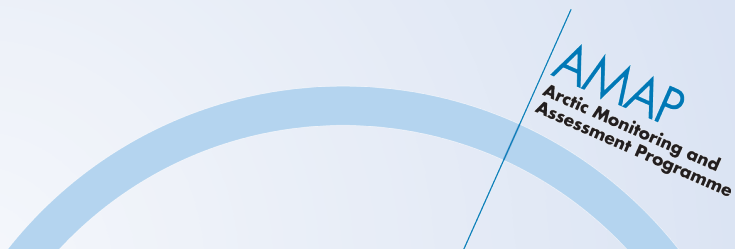


Arctic contaminant and plastic monitoring programmes

Interact III Webinar, 10 March 2021

WP8 (Cleaner Arctic, cleaner world: documenting and reducing pollution)

Simon Wilson (AMAP)



INTERACT III WP8/AMAP Webinar Component – 4 Parts

1. Overview of AMAP contaminants monitoring
(Simon Wilson s.wilson@amap.no)
2. Screening (monitoring?) for chemicals of emerging Arctic Concern
(Katrin Vorkamp kvo@envs.au.dk)
3. Challenges and requirements for sites involved in screening/monitoring for new contaminants and (micro)plastics
(Pernilla Bohlin Nizzetto pbn@nilu.no)
4. Surveying contaminants monitoring/screening work at INTERACT stations ... with a view to building engagement in this work
(Simon Wilson)

Q&A: Enhancing contaminants work at INTERACT stations

Part 1: Overview of AMAP monitoring of environmental contaminants

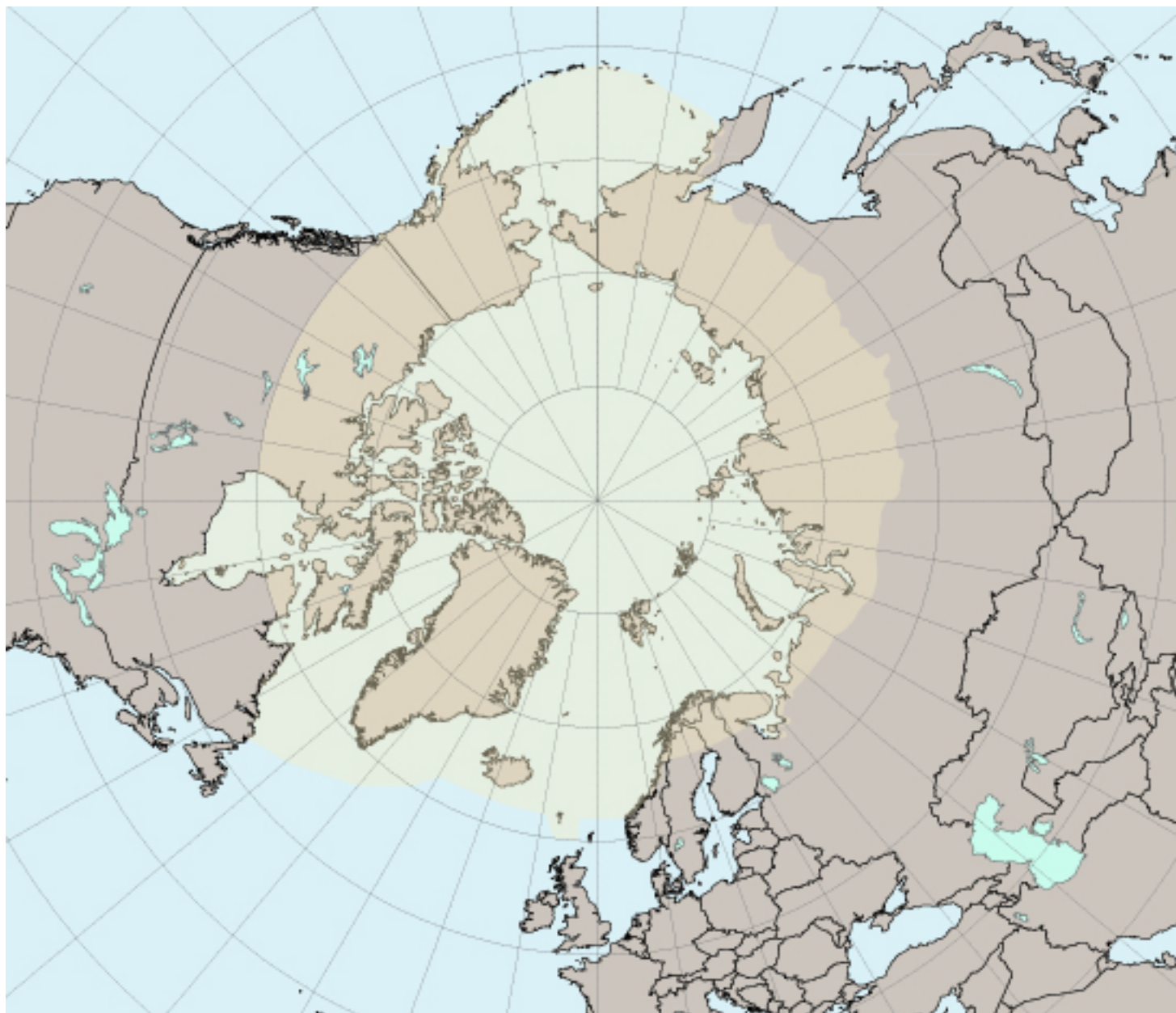
- Which contaminants
 - Metals (mercury [Cd], [Pb] ...)
 - Persistent organic pollutants (POPS)
 - chemicals regulated under the Stockholm Convention ... industrial chemicals/by-products e.g. PCBs, BFRs
 - OC pesticides, e.g. DDT, HCHs, toxaphene
 - recently listed chemicals e.g. PFOS
 - Chemicals of Emerging Arctic Concern
- Which compartments/media
 - Atmospheric (air, precipitation/deposition)
 - Marine (biota, water/SPM, [sediment], sea ice)
 - Freshwater (biota, water/SPM, [sediment])
 - Terrestrial (biota, soils, snowpack, ice)
 - Humans (biomedia)



