

EGU21-16515

<https://doi.org/10.5194/egusphere-egu21-16515>

EGU General Assembly 2021

© Author(s) 2022. This work is distributed under the Creative Commons Attribution 4.0 License.



## Litter and Microplastics: Environmental monitoring in the Arctic

Jan Rene Larsen<sup>1</sup>, Jennifer Provencher<sup>2</sup>, and Eivind Farnen<sup>3</sup>

<sup>1</sup>Sustaining Arctic Observing Networks (SAON), Norway

<sup>2</sup>Ecotoxicology and Wildlife Health Division, Science and Technology Branch, Environment and Climate Change Canada, Government of Canada, Ottawa, Canada

<sup>3</sup>Norwegian Environment Agency, Norway

While the Arctic Ecosystem is already stressed by the effects of the climate crisis, another threat is emerging: plastics. Plastic pollution has become an environmental issue of the highest concern world-wide, and the plastic pollution tide is also rising in the Arctic.

The pristine Arctic environments, far from most of the world's major industrial areas, are becoming laden with plastic pollution. Microplastics have been found in Arctic snow, sea-ice, seawater, in sediments collected on the ocean floor, and on Arctic beaches. Larger pieces of plastic debris are also making their way into the food webs as whales, fish and birds can ingest them or get entangled in them. Climate change is expected to exacerbate the amount of debris in the Arctic, via melting sea-ice and increasing contributions from human activities.

The Arctic Monitoring and Assessment Programme (AMAP) is a Working Group of the Arctic Council. AMAP has a mandate to monitor and assess the status and trends of contaminants in the Arctic. In the Spring of 2019, AMAP decided to step up its efforts on the plastic issue and established an Expert Group on microplastics and litter with experts from Arctic Council States and Observer countries.

The Expert Group has developed a comprehensive monitoring plan and technical guidelines for monitoring microplastics and litter in the Arctic. It will be the first time that all parts of the Arctic ecosystem are examined for traces of this type of pollution. The Expert Group aims to:

- Design a program for the monitoring of microplastics and litter in the Arctic environment.
- Develop necessary guidelines supporting the monitoring program.
- Formulate recommendations and identify areas where new research and development is necessary from an Arctic perspective.