

International Antarctic Conference IAC2009
International Polar Year in Ukraine: results and horizons
May 22-24, 2009 - Kharkiv, Ukraine



Ukrainian Polar Association
V.N. Karazin National University of Kharkiv

with support of the

Ukrainian Scientific Club

and

**Ukrainian team of the USA based Pew Charitable
Trusts' Antarctic Krill Conservation Project**

International Antarctic Conference **IAC2009**

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International Polar Year 2007/8

Program

Organizing Committee and Conference Venue:
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FRIDAY, MAY 22, 2009

- 08:00-09:00** **Participants arrival, registration and accommodation**
- 09:15-09:30** **Opening ceremony. Chair: Dr. Andrei Utevsky**
- 09:30-10:40** **Plenary session. Chair: Dr. Andrei Utevsky**
- 09:30-10:00 P. Convey (*British Antarctic Survey, Natural Environment Research Council, Cambridge, UK*) **Recent human impacts on terrestrial biological processes in the maritime Antarctic**
- 10:00-10:20 G. Milinevsky (*Taras Shevchenko National University of Kyiv, Kyiv, Ukraine*) **Ukraine Antarctic research during International Polar Year 2007/8 - view from outside**
- 10:20-10:40 E. Shcolniy, E. Galich (*Odessa State Ecological University, Odessa, Ukraine*) **Features of large-scale circulation atmospheric processes in western sector of the Southern Hemisphere**
- 10:40-11:10** **Coffee-break**
- 11:10-13:10** **Plenary session. Chair: Dr. Gennadi Milinevsky**
- 11:10-11:30 M. Chesalin (*Institute of Biology of the Southern Seas, Sevastopol, Ukraine*), R. Naveen (*Oceanites, Inc., USA*), H. Lynch (*Dept of Biology, University of Maryland, USA*), I. Bullock (*Tegfan, Caerbwdi, St. David's, United Kingdom*), M. Rider (*US Antarctic Program, Raytheon Polar Services Company, USA*), A. Miller (*Antarctic Ecosystem Research Division, Southwest Fisheries Science Center, USA*), S. Forrest (*World Wildlife Fund, USA*), R. Dagit (*Resource Conservation District of the Santa Monica Mountains, USA*), I. Dykiy (*University of Lviv, Lviv, Ukraine*), V. Timofeyev (*Institute of Biology of the Southern Seas, Sevastopol, Ukraine*) **Long-term changes in populations of seabirds on Petermann Island and surrounding islands near Antarctic Peninsula**
- 11:30-11:50 J. Smykla (*Department of Biodiversity, Institute of Nature Conservation, Polish Academy of Science, Poland and Department of Antarctic Biology, Polish Academy of Sciences, Poland*) **Vegetation patterns around penguin colonies in Admiralty Bay (King George Island, Maritime Antarctic) – a model system for studying ecological hypotheses**

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- 11:50-12:10 A. Koloskov (*Institute of Radio Astronomy, National Academy of Sciences of Ukraine, Kharkiv*) **Internet controlled HF receiver for ionospheric research in Polar Regions**
- 12:10-12:30 V. Lozitsky (*Taras Shevchenko National University of Kyiv, Kyiv, Ukraine*) **Comparison of total ozone column distribution over Northern and Southern high latitudes**
- 12:30-12:50 L. Pshenichnov (*Laboratory of the Southern Ocean Bioresources, YugNIRO, Kerch, Ukraine*) **Influence of icebergs on the structure of fishable part of the spiny icefish (*Chaenodraco wilsoni*) population in the Cosmonaut and Cooperation Seas (Southern Ocean)**
- 12:50-13:10 B. Kapochkin, V. Dolia (*Odessa State Ecological University, Odessa*) **Climatic changes in Antarctica as consequence of geophysical changeability**
- 13:10-14:00 Lunch**
- 14:00-15:45 Plenary session. Chair: Dr. Asen Grytsai**
- 14:00-14:15 B. Kapochkin, V. Dolia (*Odessa State Ecological University, Odessa*) **Climatic changes on the Earth - Antarctica as the planetary indicator**
- 14:15-14:30 T. Danova, O. Prokof'ev (*Odessa State Ecological University, Odessa*) **The troposphere ground layer air temperature dynamics by the antarctic coastal stations observation**
- 14:30-14:45 A. Grytsai, O. Evtushevsky, V. Kravchenko, G. Milinevsky (*Taras Shevchenko National University of Kyiv, Kyiv, Ukraine*), A. Klekociuk (*Australian Antarctic Division, Kingston, Australia*) **Quasi-stationary planetary waves in the late winter Antarctic stratosphere temperature distribution**
- 14:45-15:00 G. Milinevsky, O. Evtushevsky, V. Kravchenko (*Taras Shevchenko National University of Kyiv, Kyiv, Ukraine*) **Winter temperature interannual variations at the Faraday/Vernadsky Antarctic station (1958-2008)**
- 15:15-15:30 V. Bogillo, M. Bazylevska (*Institute of Geological Sciences, National Academy of Sciences, Kiev, Ukraine*) **Volcanic emission of ozone-depleting halogen' species**
- 15:30-15:45 V. Bogillo, M. Bazylevska (*Institute of Geological Sciences, National Academy of Sciences, Kiev, Ukraine*) **The interaction of organochlorine contaminants with snow cover in Antarctica**