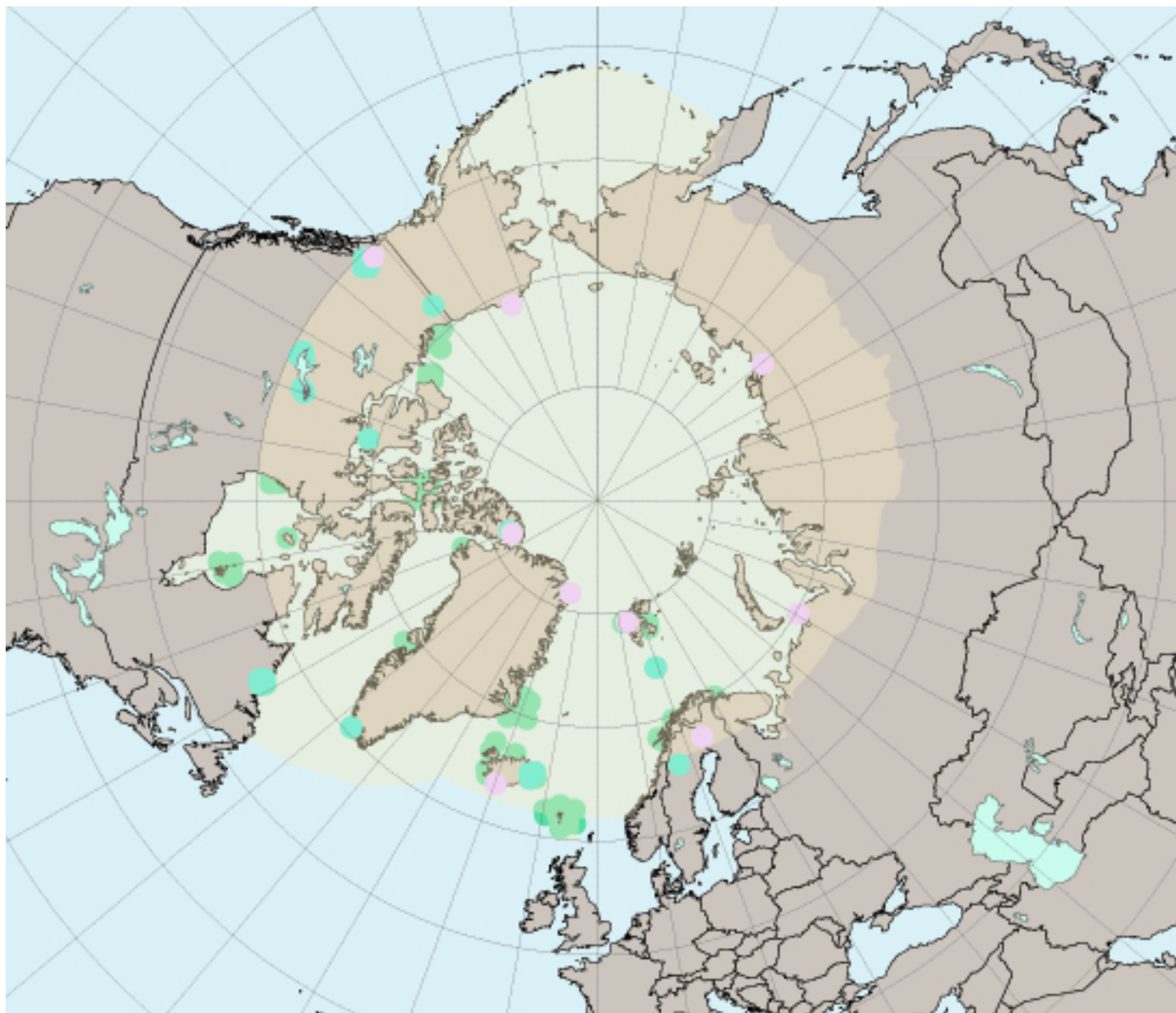
AMAP contaminants monitoring

- Long-range transport vs Local sources
- National programmes >> AMAP programme
 - Harmonization
 - Guidelines
 - Regional cooperation
 - Data management
- Baseline >>> Long-term trends
- Monitoring to Assessment
- Research





The AMAP 'area'



AMAP long-term
monitoring sites



INTERACT stations



INTERACT stations
... monitoring
contaminants?

Part 2: Katrin Vorkamp: Screening (monitoring?) for chemicals of emerging Arctic Concern

Part 3: Pernilla Bohlin Nizzetto: Challenges and requirements for sites involved in screening/monitoring for new contaminants and (micro)plastics

Part 4: Surveying contaminants work at INTERACT stations

Interact database: 39 sites reported that Environmental studies are carried out at their stations; ca. 17 reported monitoring pollutants (in plants/animals)

Although not doing contaminants work, other stations may be collecting information important to interpretation of monitoring data (e.g., climate-related observations)

INTERACT stations

monitoring particles/aerosols, pollutants:

AWIPEV Research Base, Svalbard
