



WP 7

Preparing for a future world: improving education and awareness at all societal levels

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Aim of WP

The main objectives are:

- to develop and deliver educational resources at school level in response to needs identified by teachers across the world*
- to increase awareness of the general public (including influential people) to Arctic environmental change and its global implications*

Progress made during the last year – Task 7.1

Increased public awareness of Arctic environmental change and its global implications (Lead: USFD, sub-contract to BBC)

*The BBC NHU
Production team in the
sound studio in Bristol*



*Recording of
the narration
(in Sir David
Attenborough's
chair!)*

Progress made during the last year – Task 7.1

Increased public awareness of Arctic environmental change and its global implications (Lead: USFD, sub-contract to BBC)

- Deliverable D7.1
- A film entitled “Arctic Amplification” showing how the changing Arctic affects the rest of the world.
- Includes the albedo effect from changing snow and ice surfaces, emissions of greenhouse gases from wild fires and thawing permafrost and finally changes in the jet stream.



Progress made during the last year – Task 7.1

Increased public awareness of Arctic environmental change and its global implications (Lead: USFD, sub-contract to BBC)

- Deliverable D7.2
- A film entitled “Extreme Causes for Concern” showing examples of extreme events that are dangerous to people and ecosystems.
- Includes coastal tsunamis, wildfires, extreme winter warming events.



Progress made during the last year – Task 7.1

Increased public awareness of Arctic environmental change and its global implications (Lead: USFD, sub-contract to BBC)

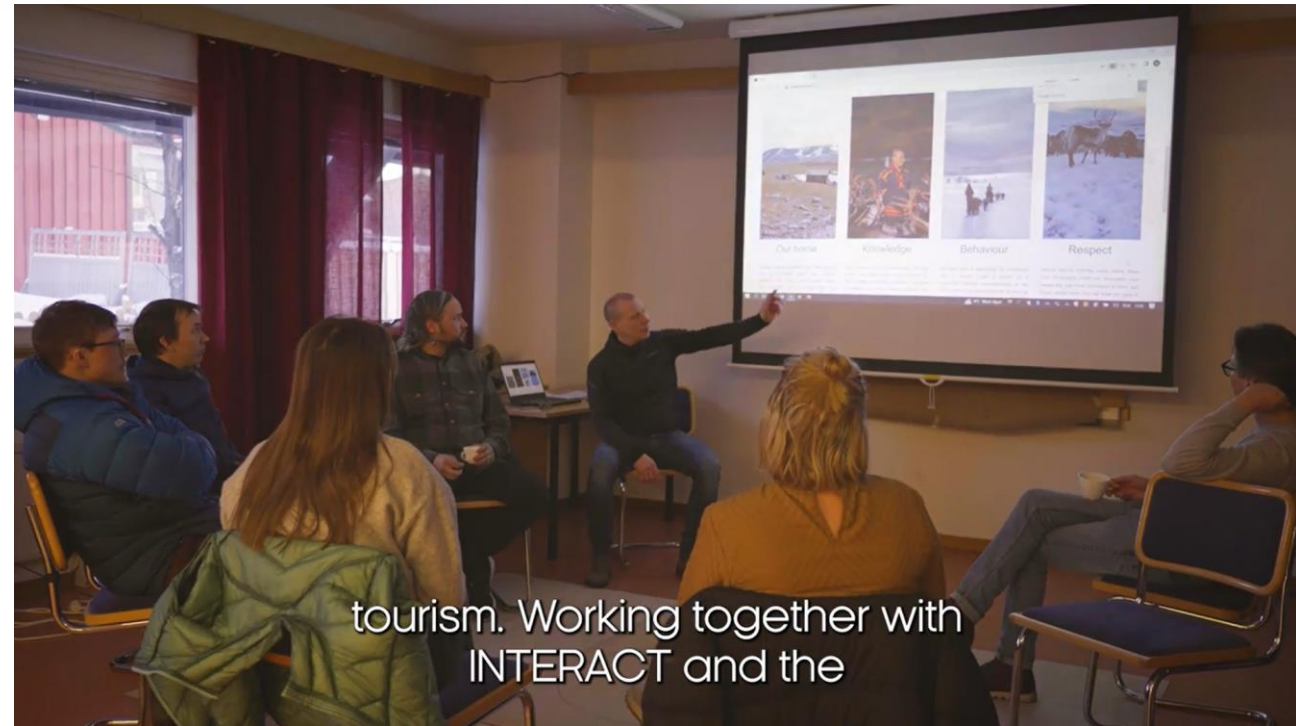
- Deliverable D7.3
- A film entitled “Disappearing homes” showing two examples of impacts of climate change on northern communities from opposite sides of the Arctic (Canada and Siberia).
- Includes in Canada how scientific research and Indigenous knowledge are working together to monitor the effects of permafrost thaw on coastal erosion at one village under threat. In Siberia, Indigenous Peoples are seeing a change in biodiversity and the species they depend on but also shows a resilient response such as using the longer growing season to grow fruit and vegetables in the Arctic.