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15:45-16:15 **Coffee-break**

16:15-18:00 **Plenary session. Chair: Dr. Evgen Shkolny**

16:15-16:30 R. Kalendar (*MTT/BI Plant Genomics Laboratory, Institute of Biotechnology, Viikki Biocenter, University of Helsinki, Helsinki, Finland*), D. Maidanyuk (*Lugansk National Agrarian University, Lugansk, Ukraine*) **Cloning of cassandra elements from genomes of Antarctic vascular plants**

16:30-16:45 Y. Hihiniak (*The State Scientific and Production Amalgamation «The Scientific and Practical Center for Bioresources», Minsk*), E. Grusov (*Zoological Institute of the Academy of Sciences, Russia*)
Hydrobiological researches of coastal bottom communities in Davis sea (Antarctica)

16:45-17:00 E. Khlon, S. Shnyukov, I. Lazareva, A. Mitrokhin, Yu. Gasanov, V. Morozenko (*Taras Shevchenko National University of Kyiv, Kyiv, Ukraine*) **Geochemical modeling of magmatic and magmatic-hydrothermal systems of Deception Island volcano (West Antarctica): basic data and preliminary results**

17:00-17:15 A. Grytsai (*Taras Shevchenko National University of Kyiv, Kyiv, Ukraine*) **Planetary wave climatology in Antarctic region for 1979-2008 ozone distribution**

17:15-17:30 A. Utevsky, S. Utevsky (*Dept. of Zoology and Animal Ecology, V.N. Karazin Kharkiv National University, Kharkiv, Ukraine*)
Biogeography of fish leeches (hirudinea: piscicolidae) of West Antarctica

17:30-17:45 A. Zalizovski (*Institute of Radio Astronomy, National Academy of Sciences of Ukraine, Kharkiv, Ukraine*) **The role of ozone in the troposphere-to-ionosphere energy transfer**

17:45-18:00 V. Voytenko (*East-Ukrainian National Volodymyr Dal' University, Lugansk, Ukraine*), S. Kovalenok (*Ministry Education and Science of Ukraine, Kyiv, Ukraine*) **The small ice cap disintegration monitoring by the low frequency acoustic emission method**

18:30-21:00 **Dinner and Social**

SATURDAY, MAY 23, 2009

Round table in the framework of IAC2009
"Ukraine and Russia in Antarctica: charges and profits"

Round table topics:

1. To search the joint understanding why Ukraine and Russia need to provide Antarctic research under difficult economic conditions which they are experienced nowadays.
2. To find a conceptual basis for joint position of Ukraine and Russia in research and conservation of the Antarctic environment and marina living resources.

09:00-11:30 **Co-chairs: Dr. Volodymyr Herasymchuk, Dr. Vassily Spiridonov, Dr. Gennadi Milinevsky, Dr. Vyacheslav Bizikov**

Introduction. State-of-art of Antarctic environment problems

09:00-09:10 L. Pshenichnov (*Laboratory of the Southern Ocean Bioresources, YugNIRO, Kerch, Ukraine*) **Current state of the international scientific observation system in Antarctica and the place of Ukrainian scientists**

09:10-09:20 G. Milinevsky (*National Taras Shevchenko University of Kyiv and Antarctic Krill Conservation Project, Kyiv, Ukraine*), I. Mikityuk (*AKCP - Antarctic and Southern Ocean Coalition, Kyiv, Ukraine*). **Climate change influence and tourism impact on Antarctic ecosystem**

