Using a wave energy platform for opportunistic environmental monitoring

Bettina Walter, Chiara Bertelli, Hanna Nuuttila, Chris Lowe, Angharad James
SEACAMS2, College of Science, Swansea University, Singleton Campus, Swansea, SA2 8PP, UK

Rationale

Marine Power Systems (MPS) is looking to deploy a quarter scale WaveSub device in the FaBTest area in Falmouth, Cornwall. With SEACAMS2, MPS want to monitor and survey the area to describe abiotic and biotic parameters as well as the effect of a WaveSub on the marine environments and its species, particularly fish, marine mammals and seabirds.

Methods

• SEACAMS2 will examine cetacean presence using static acoustic monitoring devices (C-PODs) in and outside the test area.
• C-PODs (Chelonia Ltd) record properties of cetacean vocalisations including time and duration of click trains which are distinguishable by their frequency and wavelength characteristics.

Results

• Three C-PODs were deployed around the WaveSub device.
• Porpoise and dolphin clicks detected in and outside of the test area.
• Further analysis to be carried out on the influencers of cetacean presence.

Outcomes

The project outputs will provide guidance for mitigation strategies for future developments on the Welsh coast.