Progress made during the last year – Task 7.1

Increased public awareness of Arctic environmental change and its global implications (Lead: USFD, sub-contract to BBC)

- Deliverable D7.4
- A film entitled “The cost of Arctic tourism” showing how climate change is encouraging winter tourists to turn from the south to the north.
- Include how unsympathetic tourism can lead to increased carbon emissions, spread of invasive species, disturbance to reindeer herds and disturbance to local and Indigenous communities. Indigenous presenters show us however how local communities can benefit from tourism and how Sami reindeer herders can collaborate to produce guidelines to educate tour operators and their tourists



Progress made during the last year – Task 7.1

Increased public awareness of Arctic environmental change and its global implications (Lead: USFD, sub-contract to BBC)

**MOVIE
PREMIERE**

Arctic Circle conference
Friday 20th of September 2023
8PM
You will get popcorn!!



Progress made during the last year – Task 7.2

Networking and communication activities with teachers and schools (Lead: IGF-PAS)

7 newsletters (PL+EN) with invitation to polar lessons and information on educational materials were sent to **2454 STEM teachers** from 60 countries (02.11.2022; 05.12.2022; 03.01.2023; 07.03.2023; 05.04.2023; 12.06.2023; 05.09.2023)

Dear Teachers!

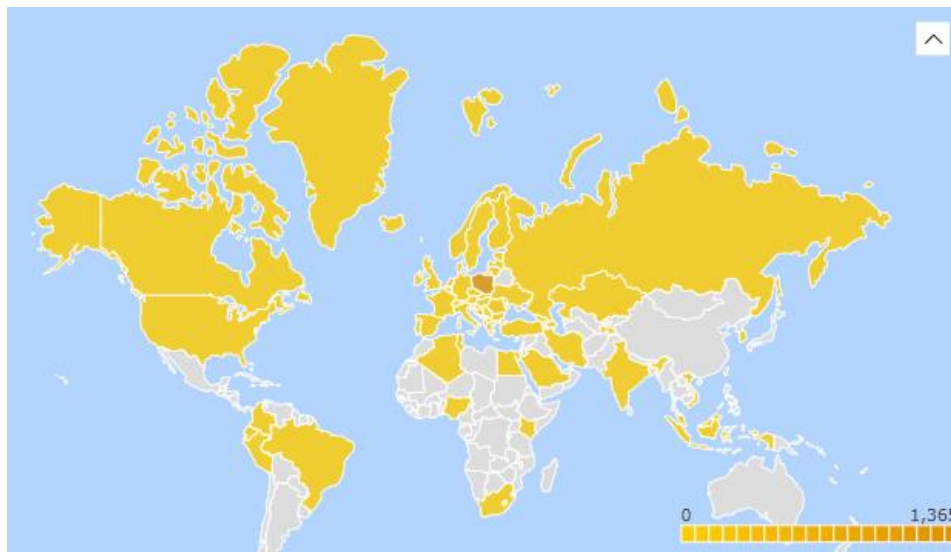
Be invited to the online lessons about the Arctic and polar research.

Find out the educational offer in December:

6 Dec at 8 UTC: [Polar bear - the king of the Arctic](#)

7 Dec at 9 UTC: [the Unknown world beneath our feet](#)

9 Dec at 8 UTC: [Written in the Arctic: paleoclimatology](#)



Progress made during the last year – Task 7.2

Networking and communication activities with teachers and schools (Lead: IGF-PAS)

4TH SCIENTIX CONFERENCE: 18-19 NOV. 2022



The 4th Scientix International Conference gathered ca. 1.200 teachers, educators, policymakers, science education researchers and project managers attended the conference.