09:20-09:40 V. Spiridonov (*P.P. Shirshov Institute of Oceanology of the Russian Academy of Sciences and WWF Russia, Moscow, Russia*). **Biological resources, Antarctic krill and ecosystem based management: introductory notes for the Ukrainian – Russian round table on the Antarctic issues**

09:40-09:55 V. Herasymchuk (*State Committee for Fisheries of Ukraine, Kyiv, Ukraine*) **Krill fishing in Antarctic seas: Ukraine view**

09:55-10:15 V. Bizikov (*Russian Federal Research Institute of Fisheries and Oceanography*) **The role of science in conservation of the Antarctic ecosystem: review of XXXII ATCM results**

10:15-10:20 L. Pshenichnov (*Laboratory of the Southern Ocean Bioresources, YugNIRO, Kerch, Ukraine*), G. Milinevsky (*Taras Shevchenko National University of Kyiv, Kyiv, Ukraine and Antarctic Krill Conservation Project (AKCP) in Ukraine*) **The research project to digitize former Soviet krill fishing expedition data**

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- 10:20-10:30 I. Mikityuk (*Antarctic Krill Conservation Project and Antarctic and Southern Ocean Coalition in Ukraine, Kyiv, Ukraine*) **Priorities for establishing Antarctic krill ecosystem monitoring and management program**
- 10:30-10:40 V. Bryantsev, V. Bibik, V. Timofeev, B. Trotsenko (*Southern Research Institute of Marine Fisheries and Oceanography, Kerch, Ukraine*) **Factors determined the Antarctic krill (*Euphausia superba*) fisheries success in the Atlantic part of the Antarctic region**
- 10:40-11:30 **Discussion on introductory presentations:**
The role of Ukraine and Russia in solving of the global environmental and resource problems related to Antarctic region.
What income the environmental research in Antarctic region could provide to our countries.
Whether or not possible to develop the joint position of Ukraine and Russia in the Antarctic Treaty System.
What we can do for Ukrainian and Russian scientists informal collaboration strengthening in the field of study and conservation of Antarctic ecosystem.
Conclusions
- 11:30-12:00 **Coffee-break**
- 12:00-13:00 **Ukrainian Polar Association Meeting**
- 13:00-14:00 **Lunch**
- 14:00-16:00 **Plenary session. Chair: Dr. Andrej Zalizovsky**
14:00-14:15 O. Futorna (*M.G. Kholodny Institute of Botany NAS of Ukraine, Kyiv, Ukraine*) **Ecological variability of *Deschampsia antarctica* desv. leaf anatomy of two maritime Antarctic regions**
- 14:15-14:30 A. Utevsky, S. Utevsky, G. Shandikov (*V.N. Karazin Kharkiv National University, Kharkiv, Ukraine*), E. Dyky (*Scientific Committee of Ukrainian Diving Federation, Kyiv, Ukraine*) **South Ocean ecosystem monitoring in the framework of Ukrainian Antarctic Program 2011-2020**
- 14:30-14:45 Y. Zanimonskiy (*Institute of Radio Astronomy NAS of Ukraine, Kharkiv, Ukraine*), G. Milinevsky, V. Danylevsky (*Taras Shevchenko National University of Kyiv, Kyiv, Ukraine*) **General features of the sea level records from Antarctic Peninsula and South America tide gauges**

