WP7 - Dissemination and outreach

Donatella Zona & Ruth Higgins

GA on line 13 January 2021

Thomas Juul Pedersen, GIRN

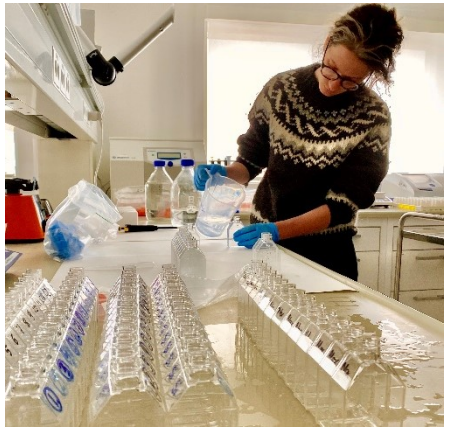
Deliverable 7.7

https://intaros.nersc.no/content/educational-material-v1

Deliverable 7.7 An overview of existing dissemination materials and products that are targeted for teaching and/or intended for outreach purposes. The referenced teaching materials include products aimed at students ranging from school to university level. The outreach materials are aimed at communicating knowledge about the INTAROS project, the scientific work, key findings as well as promoting general knowledge about climate and climate change.

Arctic Science Study Programme (ASSP) offering international field based graduate courses on Arctic Nature, Society and Climate in Nuuk, Greenland.

Students conducting fieldwork during the course ”Arctic Marine Ecosystems in a Changing Climate”



Agata Goździk
Institute of Geophysics Polish Academy of Sciences

FREELY AVAILABLE
Terrestrial monitoring: https://graasp.eu/s/zg2db8
Marine monitoring: https://graasp.eu/s/t4f5cb

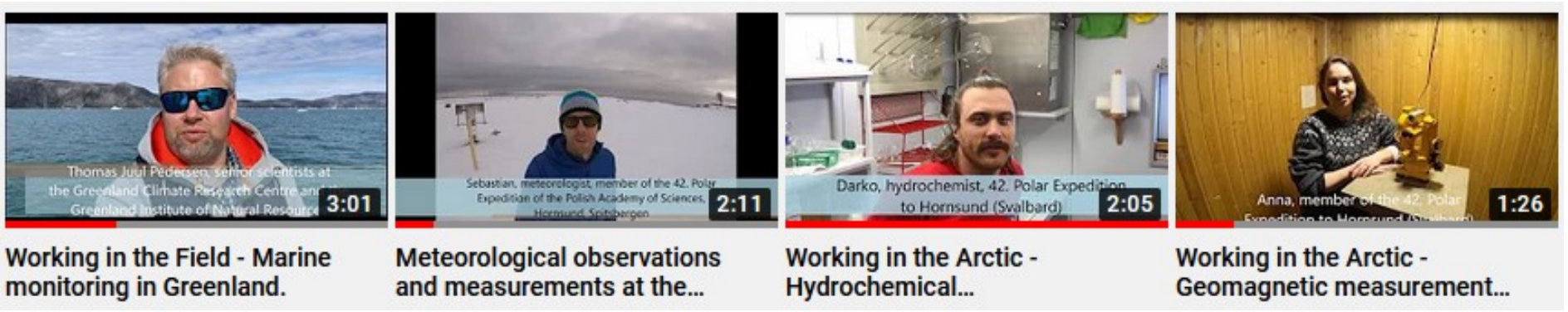
Deliverable 7.9

Deliverable 7.9 provides an overview of educational materials, which were produced specifically by INTAROS for teachers and students of lower and upper secondary schools in order to enhance literacy of Arctic Observations among teachers and students.

Educational packages include:

- 4 videos with researchers,
- INTAROS trailer,
- INTAROS video and graphic on field campaigns in the Arctic,
- INTAROS marine TABOO game,

