



Connecting Conwy: From Oyster Reefs to Seascapes

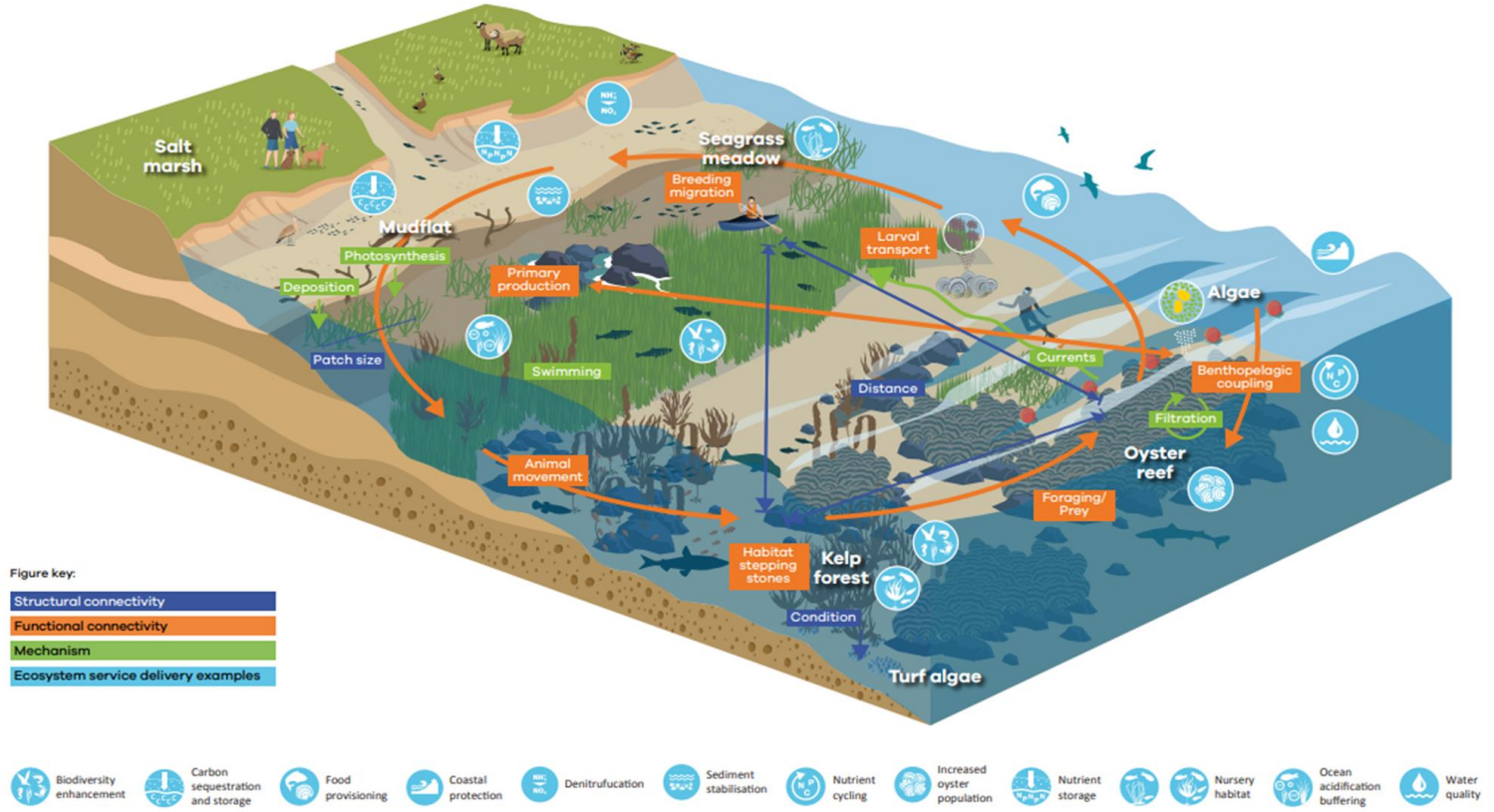
Maria Hayden-Hughes, Rhianna Parry, Celine Gamble

What is a seascape? Beth yw morwedd?

Definition of the coastal seascape:

The physical mosaic of interacting habitats occupying the coastal marine environment across time and space.

Preston, J., Debney, A., Gamble, C. et al. Seascape connectivity: evidence, knowledge gaps and implications for temperate coastal ecosystem restoration practice and policy. npj Ocean Sustain 4, 33 (2025).



