of other sensitive species.**



Trial set-up

- **3 skippers based in Mevagissey, Cornwall**
- **Paired control and treatment nets**
- **Bycatch Reduction Devices to be tested:**
 - **Light Emitting Diodes (LEDs)**
 - **Two types of pinger (Banana and Netguard)**






Running the trial

- Commenced December 2019
- One skipper dropped out, leaving two remaining
- 860 hauls reduced to 112 hauls (56 pairs)
- LEDs found to be impractical
- Bycatch rates appeared to drop for reasons not related to the trial – changing distribution of cetaceans?
- Results inconclusive, with low statistical power
- One pinger model more practical than the other
- **Trial paused in summer 2022 for redesign**



Feedback loop

-  **Decision taken to remove LEDs from the trial based on fisher feedback (kept breaking and leaking, or did not turn off when meant to – used up batteries faster)**
-  **Trial paused in mid-2022 to gather further feedback from fishers and other experts, and improve trial design**
-  **Trial recently relaunched, with changes:**
 - Focus on testing one pinger type (Banana pinger)
 - 9 skippers / vessels
 - Power analysis using baseline bycatch rates



Fisher perspective (Clean Catch)



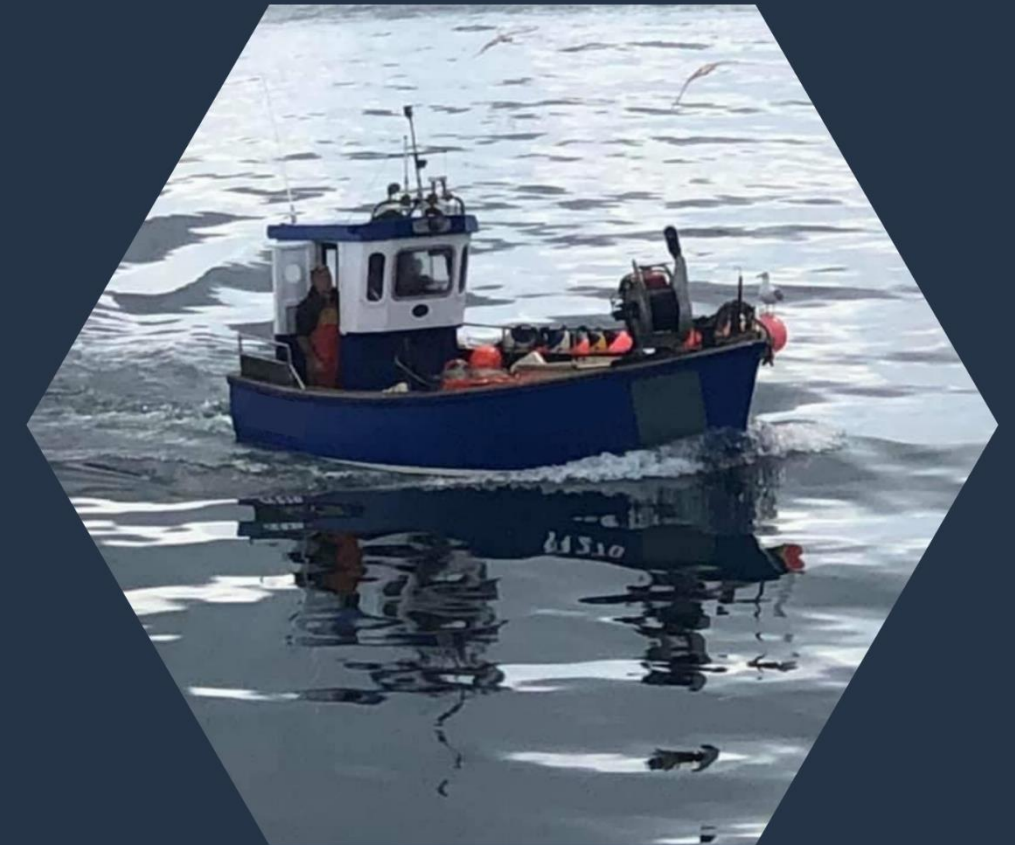
Despite lack (for now) of statistically significant results, the experience of the two skippers involved since 2019 has been that the Banana pingers work

- One skipper says he still sees plenty of dolphin and porpoise activity – disagrees with Cefas scientists that the animals are less abundant in the area now



Social risks of getting involved in bycatch mitigation efforts with eNGOs and government – the skippers have been subject to criticism from some peers in their local fishing community

