

Characterizing whale vocalization can help map migration

December 3 2019



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Killer whale pods each have their own set of calls they use to communicate, sometimes referred to as the pod's "dialect." By characterizing an individual pod's calls, researchers can track the pod's

seasonal movements, gaining a better understanding of the whales' lives.

Jessica Sportelli, at the Scripps Institution of Oceanography at the University of California, San Diego, studies a pod of relatively unknown killer [whales](#) in Pond Inlet, Nunavut, Canada. Because little is currently known about this pod's ecology, Sportelli will describe their repertoire of calls at the 178th Meeting of the Acoustical Society of America, which will take [place](#) Dec. 2-6, at the Hotel del Coronado in San Diego.

The talk, "Call discrimination for an unknown pod of killer whales (*Orcinus orca*) in the Eastern Canadian Arctic," will be presented at 10:05 a.m. Pacific (U.S.) on Tuesday, Dec. 3 as part of a session on low-frequency sound production and passive acoustic monitoring.

Having a unique dialect allows the members of a pod to maintain cohesion and avoid inbreeding by being able to identify other members. Because call repertoires are unique to a pod, understanding them can help scientists observe the pod over time and map their migration behavior.

"Once we know more about where they come from and more about their migration abilities, we can start asking questions like, Why are they leaving their place of origin? What is changing about their place of origin, or what is now lacking in their place of origin that they needed to move in the summer?" said Sportelli.

A predominantly Inuit community, Pond Inlet has seen an increase in killer whales, which may affect the prosperity of indigenous subsistence hunters. Sportelli hopes to obtain acoustic readings of other whale populations around the North Atlantic to compare with the calls at Pond Inlet and build a timeline of the whales' movement.

"It is one piece of the puzzle to understanding the life history of these

animals," Sportelli said. "We don't know a lot about North Atlantic [killer whales](#), so any information on them that gives us a fuller picture on how they live their lives is important."

More information: Sportelli's presentation 2aAB8, " Call discrimination for an unknown pod of killer whales (*Orcinus orca*) in the Eastern Canadian Arctic," will be at 10:05 a.m. PT, Tuesday, Dec. 3, in the Edison room of the Hotel del Coronado in San Diego.

acousticalsociety.org/asa-meetings/

Provided by Acoustical Society of America

Citation: Characterizing whale vocalization can help map migration (2019, December 3) retrieved 18 July 2024 from <https://phys.org/news/2019-12-characterizing-whale-vocalization-migration.html>

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