

NOAA researcher says Arctic marine mammals are ecosystem sentinels

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White killer whale swimming with its pod near the Aleutian Islands. Photo: H. Fearnbach, NMML, NMFS permit 782-1719.

As the Arctic continues to see dramatic declines in seasonal sea ice, warming temperatures and increased storminess, the responses of marine mammals can provide clues to how the ecosystem is responding to these physical drivers.

Seals, walruses and [polar bears](#) rely on seasonal sea ice for habitat and must adapt to the sudden loss of ice, while [migratory species](#) such as whales appear to be finding new prey, altering migration timing and moving to new habitats.

"Marine mammals can act as ecosystem sentinels because they respond to climate change through shifts in distribution, timing of their movements and feeding locations," said Sue Moore, Ph.D., a NOAA oceanographer, who spoke today at the annual meeting of the American Association for the Advancement of Science in Chicago. "These long-lived mammals also reflect changes to the ecosystem in their shifts in diet, body condition and physical health."

Moore, who was part of a panel of U.S. and Canadian scientists on the health of marine mammals and indigenous people in the Arctic, stressed the importance of integrating [marine mammal](#) health research into the overall climate, weather, oceanographic and [social science research](#) on changes in the Arctic.

"Marine mammals connect people to ecosystem research by making it relevant to those who live in the Arctic and depend on these mammals for diet and cultural heritage and people around the world who look to these animals as symbols of our planet's health," Moore said.

More information: Additional detail on ecosystem responses to Arctic climate change is available at the NOAA Arctic Report Card web site: www.arctic.noaa.gov/reportcard/

For information on the Distributed Biological Observatory, a change detection array that brings together physical and biological observations in the Arctic go to this site: www.arctic.noaa.gov/dbo/about.html

Provided by NOAA Headquarters

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