

POLAND AND THE ARCTIC

Programme of the Polish Sessions at Arctic Circle Assembly 2017



ARCTIC CIRCLE ASSEMBLY 2017

General programme of the Polish Country Session convened by the Ministry of Science and Higher Education of the Republic of Poland:

PLENARY SESSION: "Poland and the Arctic":

Sunday, October 15, 09:45 – 10:30

BREAKOUT SESSION: "The Arctic and polar research as a Vehicle for STEM

& Environmental Education", Sunday, October 15, 12:45 – 13:45

 $\textbf{BREAKOUT SESSION: "Polish Exploration of the Changing Arctic"} \ - \ \text{film session}$

Saturday, October 14, 20:00 – 21:00

BREAKOUT SESSION: "From Long Tradition to Modern Studies of the Arctic System"

- an exhibition on history and current directions of Polish research in the Arctic *Exhibition location:* Sky Staircase, Harpa Second-Fourth Floor

Find out more about Polish research in the Arctic and play online quiz! (more details on page 15)

Organizers:



e tion Ministry of Science and Higher Education of the Republic of Poland



Ministry of Foreign Affairs of the Republic of Poland



Polish Polar Consortium and University of Silesia - leader of the Consortium



Centre for Polar Studies, Poland



Committee on Polar Research, Polish Academy of Sciences





"POLAND AND THE ARCTIC"

Time: Sunday, October 15, 09:45 – 10:30

Chair: Małgorzata Śmieszek, Arctic Centre, University of Lapland, Rovaniemi



- 1. From Long Tradition to Modern Studies of the Arctic System. An Introduction Prof. Jacek Adam Jania Chair, Committee on Polar Research, Polish Academy of Sciences
- Strategy of Polish Research Development in the Arctic
 Prof. Łukasz Szumowski, Under-Secretary of State, Ministry of Science and Higher Education
- 3. Polish Arctic Policy an AC Observer State Perspective Ambassador Andrzej Misztal
- Monitoring of Ocean, Land and Climate Changes in the Warming Arctic
 Dr. Agnieszka Beszczyńska-Möller, Institute of Oceanology, Polish Academy of Sciences
- Environmental Aspects of the Melting Arctic
 Prof. Jan Marcin Węsławski Institute of Oceanology, Polish Academy of Sciences

Speakers' bios:



Prof. Jacek Adam Jania: glaciologist and physical geographer working in the Arctic since 1972. Professor at the Faculty of Earth Sciences, University of Silesia; Head of the Centre for Polar Studies; Chair of the Committee on Polar Research, Polish Academy of Sciences; Member of the European Polar Board and former Member of the IASC Council (2006-2017). Member of many scientific committees and societies. He graduated from the University of Wroclaw in 1973 (M.Sc. in geography); Ph.D. in 1978; Dr. habilitatus degree (tenure at the university) in 1988 and the title of Professor in 1996. Main focus of his research is response of polythermal glaciers to climate changes and dynamics of tidewater glaciers. He was coordinator and PI in number of research projects, published 3 books and more than 80 peer reviewed papers. Supervisor of 15 completed Ph.D. dissertations. He was Dean of the Faculty of Earth Sciences and Vice-President of the University of Silesia. He received number of awards, i.a. Medal of the Polish Geographical Society and the "Bene merito" honorary distinction of the Minister of Foreign Affairs, Poland.





Prof. Łukasz Szumowski: cardiologist and professor of medical sciences, under-secretary of state for science policy in the Ministry of Science and Higher Education. He is an author or co-author of over 150 national and internationalworks.

He has managed the Department of Arrhythmia in the Institute of Cardiology in Warsaw where he has been a member of the Scientific Council for many years. He has performed numerous duties in the European and Polish Scientific Societies. He has been a member of among others: European Heart Rhythm Association Training Fellowships Committee, Innovation Committee as well as the Heart Rhythm Section in the Polish Society for Cardiology Board. He belongs to the European and Polish Society of Cardiology.