INTERACT was shown as one of the 15 STEM projects presented in plenary sessions.



Progress made during the last year – Task 7.3

Promotion of polar issues by providing educational resources to schools (Lead: IGF-PAS)

SYMPOZJUM POLARNE - BIS POLAR SYMPOSIUM - BIS

IO PAN, Sopot, 19.05.2023

INTERACT educational offer was also presented at POLAR SYMPOSIUM-BIS in Poland in May 2023 (poster).

Obecnie IGF PAN prowadzi działania edukacyjne o tematyce polarniej w ramach projektu INTERACT. INTERACT oferuje scenariusze łatwych do wykonania eksperymentów dla szkół podstawowych oraz rozbudowane, zawierające różnorodne materiały zestawy narzędzi dla szkół ponadpodstawowych. Dodatkową ofertą dla szkół jest seria lekcji online poświęconych Arktyce i współczesnym badaniom polarnym.



www.eu-interact.eu

Europejski projekt INTERACT (H2020) jest siecią 70 stacji polarnych w Arktyce, subarktyce i w obszarach alpejskich. Komponent edukacyjny i informacyjny INTERACT ma na celu promowanie zagadnień związanych z Arktyką i środowiskiem w edukacji w celu zwiększenia świadomości uczniów na temat globalnych wyzwań, w tym zmiany klimatu.

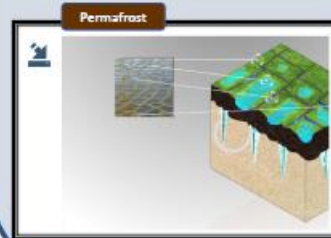


Pakiety edukacyjne

Rozbudowane pakiety edukacyjne dla szkół średnich i starszych klas szkół podstawowych przygotowane przez Instytut Geofizyki PAN



- Elementy każdego pakietu:
- Wstęp
 - 5 pojęć do zapamiętania i słowniczek
 - Mapa myśli
 - Materiały dla nauczycieli, plan lekcji
 - Karty pracy dla uczniów
 - Krzyżówki, quizy
 - Multimedia
 - Nagranie wykładu eksperta
 - Scenariusz doświadczenia



Scenariusze doświadczeń

dla szkół podstawowych przygotowane przez INTERACT

Lekcje online

65 lekcji online po polsku i angielsku dla szkół z 60 krajów



Stories of Arctic Science

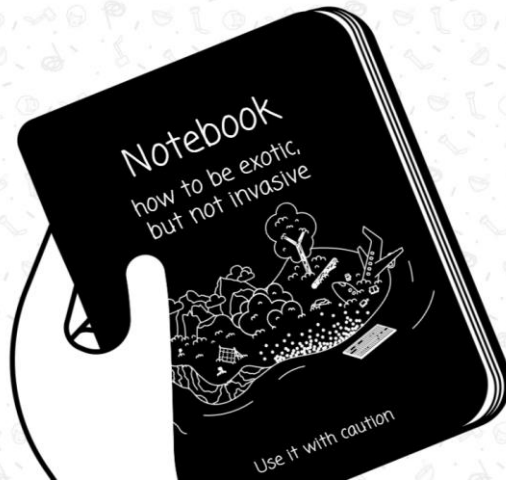
opowieści grup badawczych w tradycyjnej (książkowej) oraz interaktywnej wersji

Progress made during the last year – Task 7.3

Promotion of polar issues by providing educational resources to schools (Lead: IGF-PAS)

Invasive species toolkit

- Invasive species will increase in the Arctic due to climate change and accidental/deliberate release of specimens
- Toolkit builds on several lectures that introduces pupils to invasive species concept as well as common invasive species in the northern hemisphere