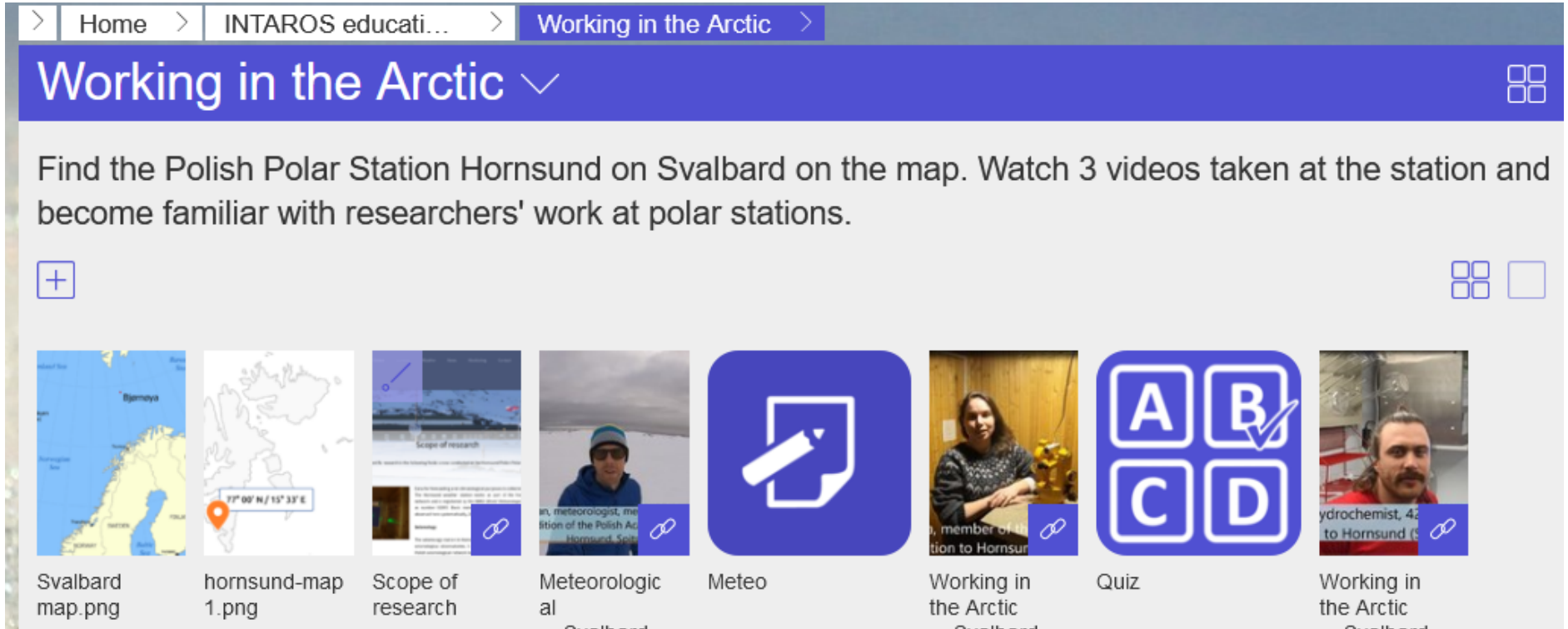
as well as products produced outside the project (e.g. National Geographic videos, WMO video, TedEd lesson, Polarpedia resources).



Deliverable 7.9

The first package is dedicated to the **terrestrial monitoring** of the Arctic.

- **Keywords:** Arctic, Svalbard, terrestrial monitoring, meteorology, Earth magnetic field, hydrochemistry
- **Age Range: 14-18**
- **Didactical Hours: 2-3 didactical hours**



Deliverable 7.9

The second package is dedicated to the Arctic Ocean and its monitoring.

- **Keywords:** Arctic Ocean, Greenland, marine monitoring, sea ice, salinity, nutrients
- **Age Range: 14-18**
- **Didactical Hours: 2-3 didactical hours**

