Towards a recommendation on the "Potentials and constraints in the implementation of restorative aquaculture"

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Potential (1)

AAC vision for 2040, 2025:
Some aquaculture systems contribute to biodiversity in wetlands and aquatic habitats and provide ecosystem services in addition to healthy aquatic food products.

FAO, Guidelines for sustainable aquaculture, 2025:
Promote aquaculture systems that provide habitat and refuge for both terrestrial and aquatic biodiversity, where appropriate.

Potential (2)

The AAC & FAO visions are applicable to shellfish aquaculture, since:
- Shellfish are the cornerstone of key (marine) habitats.
- Particularly: epibenthic species, such as mussels and oysters

Synergies shellfish aquaculture-nature:
- Enhancing larval concentration in the water, potentially supporting habitat development
- Fulfilling ecosystem functions (water filtration, nutrient extraction), or resembling these (biodiversity enhancement)

NB: While overall environmental impacts are relatively low

Opportunity (1): Nature Restoration Regulation

- EU Nature Restoration Regulation (NRR), Article 5 - Restoration of marine ecosystems:

  Member States shall put in place the restoration measures that are necessary to improve to good condition areas of habitat types listed in Annex II which are not in good condition.

- Annex II includes Shellfish beds ('Group 3') as relevant habitats

Opportunity (2): NRR implementation

- National governments must submit draft implementation plans to EC by September 2026, with habitat restoration as priority over species restoration

- Observations from international Dublin (Nov 2025) and Bologna (Dec 2025) meetings: national governments are struggling with marine implementation plans and looking for guidance/support

➢Expectation: Need for guidance/support to identify effective NRR-measures in the marine environment will continue the coming years

➢Hypothesis: Restorative shellfish aquaculture has potential as NRR-habitat restoration measure

