



Preliminary analysis of underwater noise from a wave energy converter in King George Sound, Western Australia

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ABSTRACT

An M4 wave energy converter (WEC) prototype was deployed by the University of Western Australia's Oceans Institute and Marine Energy Research Australia in King George Sound, off the coast of Albany, Western Australia in summer 2024-2025. The 24m long floating, hinged WEC was deployed in 13m of water, with a chain catenary mooring. To understand the contribution of the wave energy device to the underwater soundscape, underwater sound was recorded before and during a trial deployment of the M4 by a Sound Trap ST200 deployed on the seafloor at a range of 150m. The ST200 was deployed six times over the period February to April 2025. For each deployment the ST200 was set to sample sound at 288 kHz with a duty cycle of 50% (30 min on/30 min off). Preliminary analysis of the underwater sound recorded indicates noise made by the M4 was found to be mainly between 200 and 1000 Hz. Future work will aim to quantify the source level of the M4.