Welcome to the Arctic Ocean

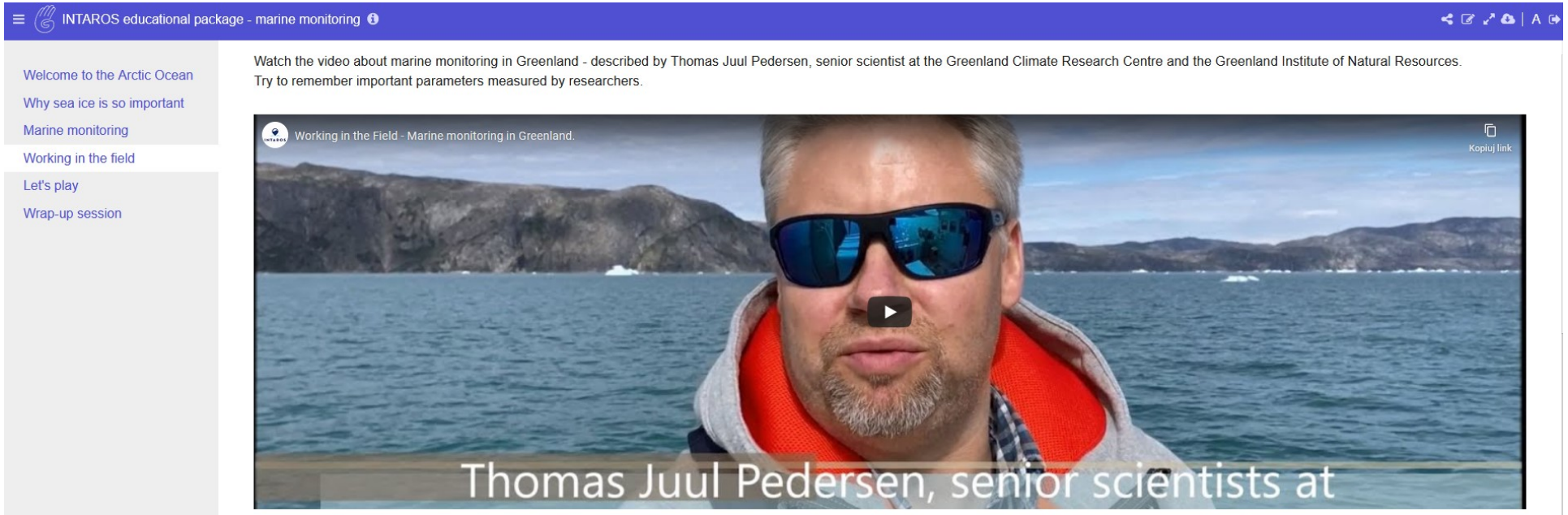
Why sea ice is so important

Marine monitoring

Working in the field

Let's play

Wrap-up session



Two INTAROS Special issues: Science & Outreach

SCIENCE SPECIAL ISSUE (Inter-journal Copernicus journals)

- *Proposal submitted* to the Editors of *Ocean Sciences* (lead journal)
- 18 potential manuscripts
- Guest editors (Ocean (2), terrestrial (2), Cryosphere or atmosphere (1);…)
- *Topic editor OS: Mario Hoppema AWI [Mario.Hoppema@awi.de]*
  NOT Mario Hoppmann AWI [Mario.Hoppmann@awi.de]
- *Mario Hoppema forwarded our request to the OS editorial board with is reviewing our proposal*

Provide potential manuscript details

- preliminary title
- Copernicus Journal
- WP & submission date
- email of the corresponding author

- Once the submission is open we will let you know, but you can already submit your paper (please let us know)
- And we can also link also papers already published (recently published)
- Any volunteer for guest editor?

