



# 55th Annual Conference

Shellfish Association of Great Britain

#SAGB55

# Ropes to Reefs – Harnessing Restorative Aquaculture to Benefit Ecosystems and Fisheries

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Research unit, University of Plymouth

Llúcia Mascorda-Cabré, Danni Eager, Clare Embling, Tim  
Scott, Jake Hebb, Tom Stamp, **Emma Sheehan**

Shellfish Association of Great Britain 55<sup>th</sup> Annual Conference. 10<sup>th</sup> June 2025.

Image: John Holmyard



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Shellfish  
Association of Great Britain



The  
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Company's  
FISHERIES CHARITABLE TRUST

BIOME



Marine  
Management  
Organisation









# What if we could?....

- Grow food and restore habitat
- Boost biodiversity
- Enhance local fisheries



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# The challenge -

food demand,  
marine  
degradation,  
climate change,  
spatial pressure...



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# Project Overview

- June 2023 – March 2025
- DEFRA FISP
- Previous 10 years of data, including baseline study



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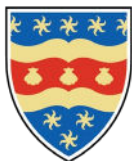
Danni Bridger: 2015 - 2019



Llúcia Mascorda-Cabré:  
2019 - 2023



Jake Liam Hebb: 2023 - 2027

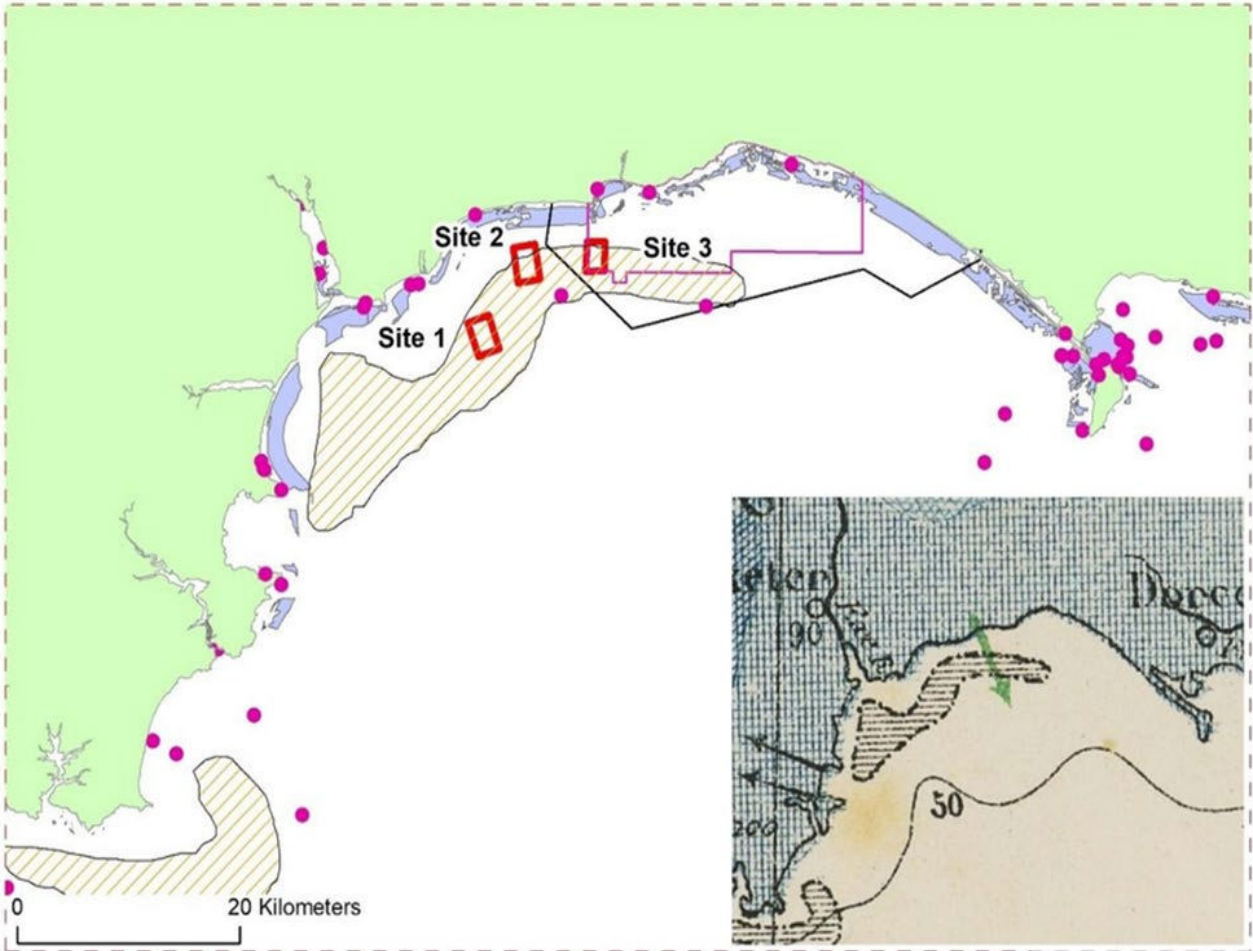


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- |   |   |
|---|---|
| <span style="border: 2px solid red; display: inline-block; width: 20px; height: 10px;"></span> Offshore shellfish Ltd sites   | <span style="background-color: yellow; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> Historical rich shell bed                |
| <span style="border: 2px solid magenta; display: inline-block; width: 20px; height: 10px;"></span> Statutory Instrument       | <span style="color: magenta;">●</span> Historical oyster reef and fisheries   |
| <span style="border: 2px solid black; display: inline-block; width: 20px; height: 10px;"></span> Special Area of Conservation | <span style="background-color: lightblue; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> Potential oyster bed restoration area |

Stamp et al. 2024. Science of The Total Environment.

