# Seasonality of blue and fin whale calls west of the Antarctic Peninsula

Ana Širović, John A. Hildebrand, Sean M. Wiggins, Sue E. Moore, Mark A. McDonald, and Deborah Thiele

**Abstract**

The calling seasonality of blue (*Balaenoptera musculus*) and fin (*B. physalus*) whales was assessed using acoustic data recorded on seven autonomous Acoustic Recording Packages (ARPs) deployed from March 2001 to February 2003 west of the Antarctic Peninsula. A minimum of 258,706 blue and 72,194 fin whale calls were detected. Blue whales were present year round and their calls were detected 177 days/year on average. Peak calling occurred in March and April, with a secondary peak in October and November. Calling was lowest between June and September, and in December. Calling fin whales were present between February and June (on the average 51 days/year), with peak calling in May. Sea ice concentrations were determined from the Special Sensor Microwave / Imager passive microwave data available through 31 December 2002. Sea ice generally formed a month later and retreated a month earlier in 2001 than in 2002 over all sites. During the entire deployment period, detected calls of both species of whales showed negative correlation with sea ice concentrations. Also, there appeared to be a northeast-southwest movement of calling whales along the continental shelf break, which could correspond to prey movement.