He has cooperated with the Kresy w Potrzebie — Polacy Polakom [the Borderlands in need-Poles for Poles] Foundation which takes care of Polish citizens left outside the eastern Polish border, particularly children from Grodno and Wołkowysk. He has also cooperated with the Serce dla Arytmii [Heart for Arrhythmia] Foundation which promotes knowledge among patients and doctors in the scope of arrhythmia prevention, diagnostics and treatment as well as with the Serce dla Arytmii Patient Association. He lives in Warsaw with his wife and four children. He is engaged in sailing and skiing for pleasure. In his free time he plays the piano and guitar.

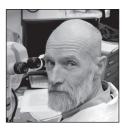


Andrzej Misztal: lawyer (specialized in Public International Law), diplomat and Titular Ambassador, Director of the Legal and Treaty Department in the Ministry of Foreign Affairs. He has worked on the international law, legal and treaty matters since 1992.

He has served the following international functions: Ambassador for the Legal Affairs of the Arctic and the Antarctic; Legal Adviser of Poland to the United Nations and representative of Poland in the 6th Committee of the United Nations General Assembly; representative of Poland in the Committee of Legal Advisers on Public International Law of the Council of Europe as well as Head of Delegation of Poland for the Antarctic Treaty Consultative Meeting (Brussels, Brasilia, Sofia, Santiago de Chile) and Delegate of Poland to the Legal Subcommittee of COPUOS (UN).



Dr. Agnieszka Beszczyńska-Möller: physical oceanographer with 25 years of experience in polar regions, leader of the IOPAN ObservationalOceanographyGroup.Extensiveexpertiseinoceanographic moorings, ship-borne measurements, floats and gliders. In 2003-2013 responsible for the moored array and glider program in Fram Strait. 30+ Arctic expeditions on German, Norwegian and Polish research vessels and icebreakers. Member of ICES Ocean Hydrography Working Group, editor of ICES Report on Ocean Climate. Polish representative in SAON Board. Participant and PI in several international projects (VEINS, ASOF-N, DAMOCLES IP, ACOBAR, GROOM, SIOS, UNDER-ICE, AWAKE2, NAtMAP). Coordinator of the Polish-Norwegian project PAVE (2013-2016). Leader of WP3 'Multidisciplinary in situ observing systems' and Executive Board member in the H2020 project Integrated Arctic Observation System INTAROS (2016-2020).

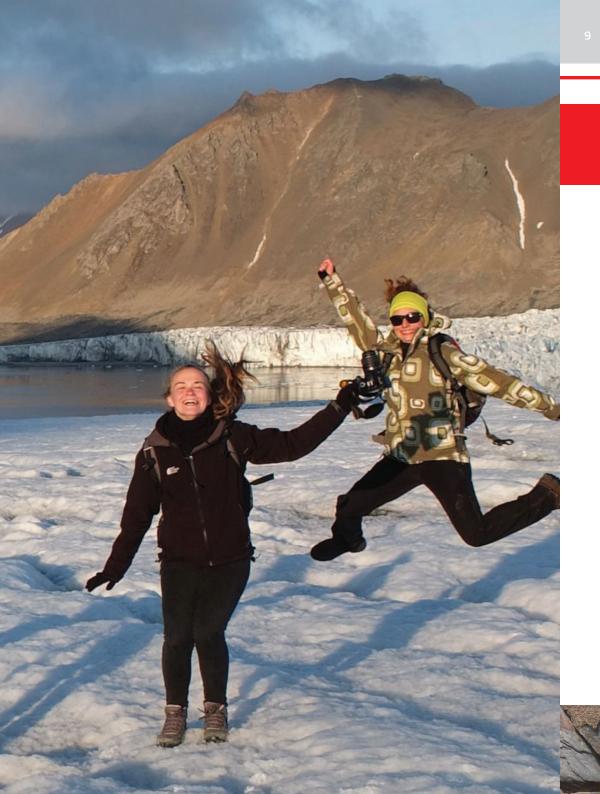


Prof. Jan Marcin Węsławski: marine biologist, with over 40 years experience in polar research. Special interest in coastal and fjordic studies - with field work on Svalbard, Greenland, Ellesmere Island and Franz Josef Land. Participant in numerous international projects on marine biodiversity, leader of major national project GAME (Growing of Arctic Marine Ecosystem) and Norwegian- Polish GLAERE (Glaciers as Arctic Ecosystem Refugia). Coauthor of +100 peer reviewed papers cited over 2500 times, supervisor of 15 completed phD dissertations. Editorial board member of Polar Biology, Marine Biodiversity, Polish Polar Research and Oceanologia. Leader of Marine Ecology Department at Institute of Oceanology Polish Academy of Sciences in Sopot.



