



# CZECH REPUBLIC



*Arctic Research in the Czech Republic is closely bonded with global and acute requirements of relevant data on climate change. In regard of this, global socioeconomic impact is provided through climate predictions and adaptation and mitigation models. The more direct and visible impact is the open access and background for scientific work in the Polar Regions, provided to the national and international research community.*

Research vessel "Clione"  
(motsailer).  
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## ARCTIC RESEARCH FUNDERS

**Ministry of Education, Youth and Sports.** As a main science-funding national body the Ministry administers a number of funding programmes. Funding is available basically on competitive grounds, where long-term infrastructure projects that provide services for diverse kinds of scientific research areas are evaluated once in 3-4 years and the provision of funding is dependent upon past results. Research activities in the Arctic are part of the large infrastructure project Czech Polar Research Infrastructure (acronym CzechPolar2) that overarches both Arctic and Antarctic research.

## MAJOR ARCTIC RESEARCH INITIATIVES

The Centre for Polar Ecology (CPE) is in the department of the Faculty of Science, University of South Bohemia in České Budějovice. The main purpose of the CPE is ensuring regular university courses in Polar Ecology and similar science topics. In detail, the Centre is focused on extreme environment biology including microbiology-algology, botany, zoology-parasitology, physiology and molecular biology. The second group of topics covered in collaboration institutions dealing with this topics in the Czech Republic including the Polar-Geo-Lab, Department of Geography, Masaryk University consists of physical geography of Arctic regions including climatology, glaciology, geology, geomorphology and hydrology. In addition to the courses, research is valued equally with education, including both biological sciences and Earth sciences.

Czech Polar Research Infrastructure, its Arctic part respectively, is a member of international research bodies and databases, such as the International Arctic Science Committee (IASC) and the University of the Arctic (UARctic), and is closely connected with the Svalbard



Integrated Arctic Earth Observing System (SIOS), Svalbard Science Forum (SSF) and the EU INTERACT project (International Network for Terrestrial Research and Monitoring in the Arctic).

The Czech Polar Research Infrastructure issues the international journal "Czech Polar Reports", which is listed in the Scopus database. Last but not least the Czech Polar Research Infrastructure team provides the scientific background for the Government of the Czech Republic within the Consultative Party Status to the Antarctic Treaty Consultative Meeting and collaborates also with the industrial application sector on testing advanced materials and equipment in the extreme conditions of the Polar Regions.

## ARCTIC RESEARCH INFRASTRUCTURE

Technical equipment consists of instruments and technologies of the life science laboratories of **Centre for Polar Ecology** (CPE in České Budějovice), **The Czech Arctic Josef Svoboda Station** and its research station **JULIUS PAYER HOUSE** (78.22°N, 15.66°E) which is located in Longyearbyen and provides housing for 10 people (up to 20 for short-term accommodation) complete with kitchen and bathroom (including a shower, washer and drier).



← Research station “Julius Payer” house in Longyearbyen.  
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There are two life science laboratories equipped with state-of-the-art optical microscopes, sterile space (laminar flow cabinet, dry heat and infra-red sterilizers), centrifuges, etc.

**The Czech Arctic Josef Svoboda Station** also consists of the field camp NOSTOC and the research vessel CLIONE. **The Czech Polar Research Infrastructure** is well-equipped (considering the financial framework) for basic field and laboratory life science research (Centre for Polar Ecology in České Budějovice). An integrating part of the programme is equipment to provide scientific multi-degree education of students and services from the wide portfolio, e.g. sample collecting, storage and processing; data collecting (i.e. the services provided by the Open Access Data Unit of the research infrastructure); or life science research basic analyses (microscopy, dissection, physiological measurements, manipulation experiments, etc.).

For general logistical purposes, the czech infrastructure has several means of transport in the field: a research vessel, several rubber boats, an off-road car, all-terrain vehicles, snowmobiles, diving equipment, etc.

#### **Field station(s)**

Field camp **NOSTOC FIELD STATION** (78.69°N, 16.46°E, 60 km from Longyearbyen) consists of four modular houses connected by a large tent. It accommodates up to 12 people and includes a kitchen, laboratory, technical facility (energy generators, basic workshop tools), and scuba diving equipment. There are also two additional containers (residential and storage) close to the Pyramiden harbour (78.66°N, 16.39°E, 6 km south of Nostoc) where up to 4 persons may be accommodated.

#### **Vessels**

**RV CLIONE** is a 15-m long motorsailer that can operate around the Svalbard archipelago. It has 3 cabins, a kitchen, upper parlour, and storage space. Up to 12 persons may board the vessel depending on the area of operation (the last three in Svalbard Archipelago, the High Arctic). The infrastructure has a complete array of safety equipment including communication equipment (satellite phones, VHF radios, distress beacons), survival suits, and polar bear defence equipment (rifles and flare guns).

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Point of contact:

**The Centre for Polar Ecology**

(<http://polar.prf.jcu.cz/en/home>)

**Ministry of Education, Youth and Sports**

(<http://www.msmt.cz/?lang=2>)

**Czech Academy of Sciences**

(<http://www.avcr.cz/en/>)

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