

WP 8 – Cleaner Arctic, cleaner world: documenting and reducing pollution



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Programme (AMAP) Secretariat

Aim of the WP

- *Pollution - an increasing societal challenge*
- *Terrestrial monitoring is still inadequate*
- *New chemicals of concern are being found in the Arctic*



“Station Managers’ Forum will document the use of plastics at stations and recommend options for reduced environmental footprints of stations and researchers. “

“ ... activity to identify emerging pollutants at INTERACT Stations ... and use this information ... “

“Additional measures to document and respond to pollution will greatly enhance local and international services offered by the advanced infrastructure.”

Progress – Task 8.0 – **CONTINUOUS**

Task 8.0 WP management

Activity: Administrative tasks.

Status: General administrative/financial requests from project coordinators

Performance indicators (share survey results in mid-June):

Giorgio Falsaperna

- “Environmental contaminant monitoring” section: statistical analysis describing current situation (e.g. radar chart for 4a and 4b) and, down the line, an incremental pattern to a desired to-be in case development projects will be implemented.
- As above, concerning “Laboratories and sample handling” section, an improvement statistical trend could be monitored in the presence of development projects.
- For “Community Engagement”, qualitative analysis.





Progress – Task 8.1 – **DELIVERABLE DUE**

Task 8.1 Identifying emerging pollutants ...

where INTERACT can play a role, and policies suggested to reduce/minimize use/impacts

Activity: Review existing information on chemicals of emerging Arctic concern to identify those most relevant with respect to possible use/presence at or around selected INTERACT research stations, for possible investigation of occurrence and/or actions to reduce possible local contamination.

Activities:

INTERACT webinar: 10 March 2021 in cooperation with WP2

WP8 Survey questionnaire circulated (2020 >>> Feb 2021)

- **D8.1** Catalogue listing local and transboundary emerging pollutants selected for possible (targeted) screening at INTERACT Stations (Month 18 / Jul 2021)

Status:

Under preparation due 16 June >>> 16 July

INTERACT III Webinar: Contaminant monitoring at INTERACT stations - challenges

Presentations by Katrin Vorkamp (DK) and Pernilla Bohlin Nizzetto (NO)

Programme:

17:00 Opening (Morten Rasch, Chair) - Introduction to seminar

17:10 AMAP Arctic contaminant and plastic monitoring programmes

- Short intro to AMAP monitoring programme in general (Simon Wilson)
- Short introduction to 'contaminant screening' methods (Katrin Vorkamp)
- Short introduction to practical issues, guidelines and protocols (Pernilla Bohlin Nizzetto)
- Introduction to WP8 survey form and request for Station Managers to complete this (Simon Wilson)

SCREENING FOR CHEMICALS OF EMERGING ARCTIC CONCERN

Katrin Vorkamp

Aarhus University, Department of Environmental Science, Denmark

Mem



CHALLENGES AND REQUIREMENTS FOR SITES INVOLVED IN SCREENING FOR NEW CONTAMINANTS AND (MICRO)PLASTICS

Pernilla Bohlin Nizzetto

NILU – Norwegian Institute for Air Research, Norway



Nordisk institutt for luftforskning
Norwegian Institute for Air Research

Recording (partly) available:

<https://www.youtube.com/watch?v=ps1bwioW72M>

INTERACT III – Survey of Pollution Screening Activities in the INTERACT station network

Online survey:

<https://docs.google.com/forms/d/e/1FAIpQLSc-LhIR584gB5HBQ57ljh5HfBYC9gEEExAmjVoB7pKAO8iV7vQ/viewform?fbzx=8410588047322694722>

INTERACT III: Survey of Pollution Screening Activities in the INTERACT station network

This survey is intended to collect information on contaminants at stations participating in the INTERACT network.

The survey comprises 14 questions, some with multiple choice responses. It is anticipated that the questionnaire will be completed by the end of the survey period.

The information gathered through this survey will be used in connection with WP8 Tasks 8.1-8.3.

[Task 8.1 - Identifying emerging pollutants which may be suggested to reduce or minimize. Development of protocols for screening monitoring stations. Task 8.3 - Enhancing screening activities.]

