

“ANTARCTIC SCIENCE PROGRAM” WORKSHOP

2-3 June 2014



Deutsch-Türkisches Jahr der
Forschung, Bildung und Innovation 2014
Türk-Alman Araştırma,
Eğitim ve İnovasyon Yılı 2014

Sponsored by

TÜBİTAK

Istanbul Technical University



Organized by

**MaRS (Maritime/Marine Remote Sensing) Lab - Maritime Faculty -
Istanbul Technical University (ITU)
Institute of Marine Sciences - Middle East Technical University (METU)
Fisheries Faculty, Istanbul University (IU)**



Contributed by

**Turkish Marine Research Foundation
Faculty of Mines, Istanbul Technical University
The Institute of Marine Sciences and Technology, Dokuz Eylül University
Alfred Wegener Institute, Polar and Marine Research
Environmental Meteorology Department, University of Trier
Integrated Climate Data Center, University of Hamburg**



Date : 2 -3 June 2014

**Place: Istanbul Technical University
Maslak Campus
Faculty of Mines, "İhsan Ketin Conference Room"**

PRESENTERS (Alphabetic order by presenter name)

**Dr. Bettina Fach
Institute of Marine Sciences
Middle East Technical University**

**Prof. Bettina Meyer
Antarctic krill group
Polar Biological Oceanography
Alfred Wegener Institute, Polar and Marine Research**

**Dr. Burcu Ozsoy-Cicek
MaRS (Maritime/Marine Remote Sensing) Lab.
Maritime Faculty
Istanbul Technical University**

**Dr. Gert König-Langlo
Climate Science/Polar Meteorology
Meteorological long term observations
Alfred Wegener Institute, Polar and Marine Research**

**Dr. Magnus Lucassen
Integrative Ecophysiology
Molecular Physiology/Functional Genomics
Alfred Wegener Institute, Polar and Marine Research**

**Dr. Noyan Yilmaz
Institute of Marine Sciences
Istanbul University**

**Dr. Sascha Willmes
Dpt. Environmental Meteorology
University of Trier**

**Dr. Sinan Husrevoglu
Environment Institute
TUBITAK - MAM**

**Dr. Stefan Kern
Integrated Climate Data Center - ICDC
University of Hamburg**

**Dr. Ulrich Freier
SC - Scientific Consulting
Professional Solutions for Polar and Marine Science**

Monday, 2 June 2014

8:30-9:30 Registration

9:30-10:00 Opening Remarks

Prof. Nil Güler, Maritime Faculty – Istanbul Technical University

Prof. Ahmet Kideys, Inst. of Marine Sciences - Middle East Technical University

10:00-12:15 First Session: German Polar Science Components/Discipline

(Session chair: Prof. Bayram Ozturk)

The meteorological observatories from Neumayer and Polarstern - Operation and weather forecast

Dr. Gert König-Langlo

Understanding Ecosystem Shifts by focusing on Key Species and Process Studies

Prof. Bettina Meyer

Adaptability and vulnerability of Antarctic fish to climate factors: Integrating molecular functions into physiological fitness

Dr. Magnus Lucassen

12:15-14:00 Lunch Break

14:00-15:30 Second Session: German Polar Science Components/Discipline

(Session chair: Dr. Sinan Husrevoglu)

An Introduction to satellite remote sensing of polar regions

Dr. Sascha Willmes

The Integrated Climate Data Center (ICDC) at University of Hamburg: A good address for quality-controlled Earth observation data from remote sensing and in-situ measurements

Dr. Stefan Kern

15:30-16:00 Coffee break

16:00-17:00 Third Session: German Polar Science Components/Discipline
(Session chair: Dr. Noyan Yilmaz)

Spatiotemporal variabilites of sea-ice microwave characteristics in the Antarctic
(Scatterometer, TSX, passive MW, MW emissivities)

Dr. Sascha Willmes

Remote sensing of Antarctic sea ice concentration and drift

Dr. Stefan Kern

17:00 Closing the first day of the workshop

Tuesday, 3 June 2014

09:00-10:30 First session: German Polar Science Components/Discipline
(Session chair: Prof. Ahmet Kideys)

The meteorological observatories from Neumayer and Polarstern - Research results

Dr. Gert König-Langlo

Dive operations in Antarctic Winter 2013

Dr. Ulrich Freier - Prof. Bettina Meyer - Dr. Noyan Yilmaz

10:30-11:00 Coffee Break

11:00-12:30 Second session: German Polar Science Components/Discipline
(Session chair: Dr. Bettina Fach)

Snow on Antarctic sea ice

Dr. Sascha Willmes

Antarctic sea ice thickness: Advantages and limitations of remote sensing

Dr. Stefan Kern

12:30-14:00 Lunch Break

14:00-14:45 Third Session: Turkish Polar Program components/disciplines
(Session chair: Prof. Gunay Cifci)

Overall introduction of the polar program

Dr. Bettina Fach

Modelling the seasonal sea ice cycle in the Ross Sea, Antarctica

Dr. Sinan Husrevoglu

ODEN Cruise, Antarctic expedition – Remote Sensing Applications

Dr. Burcu Ozsoy-Cicek

14:45-15:15 Coffee Break

15:15-17:00 Fourth Session: Discussion and Brainstorming
(Session chair: Prof. Bettina Meyer)

Turkish-German cooperation on Antarctica and project proposals – I
Potential cooperation implemented in the short term

Turkish-German cooperation on Antarctica and project proposals – II
Potential cooperation implemented in the long term

17:00 Closing