Małgorzata (Gosia) Śmieszek: is a researcher at the Arctic Centre, University of Lapland in Finland. She is a political scientist and a fellow of the International Arctic Science Committee (IASC) since 2014. In her research she studies international environmental regimes, Arctic governance, questions of science-policy interface and science diplomacy. She has taken part in a number of projects including most recently "Finland's Arctic Council chairmanship in times of increasing uncertainty" for Finland's Prime Minister Office (2016-2018). She is the co-chair of IASC action group on communicating Arctic science to policy-makers.





BREAKOUT SESSION

"THE ARCTIC AND POLAR RESEARCH AS A VEHICLE FOR STEM & ENVIRONMENTAL EDUCATION"



Time: Sunday, October 15, 12:45 – 13:45

Description of the session: Polar Regions represent one of the most interesting natural environments that can engage pupils in topics related to global changes. This session will be dedicated to presentations and discussion on international education initiatives and projects: EDU-ARCTIC Horizon2020 EU Project, ERIS ERASMUS+ Project, INTERACT Horizon2020 Project, which may serve as an international vehicle to encourage pupils to pursue further education in science, technology, engineering and mathematics (STEM), setting them on a path to careers in one of these sectors, or even to become a scientist. During the session educational activities proposed by research centers and institutes will be featured. Moreover science communication issues, crucial for effectiveness of all dissemination activities will be discussed.

List of speakers and speaker topics:

- EDU-ARCTIC program for secondary schools in Europe
 Dr. Agata Goździk, Project Coordinator, Institute of Geophysics PAS, Poland
- 2. Educational resources on the Arctic meeting the expectations of teachers based on INTERACT Horizon2020 survey
 - **Dr. Margareta Johansson**, INTERACT Coordinator, Lund University, Sweden & **Dr. Agata Goździk**, Project Coordinator, Institute of Geophysics PAS, Poland
- 3. Educational activities and opportunities at the Sudurnes Science and Learning Center, SW Iceland
 - **Dr. Halldor Palmar Halldorsson**, director, University of Iceland's Research Center in Sudurnes, Iceland
- 4. Science communication to educators
 Halldór Jóhannsson, Executive Director, Arctic Portal, Iceland
- 5. Exploitation of Polar Research results In School practice project ERIS
 Piotr Stankiewicz, educational methodological expert at Institute of Geophysics PAS, Poland

Speakers' bios:



Dr. Agata Goździk is the Project Coordinator of two European educational initiatives: EDU-ARCTIC H2020 Project and ERIS Erasmus+ Project in the Department of Polar and Marine Research at the Institute of Geophysics, Polish Academy of Sciences. She has worked as coordinator of huge educational initiatives both on national and European levels. Sheworked also as deputy director of the Department of Environmental Education in the Polish Ministry of Environment and as Director of Science Promotion and Dissemination Department in the Polish Academy of Sciences. Currently she leads 2 European projects and Scientix 3 National Contact Point in Poland.



Dr. Halldór Pálmar Halldórsson is an ecotoxicologist with extensive experience in studying effects of pollutants on marine organisms, performing both field and laboratory experiments. He has participated in various national and co-Nordic research projects and environmental assessment programs. His main focus has been on biomarker measurements studying pollution effects on the physiological, cellular and molecular level in marine invertebrates and fish with special emphasis on shipping related pollutants. In recent years he and his students have been investigating a newly introduced crab species (Cancer irroratus) in Iceland. He has supervised graduate students and organized meetings and conferences held in Iceland.