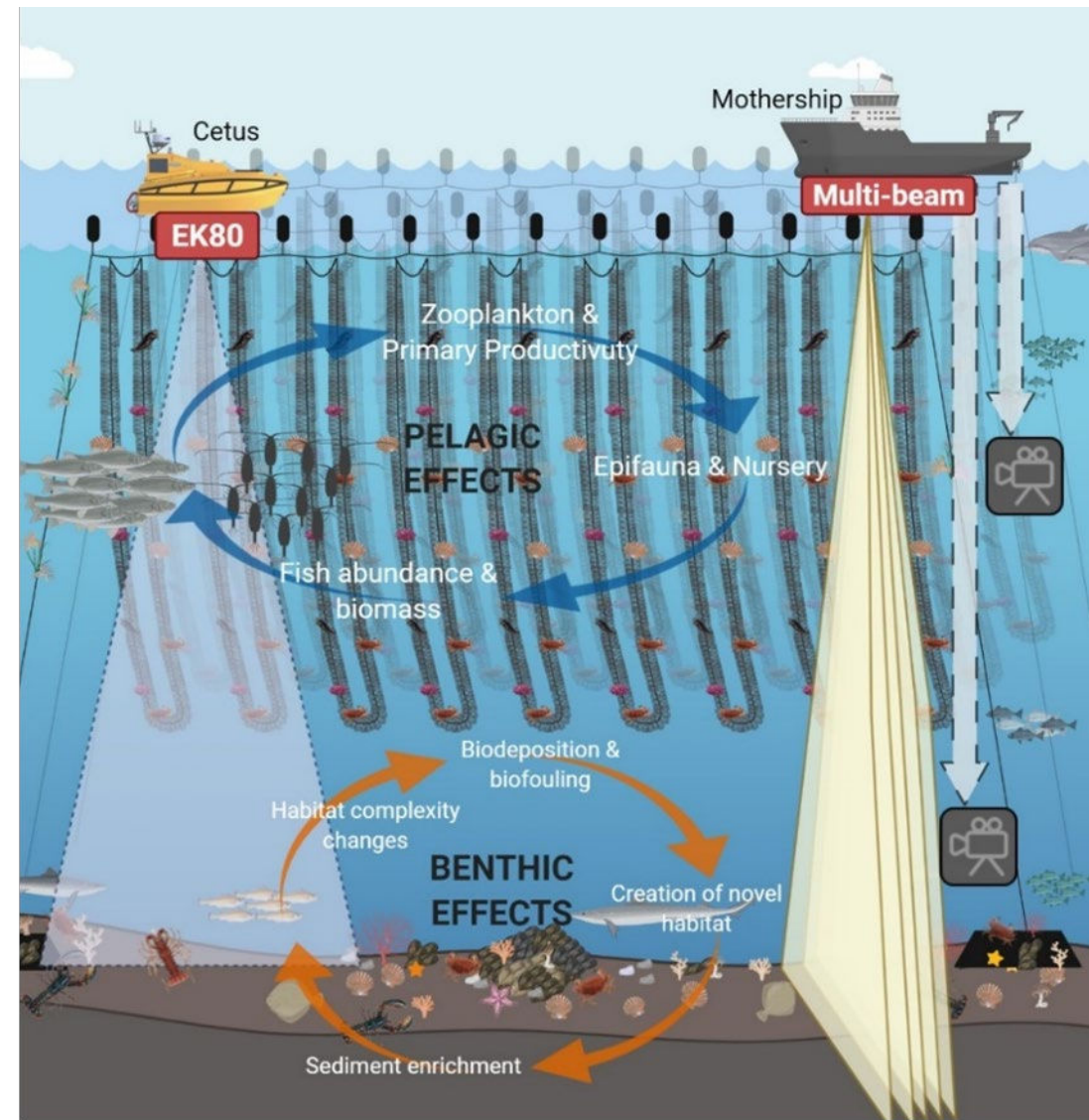
# Advancing Our Knowledge

- Building on a decade of long-term monitoring to explore new ecological and fisheries outcomes

- Essential Fish Habitat (EFH)
- Interaction with Lyme Bay MPA - **Connectivity**
- Ecosystem services
- **Spillover** effect



Images: John Holmyard



Llúcia Mascorda-Cabré



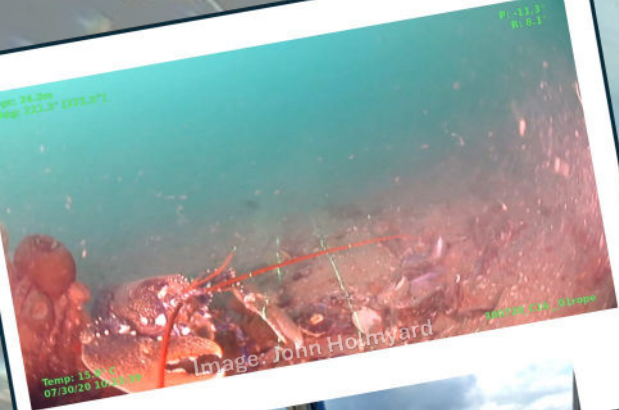
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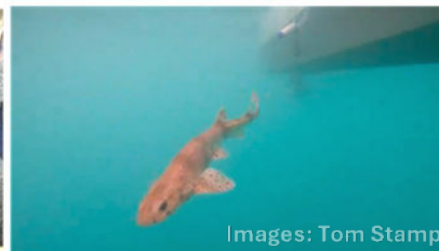


How we did it...





Underwater video...



Images: Tom Stamp

Tracking animals...