Next

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19 responses

Summary Question Individual

I. Survey Detail

1. This survey response is completed for INTERACT STATION (enter station name):


19 responses

- Sonnblick Observatory
- Netherlands Arctic Station part of NyAalesund Research Station
- Greenland Institute of Natural Resources
- Station Hintereis
- ECN Cairngorms
- Abisko Scientific Research Station
- M&M Klapa Station
- Dirigibile Italia - CNR - Ny-Alesund
- Sudurnes Science and Learning Center



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ECN Cairngorms
Abisko Scientific Research Station
M&M Klapa Station
Dirigibile Italia - CNR - Ny-Alesund
Sudurnes Science and Learning Center
Oulanka research station
Arctic Station
Whapmagootsui-Kuujuarapik Research Complex
Litla Skard
Villum Research Station
Pallas-Sodankylä
Khibiny research station LMSU
Polar Environment Atmospheric Research Laboratory (PEARL)
Nicolaus Copernicus University Station
Mukhrino FS

Deadline extended to 15 June



INTERACT III – Survey of Pollution Screening Activities in the INTERACT station network – preliminary observations

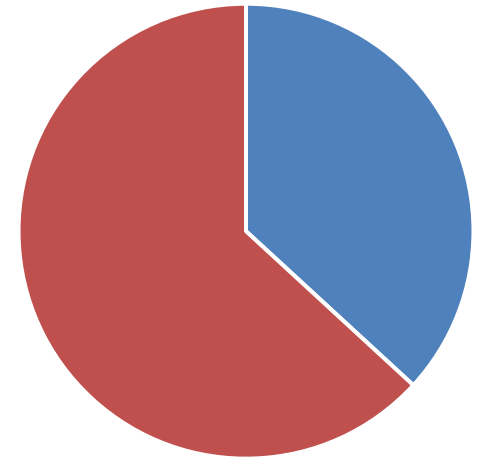
Awaiting additional responses before undertaking analysis

Some preliminary observations

So far:

- 19 responses (**latest ... 25**)
- 7/19 ... contaminants monitored at the station
- 6 air monitoring; 2 water; 2 biota (1 marine, 1 terrestrial, 1 both)
- 4 POPs/CEAC; 2 plastics
- 2 involved in screening programmes

– full picture or reflection of Station Managers knowledge?



Deadline extended to 15 June

Progress – Task 8.2 – **FIRST STEPS**

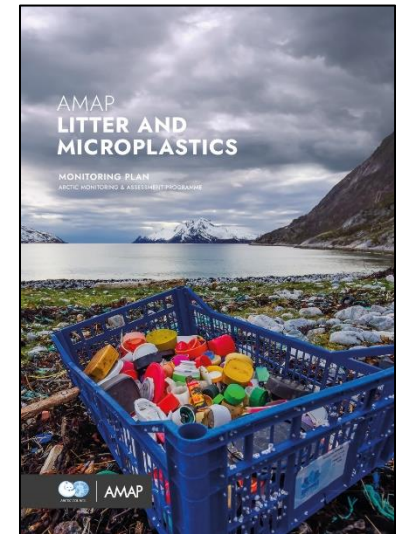
Task 8.2 Development of protocols for screening monitoring at and close to selected INTERACT monitoring stations

Activity: Design, in consultation with INTERACT station managers and others protocols for investigating the presence of chemicals of emerging concern at or around INTERACT stations using target and/or non-target screening methods

Activities: Communication with experts involved in screening activities under relevant initiatives including AMAP and NORMAN networks; AMAP 2021-2023 workplan includes work on guidelines that can be connected to the INTERACT activity

- **D8.2** Protocols for (target and non-target) screening of contaminants of emerging concern at INTERACT stations (Month 24 / Jan 2022)

AMAP litter and plastics monitoring plan and guidelines: [overview](#) / [monitoring plan](#)



Progress – Task 8.4 – **FOR INFORMATION**

Task 8.4 Informing appropriate agencies of potential threats from emerging pollutants