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- 14:45-15:00 I. Parnikoza (*Institute of Molecular Biology and Genetics NAS of Ukraine, Kyiv, Ukraine*), I. Dykiy (*Ivan Franko National University of Lviv, Lviv, Ukraine*), V. Trokhymets, I. Pilkowicz (*Taras Shevchenko National University of Kyiv, Kyiv, Ukraine*) **Larus dominicanus: gardener of maritime Antarctica?**
- 15:00-15:15 S. Korsun (*Institute of Agriculture of the Ukrainian Academy of Agrarian Sciences, Kyiv region, Kyevo-Svyatoshinsky district, town Chabany, Ukraine*), I. Parnikoza (*Institute of Molecular Biology and Genetics NAS of Ukraine, Kyiv, Ukraine*) **Natural and anthropogenic factors influencing soil development at King George Island (Maritime Antarctic)**
- 15:15-15:30 T. Danova, E. Galat (*Odessa State Environmental University, Odessa, Ukraine*) **Climatology of the Northern Hemisphere sea ice**
- 15:30-15:45 V. Danylevsky, V. Ivchenko, G. Milinevsky, A. Grytsai (*Taras Shevchenko National University of Kyiv, Kyiv, Ukraine*), M. Sosonkin (*Main Astronomical Observatory of National Academy of Science of Ukraine, Kyiv, Ukraine*), Ph. Goloub, Z. Li, O. Dubovik (*Laboratoire d'Optique Atmosphérique, Université de Lille, Lille, France*) **Aerosol measurements with CIMEL and MICROTOPS II sunphotometers**
- 15:45-16:00 A. Utevsky, (*V.N. Karazin Kharkiv National University, Kharkiv, Ukraine*), E. Dyky (*Scientific Committee of Ukrainian Diving Federation, Kyiv, Ukraine*), I. Parnikoza (*Institute of Molecular Biology and Genetics NAS of Ukraine, Kyiv, Ukraine*) **The influence of global climate change on Antarctic tundra and adjacent marine shelf ecosystems**
- 16:00-16:30 **Coffee-break**
- 16:30-17:00 **Plenary session.**
Co-Chairs: Dr. Andrei Utevsky, Dr. Andrej Zalizovsky
Conference recommendations and resolution adoption
- 17:00-17:15 **Closing the Conference**

Poster program (presented during lunch and coffee breaks)
FRIDAY-SATURDAY, MAY 22-23, 2009

A. Artamonov (*Obukhov Institute of Atmosphere Physics RAS, Moscow, Russia*), M. Babiy, A. Bukatov (*Marine Hydrophysical Institute NASU, Sevastopol, Ukraine*), I. Repina (*Obukhov Institute of Atmosphere Physics RAS, Moscow, Russia*), E. Skripaleva (*Marine Hydrophysical Institute NASU, Sevastopol, Ukraine*) **Researches of the large-scale and mesoscale variability of hydrometeorological conditions in the Antarctic coastal regions by experimental measurement data**

Yu. Artamonov, A. Bukatov (*Marine Hydrophysical Institute NASU, Sevastopol, Ukraine*), V. Eremeyev (*Oceanological Center NASU, Sevastopol, Ukraine*), E. Skripaleva (*Marine Hydrophysical Institute NASU, Sevastopol, Ukraine*) **Researches of seasonal and interannual variability of Antarctic sea ice closeness**

O. Burgaz (*Odessa State Environmental University, Odessa, Ukraine*) **The general atmosphere circulation influence on the total ozone in middle and polar region in South Hemisphere**

S.Kovalenok (*Ministry Education and Science of Ukraine, Kyiv, Ukraine*), O.Evtushevsky, A.Grytsai (*Taras Shevchenko National University of Kyiv, Kyiv, Ukraine*) **Asymmetry in total ozone distribution in Antarctic region and South Ocean ecosystem**

N. Sviatlova, V. Storozhenko, N. Taran, A. Okanenko (*Taras Shevchenko National University of Kyiv, Kyiv, Ukraine*) **The *Deschampsia antarctica* adaptive reactions to UV-B irradiation**

O. Tyshchenko (*Taras Shevchenko National University of Kyiv, Kyiv, Ukraine*) **Reproduction peculiarities of Galindez Island bryophytes, Antarctica**

S. Krakovska (*Ukrainian Hydrometeorological Institute (UHMI), Kyiv, Ukraine*) **Numerical study Antarctic precipitating cloudiness**

J. Kolb (*Massey University, Institute of Natural Sciences, Ecology & Conservation Group, Auckland, New Zealand*), C. Evans (*University of Auckland, Faculty of Science, School of Biological Sciences, Auckland, New Zealand*), P. Rainey, R. Barraclough, D. Brunton (*Massey University, Institute of Natural Sciences, Auckland, New Zealand*) **Short circuit co-evolution by the perfect parasite: antifreeze glycoproteins of fish leeches (Hirudinea, Piscicolidae) in Antarctica**

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G.Milinevsky, O.Evtushevsky, A.Grytsai, O.Agapitov (*Taras Shevchenko National University of Kyiv, Kyiv, Ukraine*), A. Klekociuk (*Australian Antarctic Division, Kingston, Australia*) **Asymmetries in Antarctic total ozone distribution and tropopause height**

K. Petrenko (*Central Geophysical Observatory of the MNS of Ukraine, Kyiv*) **The regional trend and direction distinction of temperature changes in Antarctica**

SUNDAY, MAY 24, 2009

09:00-12:00 **Excursions, University tour**