



# Can wind energy systems co-exist with aquaculture systems?

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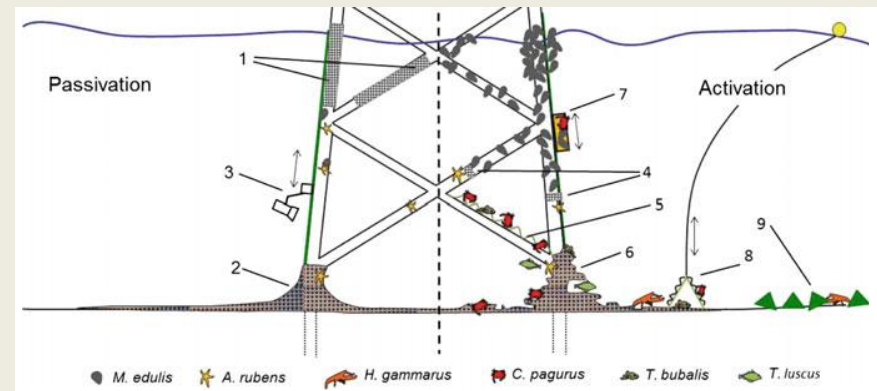
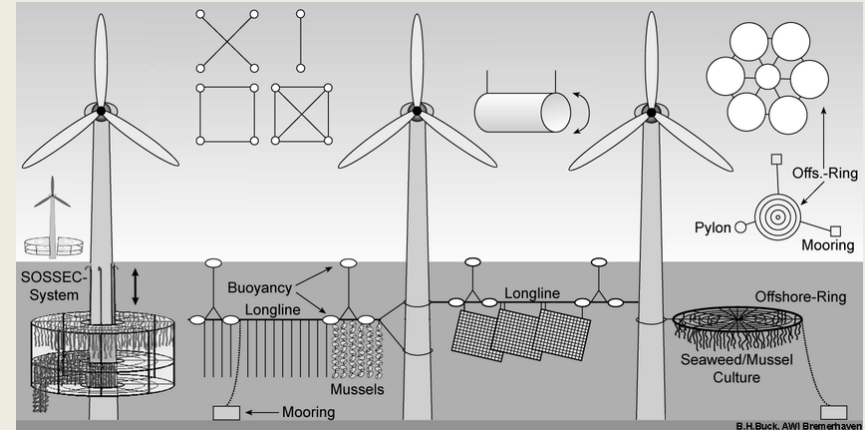
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## Advantages:

- Offset lost fishing opportunities
- Effective use of “dead space” in between turbines
- No contradicting uses (e.g. trawling) that can affect seabed infrastructure
- Share resources

## Ideas from Europe

- Harvesting mussels from wind farm structures
- Wind farm foundations as artificial reefs
- Integration of longlines or fish cages with the wind turbine structures or space in between.



Buck, et al. 2017 “The German Case Study: Pioneer Projects of Aquaculture-Wind Farm Multi-Uses”, DOI 10.1007/978-3-319-51159-7\_11



# Case study: Shell fish with North Hoyle wind farm



- Challenges for the mussel producers:
  - Adapting operational practice for local conditions
  - Developing a sufficient bathymetric understanding
- Concerns for wind farm operators:
  - unfamiliar set of processes
  - benefit to the on-going operation,
  - demands of operating in challenging off-shore conditions
  - Health and safety issues
  - Scheduling issues
- Codes of practice:
  - Detailed descriptions of the mussel cultivation trial proposal
  - Method statement
  - Operational plan
  - Marine emergency response plan
  - Risk assessment
  - Vessel Insurance
- Permission from Welsh Government

EFF Project - Shellfish Aquaculture in Welsh Offshore Wind farms – Co-location Potential,  
Shellfish Association of Great Britain Dec 2012