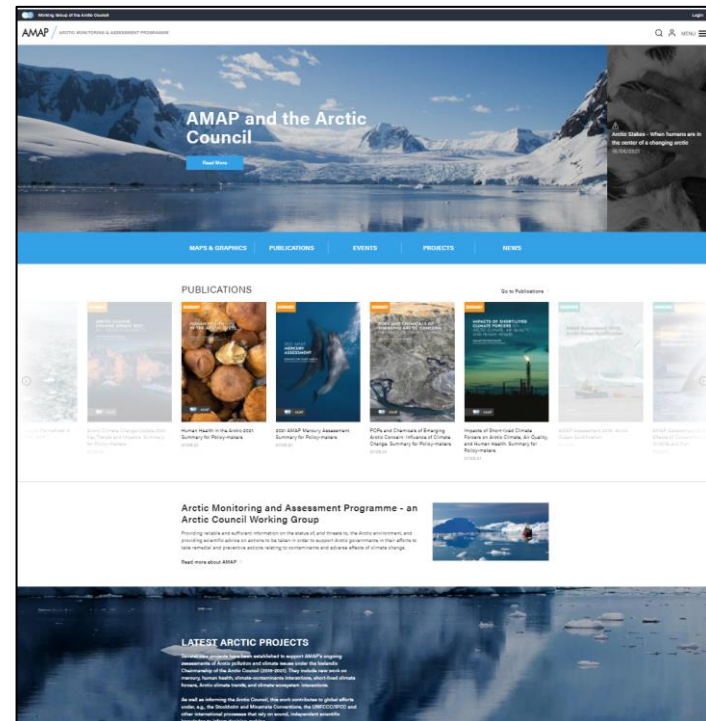
Status: not yet relevant

For information:

Policy-makers summaries of new AMAP assessment of climate change influence on POPs and mercury in the Arctic were released 20 May 2021 in connection with Arctic Council Ministerial meeting.

Short film on AMAPs recent assessment work

See www.amap.no



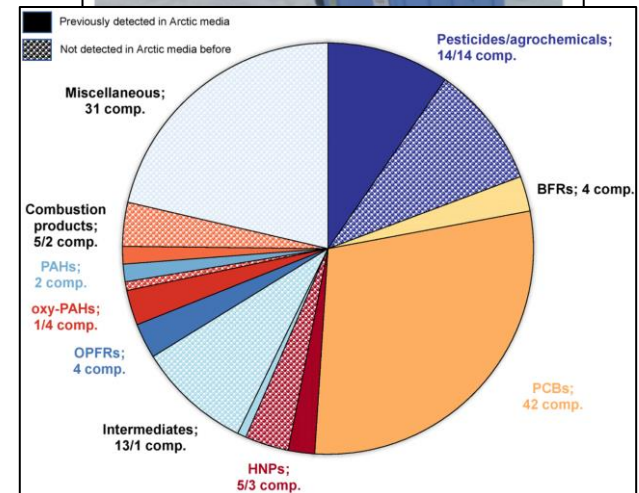
Internal collaboration

Task 2.5 Cleaner Arctic (Lead: AU)

- ... will contribute to WP8
- ... will explore ways in which research stations can reduce their pollution
- ... will explore ways in which research stations can contribute to the AMAP and other monitoring programmes on pollution by implementing a pilot monitoring programme at a minimum of four INTERACT stations
- 2.5.1 ... a survey on energy use and sources, plastic types/usage, waste handling at INTERACT stations ...
- 2.5.2 ... a pilot implementation plastic monitoring programme at four selected INTERACT stations in collaboration with local communities

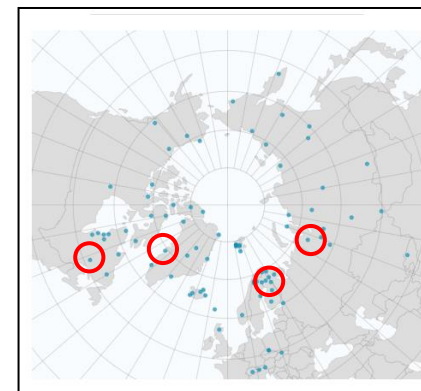
What information would be helpful from the other WPs?

- Which stations, and which local communities <<< **4 KEY STATIONS + OTHERS? (SURVEY INFORMATION)**
- Contact points (station managers , community contacts, researchers) <<< **NEXT STEPS**
- Stations where researchers are engaged in contaminant monitoring <<< **NEXT STEPS**



Next steps

1. Continue contacts with external experts (**ongoing**)
2. Complete survey
 - Selected stations
 - ✓ Oulanka Research Station, Finland (19)
 - ✓ Arctic Station, Greenland (73)
 - The Arctic Research Station, Russian Federation (30)
 - ✓ Centre d'étrudes nordique, CEN) (65)
 - All stations – extended deadline (**31 March >>> 15 June**)
3. Compile survey results (**end-2020 >>> June-2021**)
4. Work to finalize D.1 (**Deliverable not quite yet over- due**)
5. Identify researchers active in contaminants work using INTERACT stations in their work, and candidates for mentoring (task 7.5) – **How? Potential contributors to new AMAP POPs assessment with focus on local sources (2021-2023)**



Thanks

