

## **POTENTIAL OF METU IN POLAR RESEARCH**

The polar regions are of great scientific and geopolitical importance as they play a key role in shaping global climate change and with having rich natural resources. The Polar Regions are considered as a natural laboratory for conducting research on various subjects ranging from social sciences to engineering. Middle East Technical University, which plays a pioneering role in scientific research, sustainability and innovation in our country and in the world, has academicians who have been working in the polar regions.

### **METU Potential Polar Research Topics**

- Climate, Marine and Earth Sciences
- Materials, construction and mechanical engineering in extreme environments
- Psychology
- Health sciences and biomedical
- Biodiversity, conservation biology
- Robotics and sensor technologies
- International Relations and Law
- Astronomy, electromagnetism and remote sensing
- Energy and Environmental Engineering

Five METU researchers who conducted research at polar regions and collaborated/worked with leading institutions in Europe and the United States clearly show that METU has the necessary experience and capacity to conduct a highly effective polar research in METU. In addition to this, 15 different disciplinary faculty members, undergraduate and graduate students and METU Teknokent firms also want to take part actively in a Polar Research Center which could be established in our university.

### **Experience and Contributions of METU Institute of Marine Sciences**

- Organizing TUARK Meetings and Developing Science Strategy
- Representation of Turkey to the Antarctic Commission of the United Nations
- Life cycle of Antarctic Krill populations
- Changes in the Southern Ocean water mass
- Food resources of Adelie penguins in winter
- Ocean acidification and its effect on Antarctica biodiversity
- Past and present responses of arctic lakes and aquatic ecosystems under changing climatic conditions
- Bio-optic properties of the Arctic Lena Delta and carbon cycle

**POLAR EXPLORERS OF METU INSTITUTE OF MARINE SCIENCES**



*Photo 1: Barış Salihoğlu (Antarctica)*



*Photo 2: Meltem Ok (Antarctica)*



*Photo 3: Bettina Fach Salihoğlu (Antarctica)*



*Photo 5: Hasan Örek (Lena Deltası Siberia)*



*Photo 4: Korhan Özkan (Greenland)*