

Sound & marine life

The Arctic is a permanent or temporary home to a wide variety of marine life including fish, whales, polar bears, seals and walrus. All are important to the ecology of the region as well as to the indigenous human population, who rely on many of these species for food and the continuation of their traditions.

As part of determining the risk of operations on the environment, the oil and gas industry assesses the potential effects of sounds generated by our operations. This involves studying marine life in the area to help identify any significant environmental risks and then developing mitigation strategies to address such risks.

This work is increasingly important for operations in areas of environmental sensitivity such as the Arctic.

To progress our understanding a group of OGP members is funding research via a multi-year joint industry programme. Its aims:

- To better characterise the sounds the upstream oil and gas industry produce
- To determine the potential impacts of these on marine life
- Improve risk assessments and mitigation

All of this joint industry programme's research is subject to rigorous peer review as part of the process leading to publication in scientific journals and sharing with other oil and gas operators, regulators and the public.

In particular, this highly-focused effort has commissioned studies to answer specific questions raised by regulators, participating companies themselves and research scientists. Scientific advances as well as new questions raised from developing knowledge are also key to developing research efforts.

To date, the developing joint industry programme research has addressed most of the key questions originally identified during the scoping phase of the project. Answers to many of the remaining questions are in the research pipeline. A recently executed extension to the joint industry programme, which could support further research funding for another three years, will yield even more results.

Equipped with scientific knowledge from the Joint Industry Programme and other related research, oil and gas companies – as well as OGP's own Sound & Marine Life Task Force (run jointly with the International Association of Geophysical Contractors – and consisting of a broader membership than the Joint Industry Programme) – will be well-positioned to work with government officials to advance science-based guidelines for managing sound from upstream activities.

A number of joint industry programme projects have specific application in Arctic waters, where ice cover and low temperatures have a unique bearing on sound propagation. Arctic-relevant research includes work on:

- Improving the industry's understanding of and quantifying the full range of sounds generated by industry activities, including seismic surveys using air guns
- Investigating hearing thresholds, ranges and sensitivities of large whales (including those which feed in Arctic waters) and Arctic seals
- Developing better techniques to locate and monitor the presence of marine mammals – and avoid or reduce interaction with them – before commencing seismic operations. These include passive acoustic monitoring and the use of remotely controlled aircraft
- Improving recording and reporting protocols for marine mammal observers participating in seismic surveys and other operations, additionally promoting the use of these data for advancing scientific knowledge

Through this research and operational experience, we are advancing the understanding of any risks or impacts our industry might be having on the marine environment. Such understanding leads to the development of new tools and mitigation measures.

We recognise the importance of applying this knowledge in Arctic operations to protect the environment and allow indigenous people to maintain their subsistence lifestyle, while managing the use of natural resources in the Arctic.

For updates on this joint industry programme research, visit www.soundandmarinelife.org

About OGP

OGP represents the upstream oil & gas industry before international organisations including the International Maritime Organisation, the United Nations Environment Programme (UNEP), Regional Seas Conventions and other groups under the UN umbrella. At the regional level, OGP is the industry representative to the European Commission and Parliament and the OSPAR Commission for the North East Atlantic. Equally important is OGP's role in promulgating best practices, particularly in the areas of health, safety, the environment and social responsibility.

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