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Salish Sea Ecosystem Conference

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Biological impacts of underwater noise from vessels

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Collaborating to reduce impacts of underwater noise from vessels with a focus on southern resident killer whales: Two-part special session followed by a panel discussion. Part A: Biological impacts of underwater noise from vessels.

Vessel activities in the Salish Sea are increasing in areas that overlap with southern resident killer whale critical habitat. Both Canadian and U.S. Recovery Plans for southern resident killer whales (SRKW's) include underwater noise as a key threat to recovery. The purpose of this session was to bring together researchers, environmental managers, industry, whale-watchers, First Nations and other interested parties to discuss the collaborative approaches taken by regional groups to better understand and reduce the impacts of shipping on endangered southern resident killer whales in the Salish Sea.

This session was the first in a sequence of three related sessions and included six presentations on the results of recent research on vessel noise and its impacts on whales, including:

- insights into killer whale foraging behavior gleaned from DTag and behavioural response studies (by Brianna Wright, Marla Holt, and Jennifer Tennessen),
- methods to monitor vessels (both AIS and non-AIS equipped) and whales in the Salish Sea (Lauren McWhinnie),
- comparing underwater noise source levels between commercial ships and whale-watching vessels (Jason Wood), as well as
- a presentation on noise reduction strategies that could quieten underwater conditions to improve the acoustic environment for whales (Val Veirs).

The presentations were well attended and informative, and each reinforced the importance of quietening conditions for SRKWs with the goal of supporting the recovery of this endangered population.

Keywords:

Killer whales
Underwater noise
Shipping
Mitigation
Management
Case study
Collaboration
ECHO Program