



International Society of Environmental



Sixth International Conference
«Environmental Micropaleontology, Microbiology and Meiobenthology»
EMMM-2011
September 19–22, 2011

FIRST CIRCULAR

ORGANIZATION

A.A. Borissiak Paleontological Institute of the Russian Academy of Sciences (PIN RAS)
Federal State Unitary Enterprise "A.P. Karpinsky Russian Geological Research Institute" (FGUP "VSEGEI")
S.N. Winogradsky Institute of Microbiology of the Russian Academy of Sciences
Russian Academy of Natural Sciences (RANS)
Geological Faculty, M.V. Lomonosov Moscow State University, Russia (MSU)
Avalon Institute of Applied Science, Canada

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INTRODUCTION

The EMMM-2011 will be carried out by Russian Branch of ISEMMM in Moscow and St. Petersburg, Russia on September 15–23, 2011, and will consist of two parts.

The first part will include a field trip to be carried out by the FGUP "A.P. Karpinsky Russian Geological Research Institute" in the St. Petersburg and Leningrad region on September 15–18, 2011.

The second part will include technical sessions conducted at the A.A. Borissiak Paleontological Institute, Russian Academy of Sciences, on September 18–23, 2011.

The First Circular of EMMM-2011 contains important information on the logistics of the meeting. It is also available at www.paleo.ru/EMMM-2011

AIMS AND SCOPE

The main goals of the EMMM-2011 are:

- to enhance further the exchange of ideas in the fields of environmental micropaleontology, meiobenthology, and microbiology on global and regional scales as initiated by previous EMMM conferences through the joint efforts of international, multidisciplinary specialists;
- to promote innovative multidisciplinary research in recent and fossil micro- and meioorganisms;
- to encourage the utilization of micro- and meioorganisms by a broader audience and to bridge the gap between academia, industry, national governments, and interactive organizations;
- to increase our knowledge in environmental fields and our awareness of the world's environmental problems.

The EMMM-2011 focuses on the progress of our knowledge acquisition in EMMM with special attention to:

- (1) Environmental problems and concepts, investigated through correlative studies of a wide range of sites that would provide better understanding of the interrelation between environmental change and the behavior of micro- and meioorganisms;
- (2) Improvement of standards in research methods and techniques;
- (3) Delineation of the main areas of natural risk in order to assist environmental management using micro- and meioorganisms;
- (4) Further elaboration of a complete bibliographic database on EMMM.

The meeting brings together multidisciplinary scientists from all over the world and enhances West-East scientific dialogue by providing a supportive background for collaborative correlation and integration of EMMM discoveries relating to climate change and other environmental cataclysms.

SCHEDULE

September 15: Arrival in St. Petersburg and visit to the Geological Museum.

September 16–18: Field Trips and visit to the Geological Museum.

September 18: Arrival in Moscow.

September 19–22: Registration, technical sessions, and visit to the Paleontological Museum.

September 23: Departure from Moscow to respective countries.

VENUE

The scientific sessions will be held in Moscow at the A.A. Borissiak Paleontological Institute of the RAS on September 19–22, 2011.

The A.A. Borissiak Paleontological Institute of the RAS was established in 1930.

Presently, it is a unique and specialized scientific research institution in Russia.





The Paleontological Museum, named after Yu.A. Orlov, is reckoned among the five most famous museums of natural history.

The history of its establishment goes back to the Kunstkammer of Peter the Great.

There are over 5000 unique natural objects and 1500 graphic reconstructions at the Museum exhibition.

The present exposition is displayed in four large halls over an area of 4500 sq/m, documenting stages in the evolution of life on Earth.



The showcases exhibit collections of the major representatives of organisms that have existed, for example: Foraminifera and Radiolaria, different plants, cephalopods, and others.

Among the exhibitions of the Late Paleozoic and Mesozoic Halls, there are articulated skeletons of Permian reptiles, Jurassic and Cretaceous dinosaurs up to 6 m in height. The Cenozoic Hall is dedicated to mammals. Among them a huge rhinoceros, *Indricotherium*, Mammoths and humans are presented.

TOPICS

1. Micro- and meioorganisms as indicators of environments:
 - the adaptation of micro- and meioorganisms to extreme environments, including anoxia: evidence, history, proxies;
 - micro- and meioorganisms as indicators of climate and sea-level change;
 - sensitivity of micro- and meioorganisms as paleotemperature proxies;
 - micro- and meioorganisms as indicators of pollution;
 - marine microfossils and their role in the cycling and uptake of greenhouse gases, nutrients, and carbon.
2. Bacteria and micro- and meioorganisms
3. Ecological turnovers and the evolution of Phanerozoic biota
4. Prediction and interpretation of environmental issues:
 - evidence from the fossil record to predict/interpret current/future environmental issues;
 - validation of models for the interpretation of present and future environmental responses;
 - environmental and paleoenvironmental biostratigraphy.
5. Micro- and meioorganisms and the derivation of life on Earth:
 - conodonts,
 - radiolarians,
 - foraminifera,
 - microalgae,
 - nannoplankton,
 - spores and pollen,
 - micro- and meioorganisms of coral reefs.
6. Morphology and biodiversity of micro- and meioorganisms:
 - geochemistry of shelled micro- and meioorganisms;
 - pathology of micro- and meioorganisms as environmental indicators;
 - environmental application of biodiversity among micro- and meioorganisms.