Stranded on

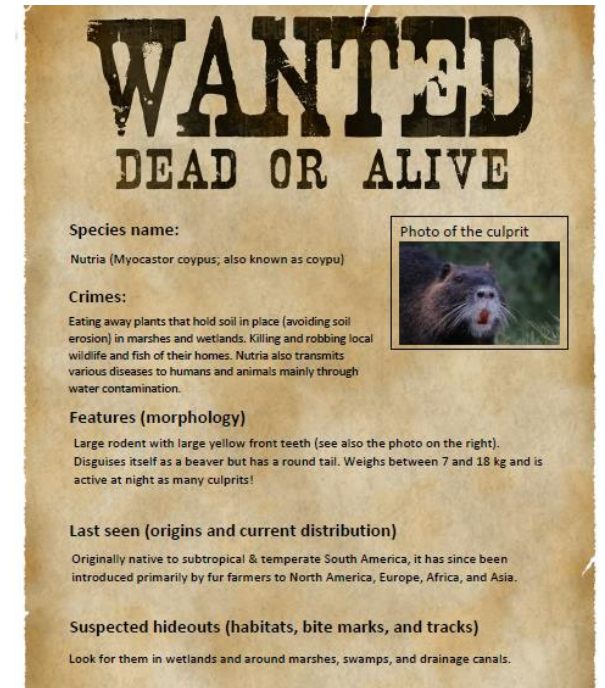


a desert island



start your journey home

<https://view.genial.ly/5ff5b373c217200ce77c9fb1>




Progress made during the last year – Task 7.3


Promotion of polar issues by providing educational resources to schools (Lead: IGF-PAS)

The changing Arctic toolkit

- The toolkit will be dedicated to the Arctic amplification, decreasing sea ice extent and sensitivity of the Arctic to the climate change
- Toolkit will build on lectures, external animation and tasks for students + guidelines for teachers

Fill In The Blanks

 less slows down smaller negative decreases

 Ice has **higher** albedo than water. It means that ice reflects **more** sun radiation than water.

UNIVERSITY OF TWENTE

When sea ice melts more than usually, there is more open water and **more** sun radiation is absorbed. The temperature of the ocean **increases**. It **accelerates** melting of ice.

Sea Ice Extent, 15 Jul 2020



Progress made during the last year – Task 7.3

Promotion of polar issues by providing educational resources to schools (Lead: IGF-PAS)

Pollution in the Arctic toolkit

- Short and long range transport of pollutants, plastic in the Arctic
- Toolkit will build on lecture, multimedia, research databases and worksheet with tasks for students + guidelines for teachers



Progress made during the last year – Task 7.4

Online lessons for secondary schools (Lead: IGF-PAS)

- 60 online lessons to be conducted by the end of the year
- **57 lessons** organised so far
- recordings from the lessons available on the INTERACT website




Requirements from others

- Share invitation for free online lessons with teachers from your country

19 Sep 08:00 UTC

Lesson instructor




GABRIELA WAGNER

🇬🇧 INTERACT: CAN THE...
Reindeer are incredibly adapted to withstand snow and cold. They dig through snow and find enough food to survive long winters. But this is changing due to climate change. Summers are also getting...

READ MORE

Available places: 96

27 Sep 08:00 UTC




🇬🇧 INTERACT: Why is pe...
You will learn what permafrost is and where it occurs. Next, we will dive into the topic of thawing permafrost and how it affects climate and finally we will find the answer: why is thawing permafrost dangerous? This lessons will help to understand permafrost related processes.

10 Oct 08:00 UTC



🇬🇧 INTERACT: SURVIVI...
Have you always wondered how animals can live and even thrive in the extreme climates of the Arctic? If they freeze and feel miserable during winter, or if they actually feel as comfortable as we do in our own living-room? In this webinar, you will get the answers, and learn about the...

24 Oct 08:00 UTC



🇬🇧 INTERACT: WHAT O...
About half of your body consists of microbiota, which are bacteria, protists, viruses, and fungi! They are crucial to life - even in the Arctic! In this webinar you will learn how the microorganisms affect immunity, hormones and even the behaviour of animals. We will use fish as our main stu...

Ways forward

- 3 newsletters for teachers
- Finalising two more toolkits
- **Del 7.5 *Report on educational tool-kits*** (postponed to M48) to be prepared by December ca. 10 online lessons to be organised by the end of the year
- postproduction of recordings from lessons – to be published on the INTERACT YouTube and website
- **Del. 7.6 *List of conducted online lessons*** to be prepared by December