Authors and topic of paper	EGU Journal	INTAROS WP	Tentative submission
Mathias D. et al., (including Chauvaud L.) Topic : Increase of touristic vessel noise in Kongsfjorden	Ocean Science	Task 3.3 : Underwater acoustics in Fram	End of June 2020
and testing of the automatic SVC-FMI spectro-albedometer	Geoscientific Instrumentation, Methods and Data Syste	Enhancement of Sodankylä supersite	End of 2020
Rogge A. et al. (including Waite A.) Topic: Particle distribution north of Svalbard during Arctic winter 2019/2019	Ocean Science (OS) or Biogeosciences (BG)	Tsk 3.2 North of Svalb	Mid 2021
Lappalainen H.K., Mahura A. et al. Topic: "Insight to in situ stations in Russia and a service concept for atmospheric - ecosystem in situ data	?		end of 2020
Ludwigsen	Ocean Sciences / Earth Surface Dynamics	WP2 + WP6	Mid 2020
Florent Domine et al. Impact of shrub expansion on snow thermal conductivity on Bylot Island, Canadian high Arctic, based on 3 years of continuous	The Cryosphere (TC) or Biogeosciences (BG)	Task 3.5	September 2020
Wilkman E., D. Zona, K. Arndt, W. Oechel, D. Lipson, Sub-zero methanol oxidation dynamics through the Arctic shoulder season	Biogeosciences	WP3	Sep-20
Sagen, Lygre, Storheim, Roland Hansen ++ et al. Arctic Acoustic Environments	Ocean Science	WP2+WP3+WP6	mid 2021
Beszczynska-Möller A., Walczowski W., Grynczel A., et al., Long-term AREX program onboard RV Oceania - 33 years of physical oceanography along the Atlantic inflow route through the Nordic Seas towards the Arctic Ocean and into Svalbard fjords	Earth System Science Data (ESSD)	WP3 + WP2	mid 2021
Roden N., Sagen H., Walczowski W., at al. (in alphabetic order - the lead author TBD later) Topic: Variability of Atlantic water properties and transport north of Svalbard during INTAROS measurements	Ocean Science	WP3	late 20201
Beszczynska-Möller A., Houssais M.-N., Herbaut C., Walczowski W., et al. (in alphabetic order - the lead author TBD later) Topic: Heat fluxes in Atlantic water north of Svalbard, vertical and shelf-basin exchanges	Ocean Science	WP3	late 2021
Beszczynska-Möller A.,Grynczel A., Roden N., Smedsrud L.H. et al. (in alphabetic order - the lead author TBD later) Topic: Sea ice and upper ocean observations from the INTAROS moorings north of Svalbard	Ocean Science	WP3	late 2021
Beszczynska-Möller A., , Herbaut C., Houssais M.-N., Ingvaldsen R., Renner A.H.H., Sagen H., Sundfjord A., von Appen W.-J., Walczowski W., et al. (in alphabetic order - the lead author TBD later) Topic: Integrative analysis of moored observations from A-TWAIN, INTAROS and FRAM	Ocean Science	WP3	end 2021 or later - this p
BGC measuremets from INTAROS moorings TBD if stand-alone analysis or integrated with physical measurements (than longer list of co-authors)	Ocean Science (OS) or Biogeosciences (BG)	WP3	??
Houssais et al., Summer characteristics of the West Spisbergen Current and implications for the Atlantic Water inflow to the Arctic Ocean	Ocean Science	WP3	end of 2020
C. A. Ludwigsen and S. K. Rose: Assessment of 1995-2015 Arctic Ocean Sea Level Trends	Ocean Science	WP2	Sep-20
Pallandt, M; Goeckede, M, et al.: Representativeness and expansion potential of the high latitude eddy covariance station network	Biogeosciences	WP2	Sep-20
Pallandt, M; Goeckede, M; et al.: Assessing the sensitivity of atmospheric greenhouse gas monitoring networks to detect and quantify Arctic greenhouse gas emissions under climate change	Atmospheric Chemistry and Physics	WP2	Mid 2021

OUTREACH SPECIAL ISSUE (ERL)

- *ERL webpage active!*
- 9-10 potential manuscripts
- Guest editors (from several EU projects)
- PLEASE ADVERTISE WHEN YOU PARTECIPATE TO A CONFERENCE AND CIRCULATE IN YOUR INSTITUTIONS AND AMONG COLLEAGUES

https://iopscience.iop.org/journal/1748-9326/page/Focus_on_Arctic_Change_Transdisciplinary_Research_and_Communication

ENVIRONMENTAL RESEARCH
LETTERS

Guest Editors

Peter Schweitzer, University of Vienna
Susanna Gartler, University of Vienna
Annett Bartsch, b.geos GmbH
Donatella Zona, University of Sheffield
Frédéric Bouchard, Paris-Sud University
Stein Sandven, Nansen Environmental and Remote Sensing Center
Ylva Sjöberg, University of Copenhagen

EGU outreach sessions (on-line)

