

SESSION: From Physics to Top Predators at islands and seamounts in the Southern Ocean

MARS Themes:

Ecosystems, biodiversity and biodiscovery

Title:

Acoustic occurrence and behavior of Baleen Whales during winter around Prince Edward Islands

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Abstract:

Acoustic occurrences and diel call patterns of Baleen Whales around Prince Edward Islands (PEI) are described using acoustic recordings. Acoustic data were recorded from a hydrophone deployed on an oceanographic mooring located between the subantarctic Marion and Prince Edward Islands in the Southern Ocean. Acoustic occurrences (i.e. presences) of baleen whales were identified through visual and audio analyses of spectrograms of recorded data. Environmental parameters including sea surface temperature (SST), which is possibly associated with acoustic occurrences, was investigated for correlation. During the study period of winter 2022, eight different types of baleen whale calls were detected, with Fin whale calls having the highest occurrence. Correlations performed between the various calls' acoustic occurrences and SST, deemed Madagascar Pygmy Whale calls, Humpback Whale songs, Sei Whale upsweep calls and Antarctic Blue Whale Z-calls to be statistically significant. This study improves our knowledge about the diel call patterns and acoustic occurrence of baleen whale species around PEI. Such knowledge could be essential for the conservation and management of the species.

Format:

Oral presentation

Keywords:

Baleen whales ; Bioacoustics ; Prince Edward Islands ; SST ; Southern Ocean