Introduction to The Connecting Conwy Project

Cyflwyniad i Brosiect Cysylltu Conwy

The project aim is to lay the foundations for future long-term recovery and health of coastal and marine habitats in the Menai Strait and Conwy Bay, by bringing together scientific evidence, local knowledge, and partnership working.

Goal 1: Further our understanding of marine habitat presence, condition and distribution of marine habitats across the Menai Strait and Conwy Bay, including seagrass, saltmarsh, blue mussel and native oysters – and identify the main barriers to their recovery.

Goal 2: Use The Wild Oysters: Conwy Bay native oyster restoration site as a case study to monitor outcomes, test methods, and inform future restoration efforts

Goal 3: Engage and involve a wide range of people in understanding, valuing and shaping the recovery of local marine habitats.



Cronfa
Trefnadaeth
Heritage
Fund



Mewn Partneriaeth â
Llywodraeth Cymru
In Partnership with
Welsh Government

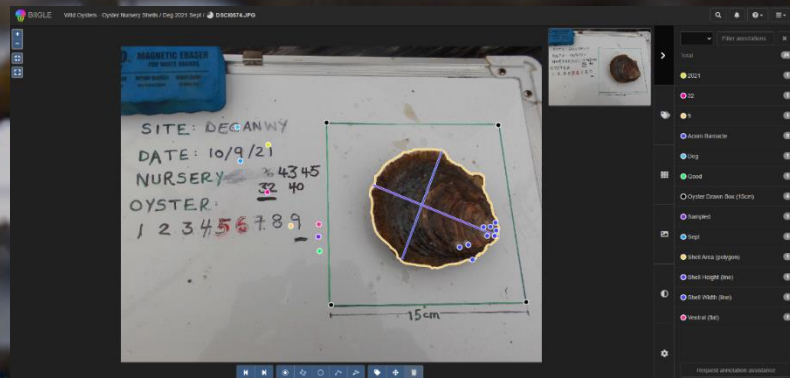
Restoring Wild Oysters to Conwy Bay

Adfer Wystrys Gwylt ym Mae Conwy



Mewn Partneriaeth â
Llywodraeth Cymru
In Partnership with
Welsh Government









ADVANCING OYSTER RESTORATION IN CONWY BAY: LESSONS FROM COMMUNITY ENGAGEMENT, CITIZEN SCIENCE AND EDUCATION PROGRAMME

NNF2: 2023-2025

Rhianna Parry¹, Maria Hayden-Hughes¹, Sophie Ward¹, Celine Gamble²
¹Centre of Applied Marine Sciences (CAMS), Bangor University, Menai Bridge, Anglesey, LL59 5AB
²Zoological Society of London, Regents Park, London, NW1 4RY
Email: rhianna.parry@bangor.ac.uk

PROJECT OVERVIEW:

The Wild Oysters Project Conwy Bay aims to improve the health of coastal waters by restoring native oyster habitat at Conwy Bay in North Wales, while engaging a wider range of people with the historical and natural heritage of oysters in the area. The project is a collaboration between the Zoological Society of London (ZSL) and Bangor University, funded by the Nature Networks Programme, delivered by The National Lottery Heritage Fund in partnership with the Welsh Government.

EDUCATION & ENGAGEMENT PROGRAMME

Aim: To increase the knowledge and awareness of native oysters and the ecosystem services they provide, and for people to feel a sense of stewardship towards the marine environment.

Formal education programme: We have created a free education programme for pupils aged 8-11 (KS2), 11-14 (KS3) and HE, aiming to inspire the next generation of marine stewards, including:

- Lesson plans, workshop PowerPoint presentations, activity worksheets, site visits at marina sites (Oyster Safe!)
- Linked to the Welsh curriculum

Education programme: Learning objectives

- Students to have a greater knowledge and awareness of native oysters and the ecosystem services they provide.
- Students to have a greater knowledge and understanding of marine habitats in the UK and the marine environment resulting in increased ocean literacy.
- Students to have increased awareness and understanding of their local Wild Oysters project.
- Students are inspired to care for the marine environment and become marine stewards.



