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Summary and Goals

The **ADAPTCHANGE** bilateral initiative established a network of institutions involved in research and outreach from Portugal, Iceland and Norway to develop a strategic cooperation program built on three complementary pillars:

- i) technical cooperation – implementation of a research project aiming to assess the mechanisms adaptation of different species to rapid environmental change;
- ii) capacity building - organization of technical workshops on topics of interest to all partners;
- iii) program for science dissemination – sharing good practices on effective science dissemination initiatives in schools and joint organization of a showcase about adaptation to climate change for kids particularly focused on protecting the biodiversity living in our oceans.

ADAPTCHANGE will not only contribute to implement more effective conservation measures but also to increase the scientific literacy of local communities about our oceans and inspire them to actively engage in contending one of major societal challenge of our times (i.e. climate change).

Main partners and Teams

Portugal





CIIMAR, Centro Interdisciplinar de Investigação Marinha e Ambiental, Matosinhos, Porto- Leading institution

- Rui Faria, Cátia Monteiro, André Pires, Filipe Casto



Escola Ciência Viva da Camara Municipal de Gaia (Parque Biológico de Gaia)- Partner institution

- Francisco Saraiva, Rita Peixoto

Iceland



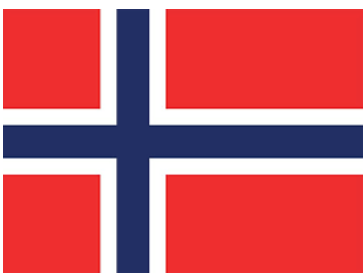
Team



University of Iceland, Reykjavík- Partner institution

- Snæbjörn Plásson

Norway



Team

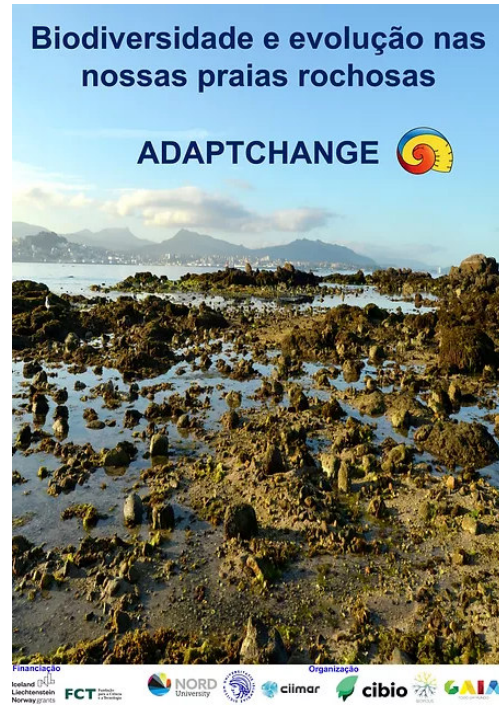


Nord University, Bodo, Norway Partner institution

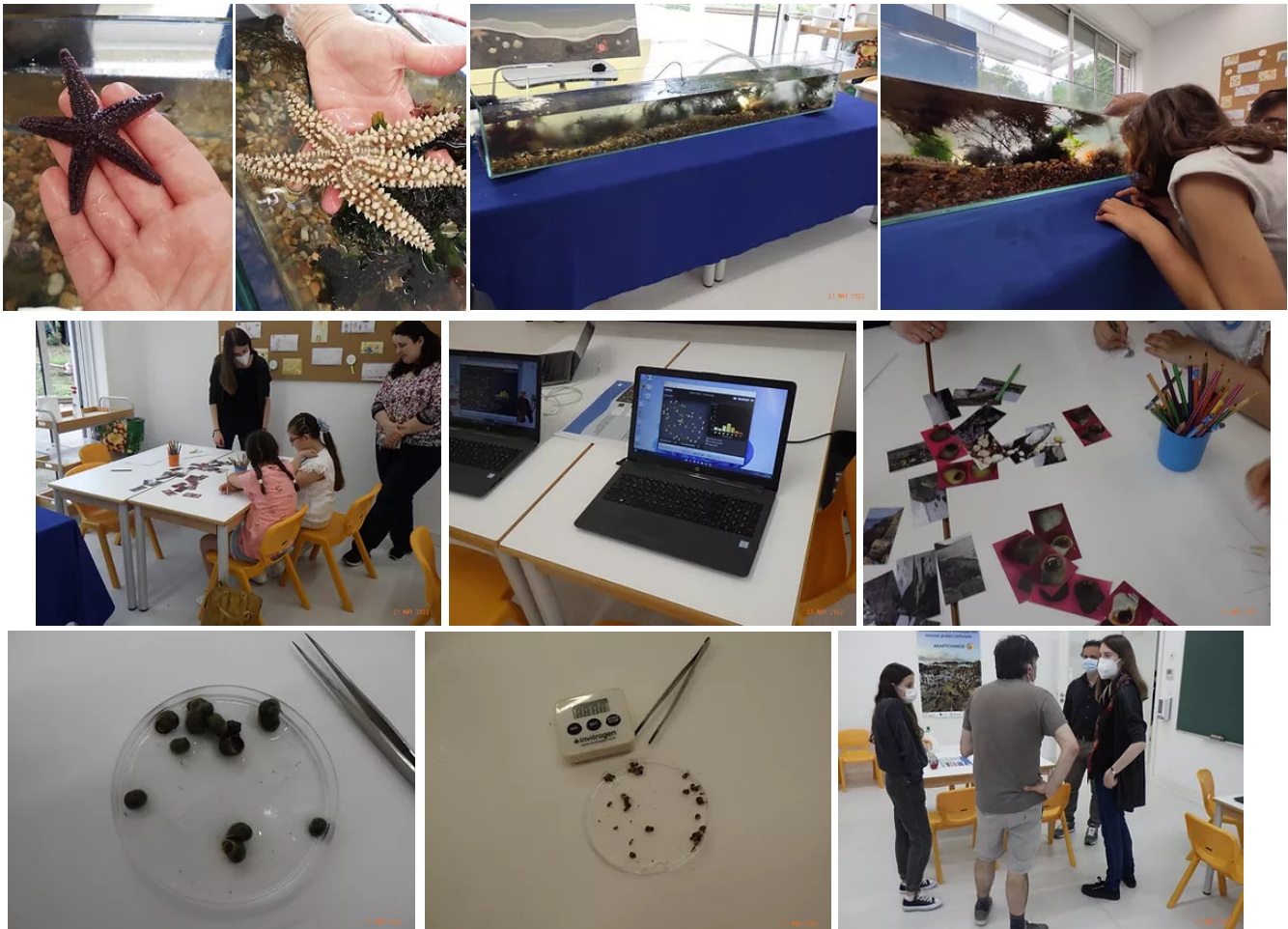
- Joost Raeymakers, Anja Westram, Ana Peris

