Underwater ambient noise in the Alaskan Arctic from 2006–2009

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Abstract

The Arctic Ocean has experienced diminished ice cover as record lows have been measured for sea ice thickness, a proxy for multiyear ice. Perennial pack ice is diminishing while thin seasonal pack ice is more prevalent. These changes in sea ice affect the acoustic field as well as the sources of sound, both natural and anthropogenic. From September 2006 to June 2009, we conducted passive acoustic monitoring on the Chukchi Sea continental slope, collecting a nearly continuous record of sound offshore of northern Alaska. We report seasonal changes in ambient noise levels correlated with sea ice dynamics, wind speed, and seismic surveys occurring in both the Chukchi and Beaufort Seas.