Restoration examples: mussels

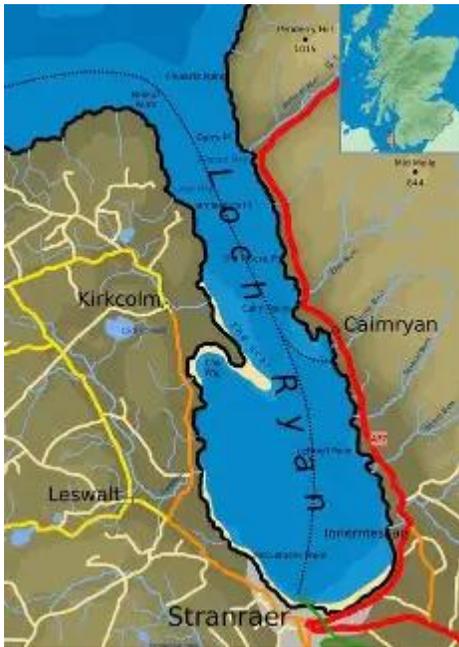## Lyme Bay (UK): ropes to reefs
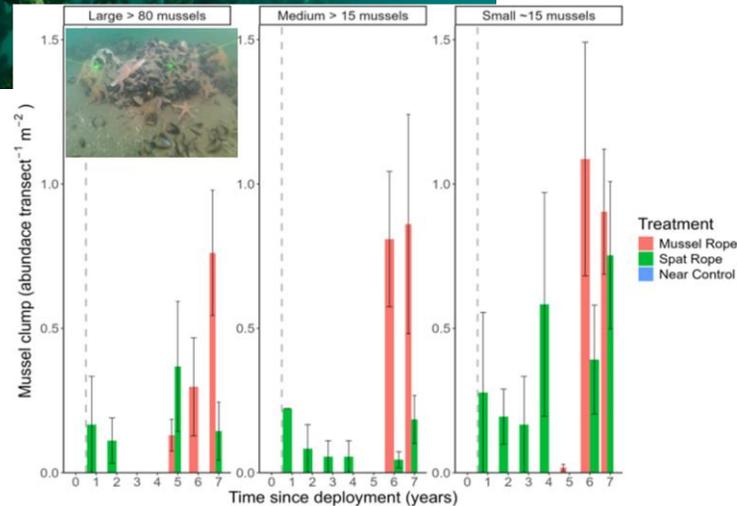
Wadden Sea (MPA-NL): selective seed fishing + catchment in water column
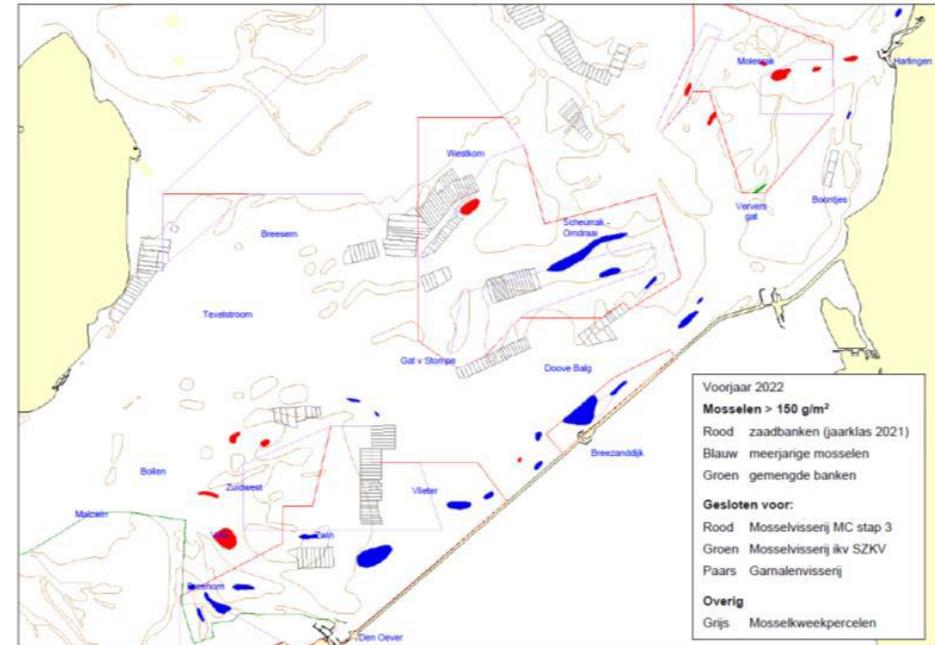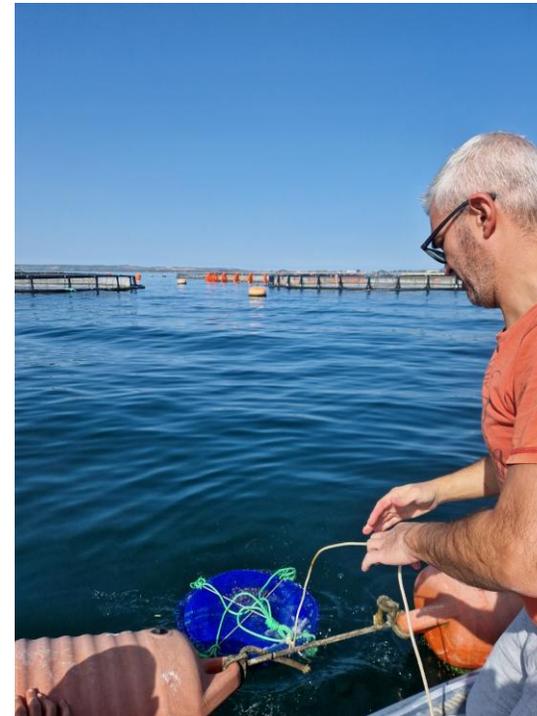

Other examples: Ireland

Restoration examples: flat oysters

Loch Ryan (Sc): 30 years limited harvesting. Result: 1M → 20 M oysters + reef development

NORA Lagune (MPA-It): cultivation + reef development since 2021

Develop Recommendation to EC

Undertake process to define 'restorative aquaculture' as an activity which supports implementation of NRR:

1. Define NRR-relevant indicators to determine effects by aquaculture

2. Define minimum score on indicators to accept aquaculture as NRR-implementation measure

3. Define adequate monitoring to measure 1 and 2

4. Describe aquaculture practices (dependent on various environments) leading to minimum score under 2

5. Develop procedure for these aquaculture practices to be eligible for NRR–implementation in MPAs and related financial support

Scope: blue mussel (*Mytilus edulis*) and flat oyster (*Ostrea edulis*) aquaculture