Images: Tom Stamp

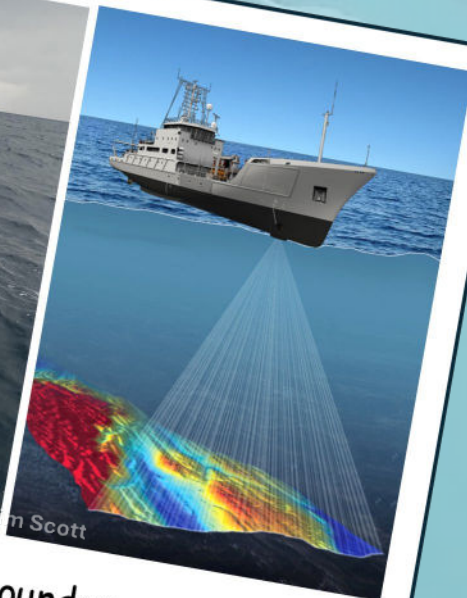
Acoustic telemetry



EK80 - Fish Biomass



Images: Tim Scott



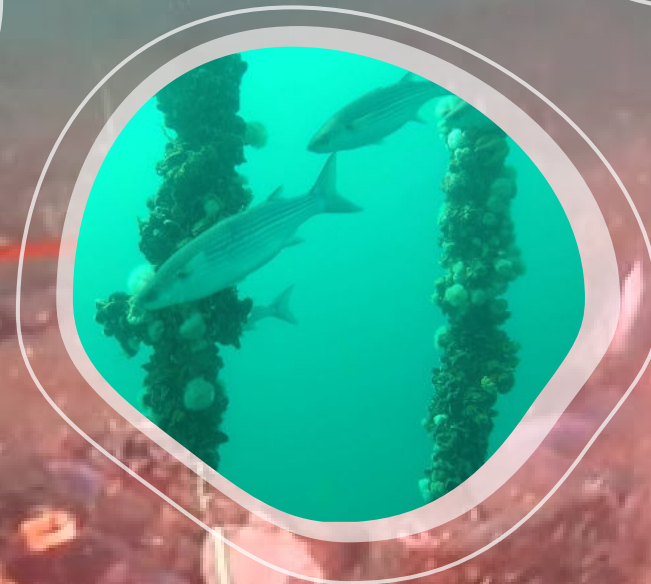
Multibeam Echosounder



Dpt: 24.0m  
Hdg: 221.3° [221.5°]