collaboration among HORIZON2020 Nunataryuk, INTAROS and the T-MOSAIC programs

- In 2020: EGU2020 EOS4.1

EGU General Assembly 2020

Online | 4–8 May 2020

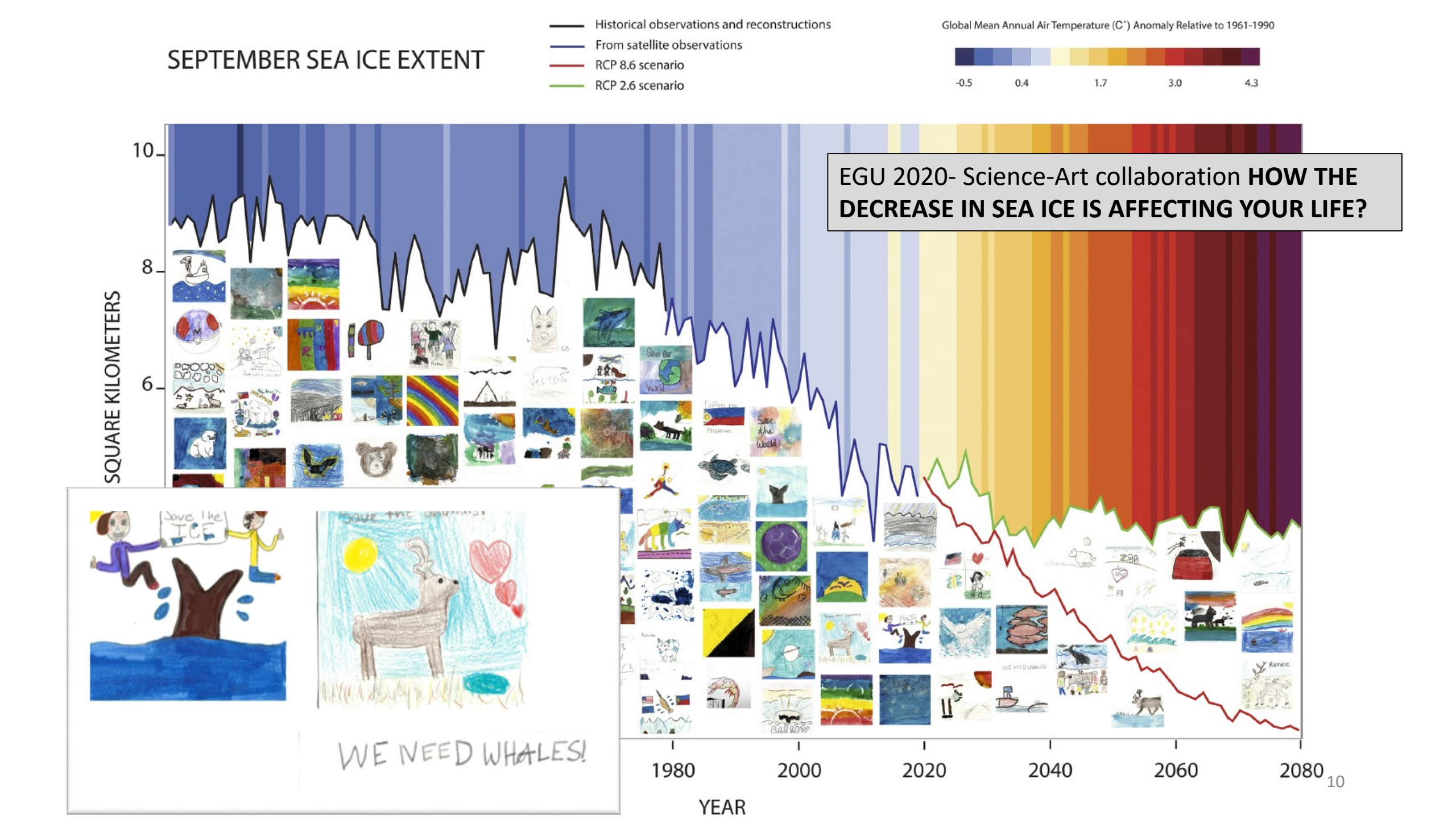
ABOUT ▾ PROGRAMME ▾ SHARING GEOSCIENCE ONLINE ▾ MEDIA ▾

ITS5.9/EOS4.14

Trans-disciplinary aspects of researching Arctic change: science communication, outreach and eductation, integration, monitoring, modelling and risk perception

Co-organized by CL4/CR4/GM7/HS12/NH9

Convener: Peter Schweitzer | Co-conveners: Susanna Gartler[ECS], Annett Bartsch, Terenzio zenone, Frederic Bouchard, Stein Sandven, Donatella Zona, Ylva Sjöberg


SEPTEMBER SEA ICE EXTENT
Historical observations and reconstructions
From satellite observations
RCP 8.6 scenario
RCP 2.6 scenario
Global Mean Annual Air Temperature (C°) Anomaly Relative to 1961-1990
-0.5
0.4
1.7
3.0
4.3
10
8
6
SQUARE KILOMETERS
1980
2000
2020
2040
2060
2080
YEAR
EGU 2020- Science-Art collaboration HOW THE DECREASE IN SEA ICE IS AFFECTING YOUR LIFE?
Save the ICE
WE NEED WHALES!

In 2021: EGU 2021 (on-line) EOS7.3 EDI Effective communication of scientific & place-based knowledge of Arctic change

submission deadline 20 January

https://meetingorganizer.copernicus.org/EGU21/session/40012

PLEASE SUBMIT AN ABSTRACT OF YOUR WORK FROM INTAROS

Price of a 500€ for the best presentation

Second best presentation 250€

(priority for early carrier)