

Trialling eDNA data collection for small cetaceans affected by marine renewable energy (MRE) developments in Welsh waters

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Rationale

Prime locations for MRE developments often coincide with important feeding grounds for small cetacean species in Wales. Due to their high conservational priority, this repeatedly causes issues when projects are applying for consenting.

Currently, the non-invasive strategies used to monitor cetaceans generally lack the ability to give accurate estimations of abundance, distribution, population structure and health. This project therefore aims to trial the feasibility of extracting DNA from blowhole and seawater samples.

Results

- Blowhole sampling method as a non-invasive strategy has been trialled with some success. Scientific paper accepted for publishing with suggested improvements to the methods.
- Water sampling trials have begun with the initial stages of genetic analysis being carried out at labs in Swansea University.
- Fieldwork to test the improved blowhole sampling technique to commence.
- Design and construction of a drifter is underway. A drifter would be launched to maintain position in a mass of water after cetaceans have passed to track the currents.



Outcomes

If successful, non-invasive techniques using eDNA could be used to analyse the genetic composition of cetacean populations in Wales. Subsequently, cetacean distribution, identity and health could be analysed and such information can be made available to MRE developers and governing bodies.



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