Main activities

7. Showcase/Workshop for children at Parque Biológico de Gaia, Escola de Ciência Viva, Gaia, May 2022 (Day of Biodiversity celebrations). With the participation of two Portuguese teams (CIMAR: Rui Faria, Francisco Arenas, Sabrina Carli and André Pires; and from the Escola de Ciência Viva do Parque Biológico de Gaia: Francisco Saraiva, Rita Peixoto et al), and the Norwegian team (Ana Peris).



Flyer, poster and pictures from the different stations





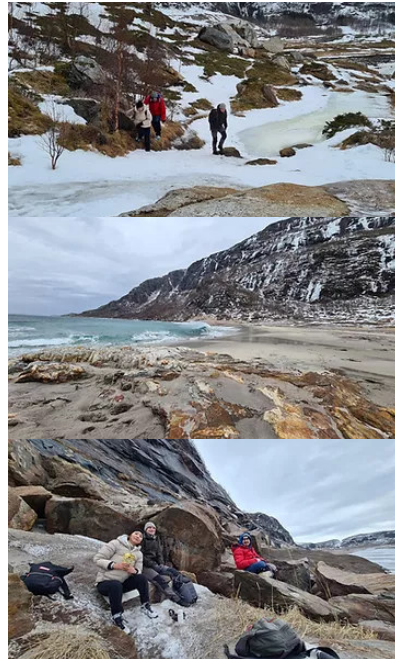
The first station was showing live biodiversity on the Portuguese shores; the second, an experiment about ocean acidification due to Co2 emissions, and consequences for shelled organisms; the third, an experiment to understand which snails were quicker coming out of their shells, once poke; the fourth, was a memory card game with pictures of marine snails and ecosystems, with the possibility of painting the inside of a snail; the fifth, was a shell cracker to test which snails were more resistant to breakage; and sixth, a station where participants could play a game about the evolution of snails under crab predation.

6. Internship of a Master student from the Portuguese team (André Pires) at Nord University, BODO, Norway, February-March 2022



Participation in the course and field trips during his internship





5. Workshop in Genomics organized by the Norwegian partners (Joost Raeymakers, Anja Westram and Ana Peris) at the Nord University, BODO, February 2022

NORD University

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NORBIS

Population Genomics @NORD
PhD course, 21-25 February 2022

Faculty of Biosciences & Aquaculture
Nord University, Bodø, Norway

Workshop organized within the framework of ADAPTCHANGE.

Schedule:

Time slot	Monday	Tuesday	Wednesday	Thursday	Friday
Room	1111	1111	1111	1111	1111
09:00-10:30	Session 1 (L)	Session 3 (IL)	Session 5 (L)	Session 7 (L)	Session 9 (IL)
10:30-12:00	Session 1 (P)	Session 3 (P)	Session 5 (P)	Session 7 (P)	Session 9 (P)
12:00-13:00	Lunch	Lunch	Lunch	Lunch	Lunch
13:00-14:30	Session 2 (IL)	Session 4 (L)	Session 6 (IL)	Session 8 (L)	Session 10 (L)
14:30-15:00	Break	Break	Break	Break	Break

Fantastic list of instructors and 10 sections!

