Multi-use platforms at sea (MUPS): An innovative way to manage offshore space and reduce coastal anthropic pressure

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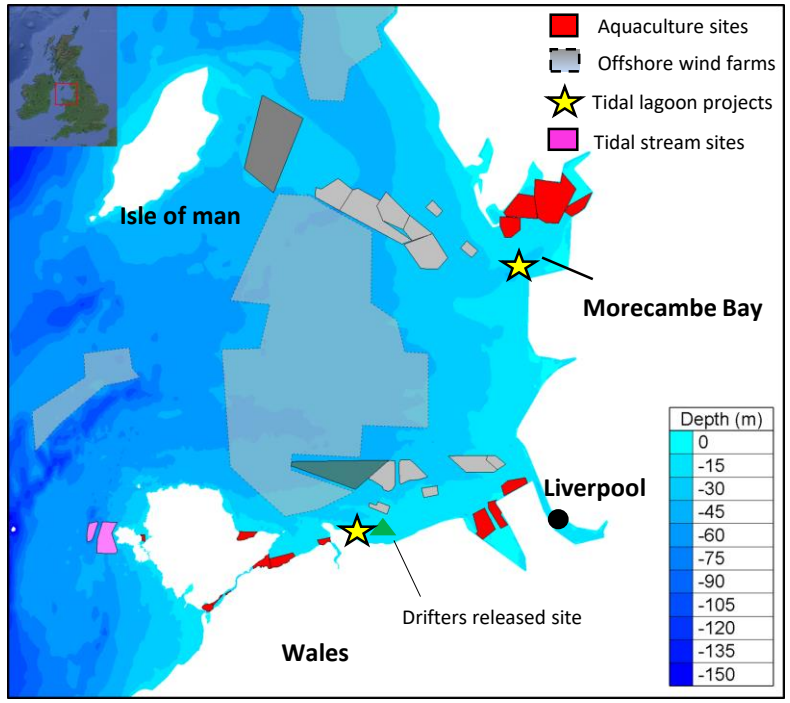
OBJECTIVES

- Define larvae pathways
- Using ORE structures to collect larvae
- Impact of ORE on larval recruitment
- Improve hydrodynamics and particle tracking models



METHODS

Release drifters

- Different type of drifters
- Different sites (onshore/offshore)
- Different period (summer/winter)

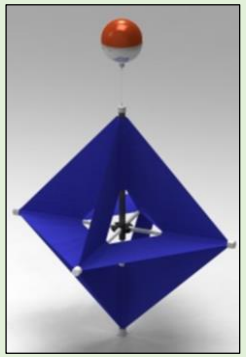
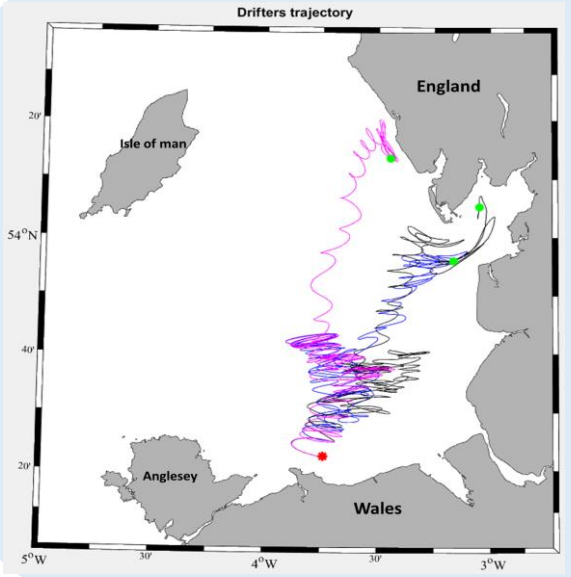


Figure 2: Microstar drifter

Output from drifters

- Position every 30 min
- Impact of wind on trajectory
- Impact of tide on trajectory
- Distance made by drifters
- Relative distance between drifters
- Sea surface temperature

RESULTS



Legend

- Starting position
- Ending position
- Drifter 1
- Drifter 2
- Drifter 3

Table 1: Distance made by drifters.

Drifter ID	Micro 1	Micro 2	Micro3
Distance (km)	76.1	91.3	96.2

APPLICATIONS

ORE applications:

- Improvement of accuracy of hydrodynamic models
- Impact of ORE on sea surface flows

MUPS applications:

- Define best ORE sites to develop offshore aquaculture
- Information on best ORE sites to catch larvae

Further applications:

- Ecology: Spread of invasive species, connectivity among populations
- Management: Define sites for Marine protected areas based on particles dispersal