P: -11.3°  
R: 8.1°

# What we found...



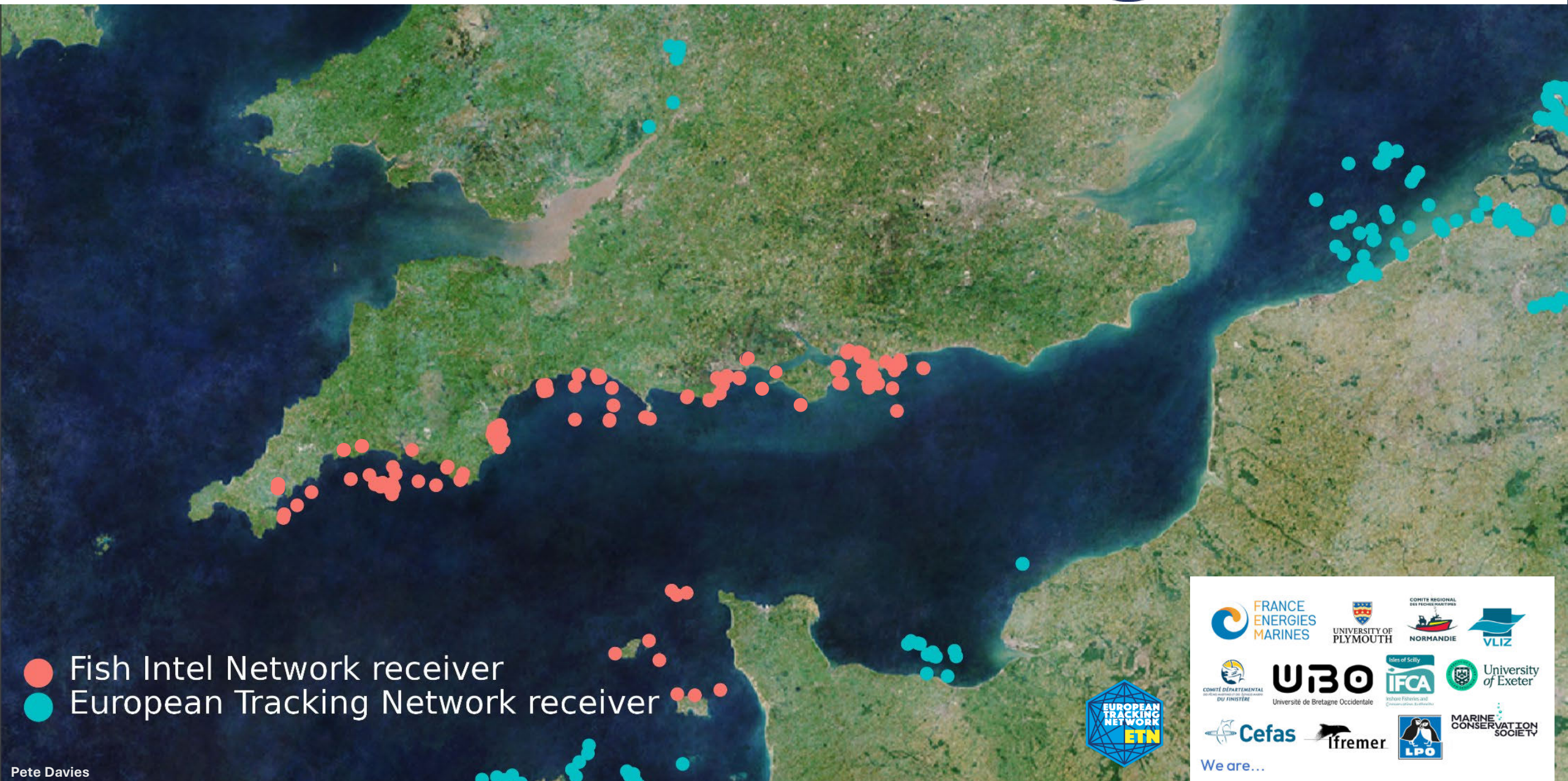
Temp: 15.8° C  
07/30/20 10:23:39

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● Fish Intel Network receiver  
● European Tracking Network receiver