- Perceived risk to industry of drawing attention to bycatch issues

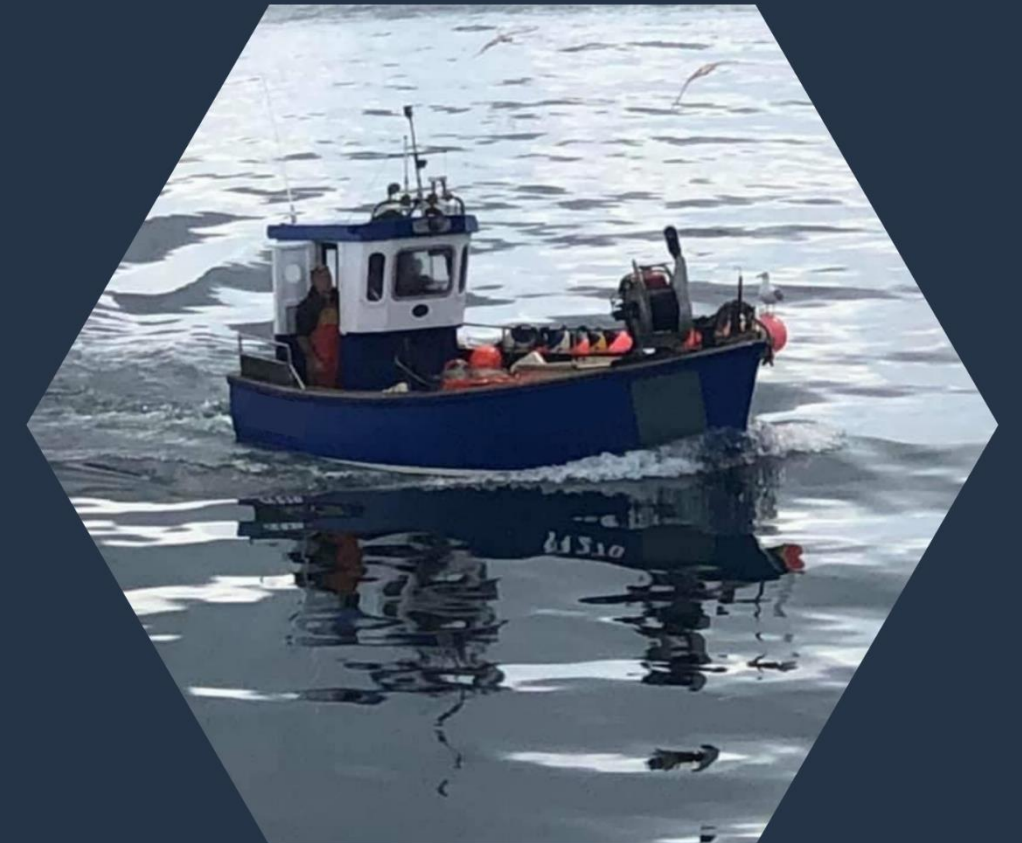


Fisher perspective (Clean Catch)



Keen to hear back about data / results gained with their help

- Statistical analysis, papers etc. can take a long time to be completed or published – use more informal, light-touch communication channels (e.g. short updates over WhatsApp)



Lack of time for long meetings indoors

- Preference expressed for shorter quayside meetings
- Ensure that any meeting schedules accommodate tide times and fishing seasons
- Providing stipends to make up for lost fishing time can increase fisher attendance



Other lessons learned (Clean Catch and beyond)

- **Regulations can be an obstacle to trialling innovative measures**
 - Pingers are not legal for small-scale fishers in the UK to use
 - Cefas has to go through a rigorous licensing process to enable skippers to test such devices
 - Kara Brydson of Fisheries Innovation & Sustainability (developing and testing the Smartrawl): “Fishermen worry about the ‘fish police’”

Other lessons learned (Clean Catch and beyond)

- **Distrust of many environmental NGOs (and regulators)**
 - Local eNGOs can play a critical role in mitigation projects (e.g. Cornwall Wildlife Trust and the Clean Catch trial)
 - However, some (often larger) eNGOs have a poorer reputation among fishing communities, and may be less receptive where their involvement is at the forefront
 - This issue of “negative association” can also apply to more contentious regulations/technologies, e.g. Remote Electronic Monitoring with cameras

Other lessons learned (Clean Catch and beyond)

- **Fisher expertise**

- Fishers – especially small-scale ones – have to be good at coming up with engineering/gear solutions
- Involve them at all stages of developing technical mitigation measures



Other lessons learned: CIBBRiNA

- **Aims to minimise the bycatch of Endangered, Threatened and Protected (ETP) species in the North-East Atlantic, Baltic, and Mediterranean regions, working collaboratively as fishers, authorities, scientists, and other relevant stakeholders to achieve this.**
 - Same species scope as Clean Catch (with added turtle)
 - Cross-border and cross-sectoral collaboration involving stakeholders from 13 European countries
 - EU Life-funded project running 2023–2029





Other lessons learned: CIBBRiNA

- **Fisher involvement placed at the forefront of CIBBRiNA**
 - ‘Safe Working Environment’: “a collaborative space which is proactively fostered by all CIBBRiNA partners and characterised by mutual trust, respect, and understanding of different perspectives.”
 - Communication approach is to emphasise the benefits of bycatch mitigation to fishers (e.g. less likely to lose gear or catch, improved safety from not having to handle and release live animals, avoiding fishing restrictions etc.)
 - Active effort needed from all consortium partners to remain sensitive to and mindful of how messages may be received by fishers and other stakeholders



THANK YOU

Chantal.lyons@mindfullywired.org