CNR Arctic Station Dirigibile Italia
Svartberget Research Station, Sweden
Sonnblick Observatory, Switzerland (Alpine)
Polar Environmental Atmospheric Research Laboratory, Canada
Nunavut Research Institute, Canada
Summit Research Station, Greenland
Villum Research Station?
Abisko?

monitoring contaminants in plants, mammals, birds or fish:

Netherlands Arctic Station, Svalbard
Polish Polar Station Hornsund, Svalbard
KEVO Subarctic Research Institute, Finland
CEN Bylot Island Research Station, Canada
Nunavut Research Institute, Canada
Litlas Skard, Iceland
Skalanes Research Station, Iceland
Sonnblick Observatory, Switzerland
Krkonoše, Czech Republic
Karkonosze, Poland



Surveying contaminants work at INTERACT stations

Survey questionnaire

https://docs.google.com/forms/d/e/1FAIpQLSc-LhiR584gB5HBQ57ljh5HfBYC9gEEExAmjVoB7pKAO8iV7vQ/viewform?usp=sf_link

Testing (4 sites)

(All sites ... please complete)



Part 5: Q&A

- How to increase participation of INTERACT stations in future contaminants work
- Site manager engagement?
- Station researcher engagement?
- Local community engagement?
- Sample collection?
- Other suggestion/ideas?