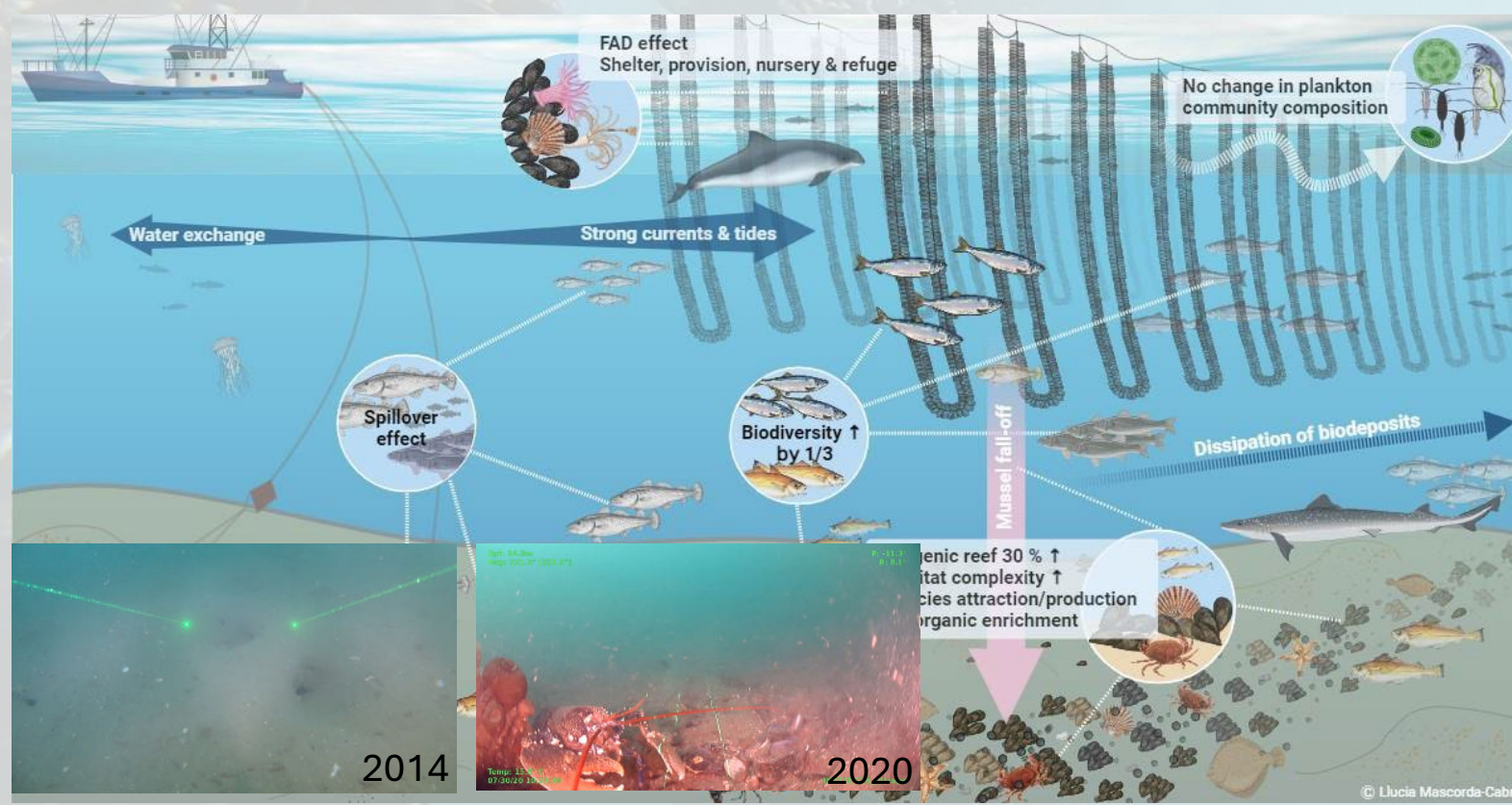


We are...



# Why it matters

-  1. Ecosystem security – **habitat creation** & vertical complexity on previously degraded seabed.
-  2. **Fisheries resilience** – shelter for juveniles could translate into increased future catches.
-  3. Climate-smart protein – low-carbon seafood that **actively supports nature**.



- Biodiversity enhancement
- Essential Fish habitat - nursery space for juvenile fish, feeding grounds etc.
- Evidence of connectivity and spillover





*"...The project will provide long term value to planning of sustainable offshore aquaculture and forms a solid base on which to build future research."*

John Holmyard,  
Offshore Shellfish Ltd



*"The project represents an important contribution to MMO's evidence base across all our departments, and we have begun discussions with colleagues on uses of the evidence."*

Miranda Willis,  
Marine Management Organisation



*"At a time when we are trying hard to demonstrate...the benefits of the sector and promote an expansion of this eco-friendly industry, the Ropes to Reefs project is both relevant and critically important."*

David Jarrad, Shellfish Association of  
Great Britain



*"To see the transformation in the site from boring featureless and barren mud to a vibrant and thriving community has been fascinating. The chance to eat some of the farm's product has also been a bonus!"*

Rob King, Blue Turtle Dive Charters



# Sharing the story: 2023 - 2025



## Talks & Panels

25 Presentations incl. Project Webinar Panel



## Media Reach

3 national press pieces • BBC Radio Devon segment



## Peer-review & reports

2 journal articles • 1 Policy Brief



## Digital Engagement

Project video 4 k views • social impressions 55 k



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# Your Part in the Blue Food Revolution

## Who

**Funders & Ministers**

**Regulators & Managers**

**Shellfish & Aquaculture Industry**

**Scientists**

## What is needed

Ring-fenced support for 'nature inclusive aquaculture' R&D and monitoring programmes

Fast-track licensing for farms that adopt biodiversity-positive designs; integrate them into MPA objectives