Dr. Margareta Johansson is based at Lund University in Sweden. Margareta has a broad experience in Arctic research, ranging from glaciology/climatology to Arctic ecology and for the last decade she has been focussing on permafrost in a changing climate in northern Sweden. Margareta was a convening lead authors for two chapters (snow and permafrost) of the AMAP SWIPA assessment 2011. She has recently co-lead the terrestrial ecosystem chapter in the Arctic Freshwater Synthesis. Margareta has a great interest in outreach. She is currently the coordinator of an EU Horizon2020 project INTERACT networking 80 research stations in the north (www.eu-interact.org).



Halldór Jóhannsson — executive director of the Arctic Portal, the Gateway to Arctic information and data. Holding a degree in design and planning from UofT in Toronto, Canada, he has vast Arctic and international experience in cooperation, communication, policy, planning and data management. Attended, presented and chaired at numerous international meetings, seminars and conferences on Arctic communication issues. Member of committees of SAON, European Polar Board, International Permafrost Association, UArctic, and projects of relevance: Horizon 2020 EDU-ARCTIC, APPLICATE, NUNATARYUK, EUPolarNet and INTAROS, Global Terrestrial Network on Permafrost - GTN-P, SDWG - Arctic Renewable Energy Atlas and the China-Iceland Aurora Observatory.





Piotr Stankiewicz is a methodological expert in STEM education in the Department of Polar and Marine Research at Institute of Geophysics Polish Academy of Sciences. He collaborates on two international educational projects: "Exploitation of Polar Research results In School practice — ERIS" and "Engaging students in STEM education through Arctic research — EDU-ARCTIC". The leading author of publication "Moving school closer to the world of science — innovative solutions for educational from the EDU-SCIENCE project"; geography and science teacher, co-author of Geography school books in Poland.



FILM SESSION

"POLISH EXPLORATION OF THE CHANGING ARCTIC"

Organizing body: Centre for Polar Studies, Poland

& Polish Polar Consortium

Time: Saturday, October 14, 20:00 - 21:00

Description of the session (60 min.): Poland has a long and rich tradition of Arctic exploration and research. Nowadays, Poles are involved in numerous polar projects, manage a year-round Polish Polar Station Hornsund in Svalbard, operate research vessel s/y Oceania, have well-trained and experienced polar researchers of all career stages (e.g. PhD students of the Centre for Polar Studies) studying crucial problems of the changing Arctic. We would like to show the Polish Arctic exploration from different points of view: tough conditions during fieldwork; daily life in a research station; breathtaking beauty of these cold landscapes that forces researchers and explorers to come back to the High North over and over again...

In the programme:

- 'Poles north of the Arctic Circle Polish Polar Station Hornsund'
 /8 min., directed by Piotr Łepkowski, Centre for Polar Studies, Poland/
- 'Polish Exploration of the Arctic'
 /15 min. directed by Piotr Łepkowski, Centre for Polar Studies, Poland/
- 'A few people at the top of the world'
 /25 min. directed by Robert Pogorzelski, Poland/

List of speakers:

Introductory speeches and discussion moderators:

Prof. Dr. Marek Lewandowski, Head of the Department of Polar Research, Institute of Geophysics, Polish Academy of Sciences, Warsaw

Ms. Anna Temp, PhD student of psychology, University of Edinburgh

Prof. Piotr Głowacki, Associate Professor, Institute of Geophysics, Polish Academy of Sciences, Warsaw

Speakers' bios:



Prof. Marek Lewandowski, titular Professor of Earth Sciences. Head of the Polar and Marine Research Department in the Institute of Geophysics, Polish Academy of Sciences (PAS), formerly Executive Director of the Institute of Geological Sciences, PAS. He served as an expert to several governmental institutions and international bodies. His specialization is paleomagnetism and its applications to geotectonics and paleogeography. He worked in orogenic belts of Europe, from the the Svalbard Caledonides, through the French-Belgium Variscides, to the Alpides in Croatia. Currently he is carrying research on the Precambrian paleogeography of the Kalahari craton. His personal hobby is Art & Science of Syalbard.