- Session 1: welcome, practicalities, course introduction (JR)
- Session 2: introduction to command line (unix), data formats, data conversion (MJ/AJ)
- Session 3: introduction to R (AJ/MJ)
- Session 4: population genetic theory (OG/ET)
- Session 5: analysis of population structure (OG/IS)
- Session 6: population history, demographic inference, coalescence (ET/MR)
- Session 7: genomic basis of adaptive evolution & inference of selection (ET/MR/OG)
- Session 8: admixture and introgression/hybridization (MR/IS)
- Session 9: landscape genomics, gene-environment correlations (KS/AP)
- Session 10: Open lab and introduction to the home exam (JR)

Faculty

Course coordination:

Joost Raeymaekers (JR)

Invited lecturers:

Ana Peris (AP)

Mark Ravinet (MR)

Emiliano Trucchi (ET)

Oscar Gaggiotti (OG)

Bart Peeters (BP)

Kostas Sagonas (KS)

Anja Westram (AW)

Lars Martin Jakt (MJ)

Irina Smolina (IS)

Alexander Jüterbock (AJ)

Enthusiastic Environment



Final photo with participants and organizers!



4. Showcase for kids in a daily nursery- Gondomar, October 2021



Within the framework of ADAPTCCHANGE, members of the Portuguese team presenting problems related with ocean acidification, pollution and climate change. Children were able to see the effect of CO2 deposition in the ocean by observing a PH colour change.



3. Participation on the European Researchers Night - Porto, September 2021



Stand where we presented live snails of the target species, a video about speciation and the Adaptchange project



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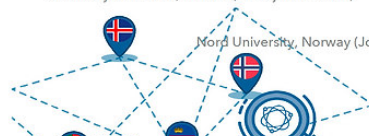
European Economic Area Financial Mechanism 2014-2021

FUND FOR BILATERAL
RELATIONS

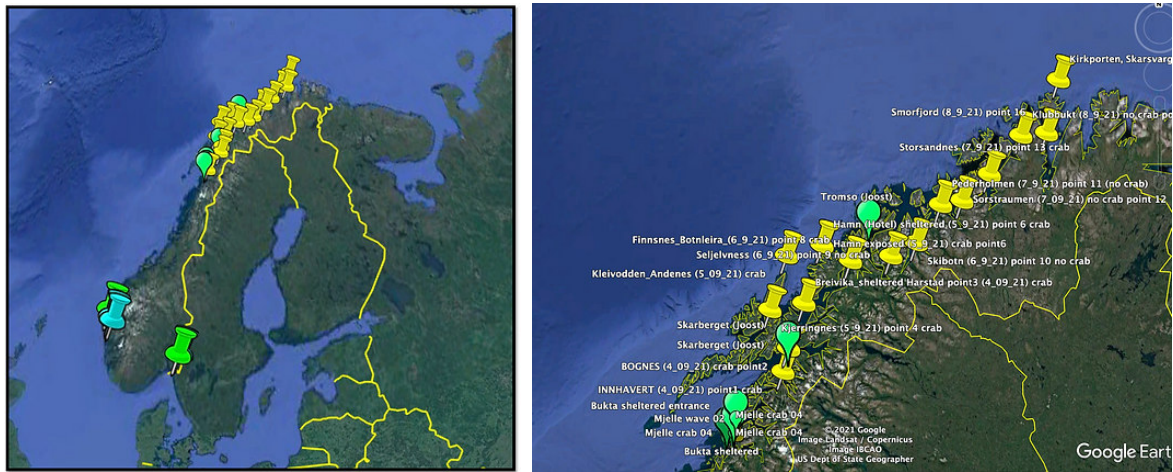
Adaptchange

University of Iceland, Iceland (Snæbjörn Pálsson)

Nord University, Norway (Joost Raeymaekers and Anja Westram)



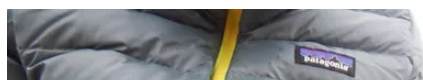
2. Sampling of flat periwinkles in North Norway (with Anja Westram, Joost Rayemakers and Cátia Monteiro), September 2021



Map and pictures from sample sites from where we collected flat periwinkles within the framework of this project (yellow pins)



The target species and its main predator

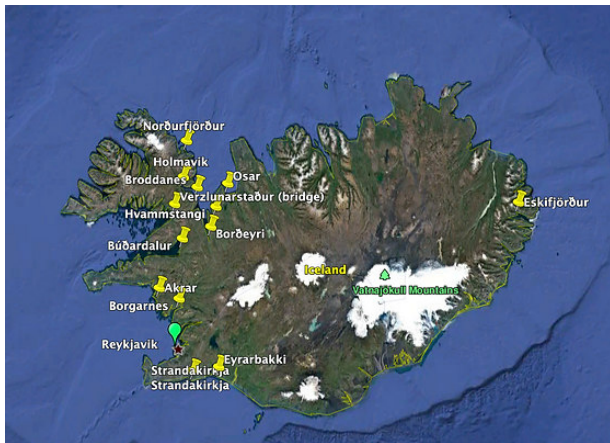




Seminar at Nord University and visit to the extreme north of continental Europe



1. Sampling of flat periwinkles in Iceland (with Snæbjörn Plásson), August 2021



Map and pictures from sample sites from where we collected flat periwinkles





Interesting Icelandic places and landscapes observed during sampling trips