CITIZEN SCIENCE PROGRAMME:

We have a dedicated team of volunteers who assist with oyster nursery surveys one day a month (usually 4 to 5 hours per day). These surveys included:

- Biodiversity Net Surveys: Recording mobile marine animals.
- Photo Surveys: Recording sessile animals on oysters.
- Oyster Health and Reproduction Surveys: non-destructive inspections.



To access the 2023-25 Engagement, Technical and Evaluation Reports for #NNF2, scan the QR code and navigate to Project Outputs:



LESSONS LEARNED AND NEXT STEPS:

- **Support School Travel for Site Visits:** Allotting a budget for travel expenses helped ensure that all schools could participate, regardless of financial constraints.
- **Tailor Materials for Diverse Student Groups:** Customising educational materials to suit different educational levels and local contexts enhanced learning outcomes.
- **Overcome Learning Barriers:** We considered language and specific educational needs when developing materials and lesson plans to address potential barriers to learning (e.g. Welsh language or bilingual content).

INCLUSIVITY STRATEGY:

Our research focused on creating accessible, inclusive opportunities for all members of the community, with particular focus to women and girls in STEM (Science, Technology, Engineering, Arts, and Mathematics) and underserved ethnic minority groups.

Key aspects of this strategy included:

- **Bilingual Resources:** Educational materials were provided in both Welsh and English.
- **Reducing Barriers to Participation:** We supported transport and accessibility to ensure diverse participation.
- **Interactive Tech:** Virtual reality headsets showcased Wales' marine biodiversity and highlighted the importance of healthy coastal ecosystems in any location.
- **Co-Designed Events:** Tailored outreach through EDI-focused speakers at the 'Accelerate Action: Careers in Marine Science' evening talk for women and girls in science, oyster day building workshops with North Wales Africa Society, and hands-on oyster monitoring with PCB: Babi! refugee group.



LOCAL COMMUNITY ENGAGEMENT:

To promote long-term stewardship of the Wild Oysters restoration sites at Conwy Bay, we engaged with local communities through:

- Monthly volunteering sessions at oyster nursery marina sites.
- Online media engagement (website & local media).
- Participation in local maritime food festivals and events.
- Beach cleans in collaboration with local organisations.
- Hosting celebration events in 'Cwyl Wjestykyl' (Ystod/Autumn Oyster Feast).



Lessons learnt and next steps:

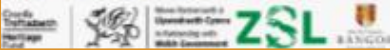
- Establishing a local working group with key representatives, meeting every quarter ensures community involvement in decision-making and to address any queries.
- Using a closed Facebook and WhatsApp group for volunteer communication is effective widely used, and encourages engagement. Online mechanisms like Volunteer@group.org reduce administrative tasks.