Anna Temp, Anna is a final-year PhD student at the University of Edinburgh. Her project is inspired by the work of Peter Suedfeld and Lawrence Palinkas. For her research, she collaborated with the Polish Polar Station Hornsund where she accompanied the 38th expedition. She investigated their emotional well-being, cognitive functions and interviewed them about their experience. Her research can inform us about what makes someone a good polar explorer and how people cope with Arctic exploration.



Prof. Piotr Głowacki. Author and co-author of 4 monograph and 129 publications. Supervisor and Co-supervisor of many national and international projects, among others EU projects: INTAROS, INTERACT II, Edu-Arctic, EU-PolarNet. Since 1997 he has been working for IGF PAS in Warsaw, as a lecturer and supervisor of the work of Polish Polar Station Hornsund at Svalbard. In his scientific work, he conducted polar studies and environmental research in various climatic zones. Participation in Committees and Societies e.g.: Forum of Arctic Research Operators (since 2002), Svalbard Science Forum of the Research Council of Norway (since 2007), Terrestrial Working Group IASC (since 2011), Sustaining Arctic Observing Networks - SAON (since 2014) and others. Co-author and Co-supervisor of the Centre for Polar Studies POLAR-KNOW the Leading National Research Centre 2014-2018).



AN EXHIBITION

"FROM LONG TRADITION TO MODERN STUDIES OF THE ARCTIC SYSTEM"

Organizing body: Centre for Polar Studies, Poland

& Polish Polar Consortium

Exhibition location: Sky Staircase, Harpa Second-Fourth Floor

Time: 13-15 October 2017

Description of the exhibition: In 2017, Poland is celebrating a couple of jubilees related to the Arctic and polar research. The most important are 85th anniversary of the first officially Polish expedition to the Arctic (after restoration of Poland's sovereignty) as part of the 2nd International Polar Year, and 60th anniversary of establishing of the Polish Polar Station in Hornsund, Spitsbergen, Svalbard, operating until now. There are two noticeable features of Polish interest in exploration of the Arctic: (1) pure scientific background with (2) international setting and cooperation during the entire history of our activity. In this context we propose an exhibition of posters presenting briefly the roots of the Polish interest in the Arctic studies and the most important milestones. The exhibition concentrates on examples of recent research results done by members of the Centre for Polar Studies and of the Polish Polar Consortium in cooperation with international partners. The exhibition consists of three parts: (i) history of Polish Arctic expeditions with examples of outcomes, (ii) Polish Arctic research platforms, monitoring sites and illustrations of acquired data bases, (iii) examples of multidisciplinary research done in international cooperation with a special reference to Scandinavian partners.

OUIZ

From Friday to Sunday spend a few minutes during your coffee or lunch break in Polish area, visit our exhibition and win some surprising prizes. We invite you to take part in an online guiz about Polish activity in the Arctic.



Quizes will be played in groups at specific times shown below. You may answer the guestions on your own devices (laptop, tablet or smartphone with Internet connection) while tasks are displayed on a screen. Have a lot of fun!

Friday, 13th of October	Saturday, 14th of October	Sunday, 15th of October
10.05 – 10.15 – quiz 1	11.10 – 11.20 – quiz 1	12.30 – 12.45 – quiz 1
12.30 – 12.45 – quiz 2	12.50 – 13.05 – quiz 2	13.50 – 14.00 – quiz 2
16.05 - 16.15 - quiz 3	15.50 - 16.00 - quiz 3	



ORGANIZERS











Przygotowanie polskich sesji popularnonaukowych na potrzeby ARCTIC CIRCLE ASSEMBLY 2017 - http://www.arcticcircle.org/- zadanie finansowane w ramach umowy nr 964/P-DUN/2017 ze środków Ministra Nauki i Szkolnictwa Wyższego przeznaczonych na działalność upowszechniającą naukę.

Photos: Witek Kaszkin, Liliana Keslinka, Elżbieta Łepkowska, Piotr Łepkowski, Adam Nawrot, Ireneusz Sobota, Waldemar Walczowski, Kacper Wojtysiak, Piotr Zagórski and photo archive of the Polish Polar Station and the EDU-SCIENCE project.