Pilot schemes, share data, champion success stories

Keep testing, keep tweaking, keep publishing open data

## Why it matters

Turns good-news pilots into national standards

Rewards best practice, lifts the whole sector

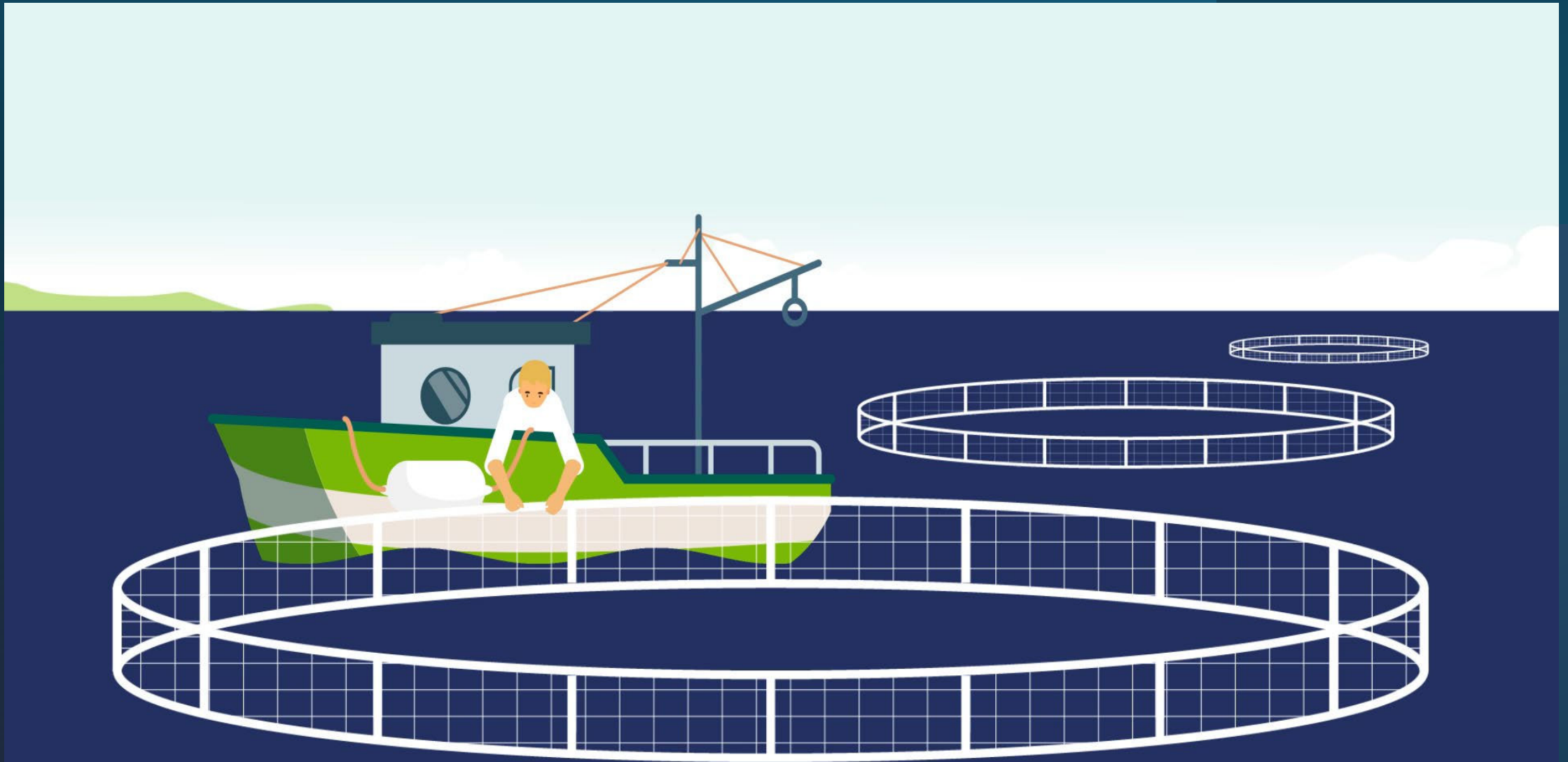
Builds market trust, opens premium markets

Keeps the evidence base solid and evolving to support the growth of restorative offshore aquaculture



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Aquaculture, the practice of farming in the ocean





Watch: Webinar




Read: Policy Brief

# Thank you – connect with us



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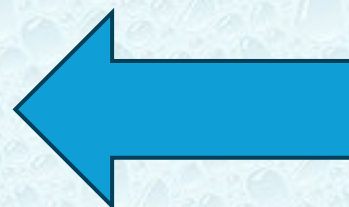


Paper: Stamp et  
al. 2024



Paper: Mascorda-  
Cabré et al. 2024

*Explore more*



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