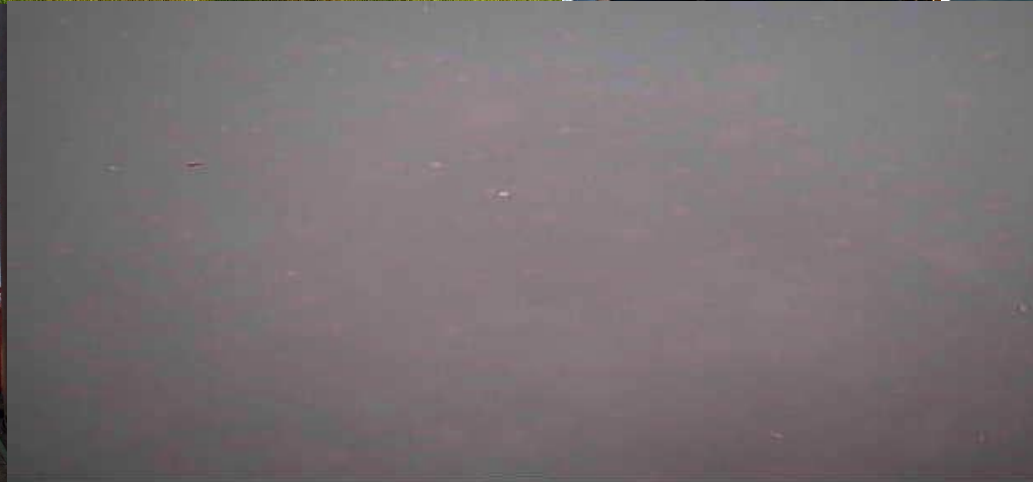
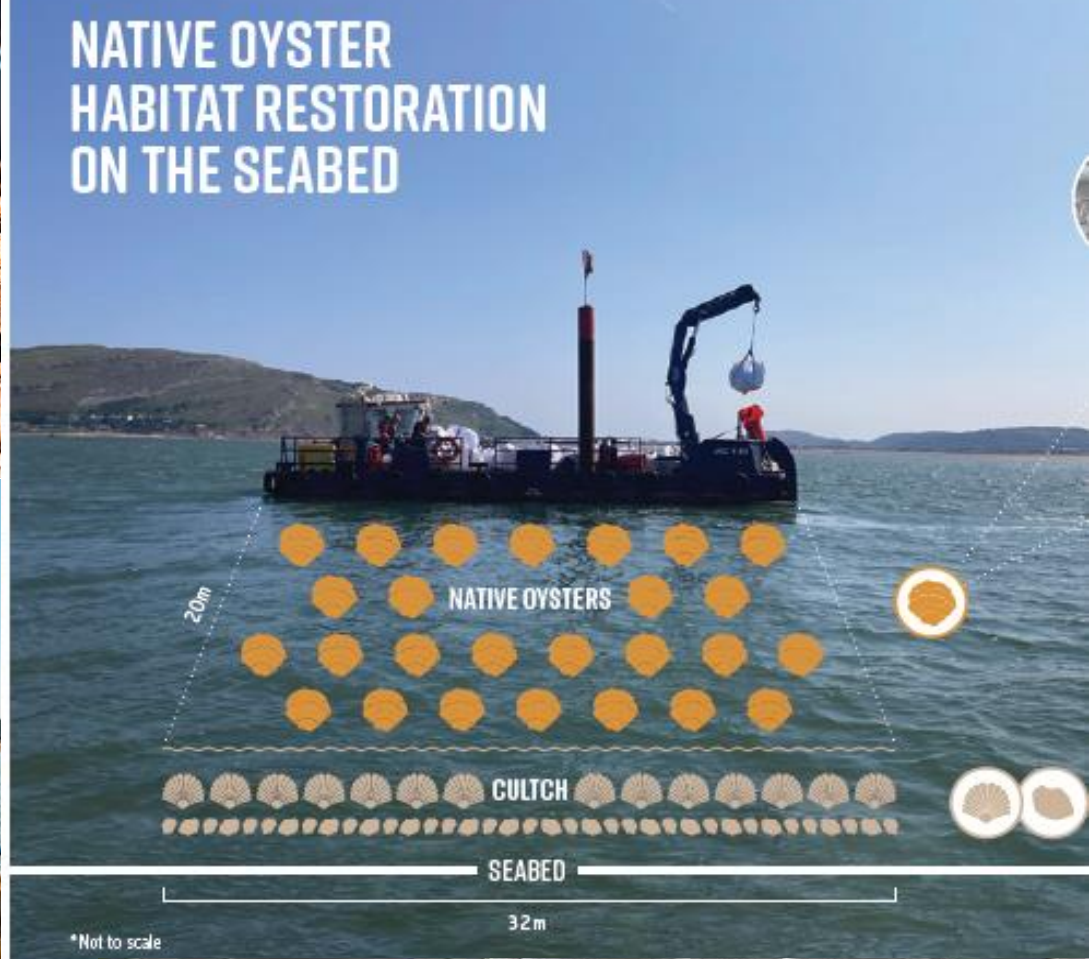
ENGAGEMENT IMPACT:

- 3,090 students were reached via our formal education programme through in-person and online sessions.
- Trained over 300 new and 180 returning volunteers = 355 total, contributing 1,480+ hours.
- Meaningful engagement with 11,200 members of the general public to date through organising or collaborating with community events.

Current work with NNF2 Creating Conwy in terms of engagement:

- Mapping habitats & surveys across Conwy Bay and the Menai Strait with partners to guide potential conservation recovery in the area.
- Advancing marine spatial restoration through ongoing monitoring in Conwy Bay and other survival trials in the Menai Strait.
- Engaging communities & businesses through citizen science, events, and bilingual education to inspire local stewardship and continue project relations.







*Restoring Wild Oysters to
Conwy Bay website and
reports*



Thanks for listening Diolch am wrando

Maria Hayden-Hughes, Rhianna Parry, Celine Gamble

www.bangor.ac.uk/the-wild-oysters-conwy-bay/nnf3-connecting-conwy



Mewn Partneriaeth â
Llywodraeth Cymru
In Partnership with
Welsh Government