7. Degassing of the Earth, biosphere and environment.
8. Petroleum and micro- and meioorganisms:
 - petroleum microbiology;
 - micro- and meioorganisms in oil and gas generation.
9. Applications of micro- and meioorganisms:
 - aeropalynology and medical palynology;
 - applications of micro- and meioorganisms to archaeology, agriculture and industrial needs.
10. Methodology and computer technology:
 - ecotoxicological experiments with micro- and meioorganisms;
 - methodology and scientific devices used in the study of micro- and meioorganisms;
 - quantitative methods of data analysis in the ecology of micro- and meioorganisms;
 - computer technology.

LANGUAGES

The official conference languages are English and Russian. Abstracts must be submitted in English with Russian resume. No synchronous translation from either language will be provided at the meeting. As such, contributors have their choice of presentation language to relate their discoveries to conference participants.

PRESENTATIONS

Each speaker will have 15 minutes for presentation and 5 minutes for discussion. Authors are allowed to present no more than two papers. However, it is permissible to be listed as the co-author in another contribution.

Poster presentations are welcome. Poster format is 120x160 cm.

The final number of ORAL and POSTER technical sessions will depend upon the number of participants and accepted presentations. To be accepted, the presentation must deal with results obtained from applications of micro- and meioorganisms to environmental problems. Topics that go beyond data description to address interpretation and broader understanding of the issues are especially encouraged.

The conference room will be equipped with a computer and projector for presentations: Adobe PDF, Microsoft Office PowerPoint, Open Office Impress, tabletop 35-mm slide projectors, and overhead projectors are available. If other or additional equipment is requested by a presenter, reasonable attempts will be made to accommodate the request.

ABSTRACTS

Accepted abstracts will be published in the Conference Materials.

Extended abstracts up to 4 pages long, including figures and tables of high printing quality, are welcome.

Short and non-informative abstracts will not be considered.

Abstracts must be submitted ELECTRONICALLY by **01 April 2011**. No abstracts will be accepted without registration of at least one of the authors. Every registered participant has the right to submit up to two extended abstracts. Abstracts must be submitted in Microsoft Word format using the abstract template available at the EMMM-2011 website: www.paleo.ru/EMMM-2011.

The best 20 papers on Paleontology and Biosphere Evolution could be published in a Special Volume of the Paleontological Journal. Manuscripts in both Russian and English language will be considered, and those written in Russian will be translated into English by interpreters from MAIK "Nauka/Interperiodica" Publishing House.

PRE-CONFERENCE FIELD TRIPS

The Field Trips will be carried out in the St. Petersburg and Leningrad region on September 15–18, 2011 to examine the Cambrian, and Lower and Middle Ordovician sequences, the famous Sablino Caves and Holocene travertine-like freshwater carbonates. The price list can be seen on the "Registration Form" and at the EMMM-2011 website: www.paleo.ru/EMMM-2011

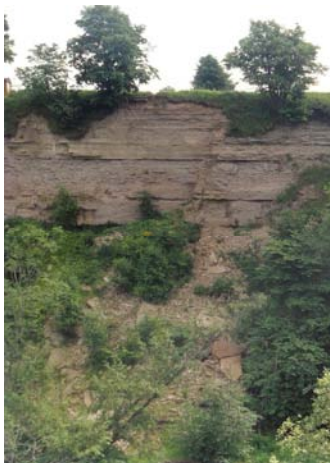
September 15, 2011. Arrival in St. Petersburg, Hotel of the A.P. Karpinsky Russian Geological Research Institute (VSEGEI Hotel), registration for the pre-conference field trips. Visits to the Geological Museum.

The F.N. Chernyshev Central Research Geological Exploration Museum, established in 1882, is the largest geological museum in Russia. Its collection numbers more than 80,000 objects illustrating and documenting the geological history and mineral resources of the vast territory of Russia and other countries of the former USSR. The museum exhibition that occupies the uppermost floor in the VSEGEI building is subdivided into two large blocks: "Regional Geology" and "Mineral deposits."

One of the unique objects of the collection is a 26.6 m² panel containing a geographical map of the USSR at a scale of 1:1,500,000. It was made in early 1930s in the style of a Florentine mosaic with precious and semiprecious stones.



September 16, 2011. Field Trip to the Ordovician sections in the vicinity of St. Petersburg.



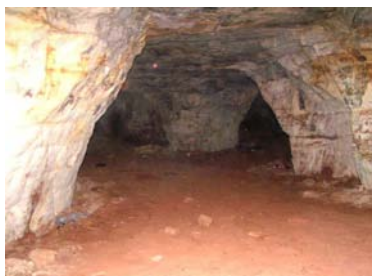
A one-day excursion will examine the Lower Paleozoic successions in the vicinity of St. Petersburg.

This trip will provide opportunities to visit several classical localities of the Cambrian, and Lower and Middle Ordovician where you will see the transition from the terrigenous and carbonate condensed cold water sediments to temperate water limestones with numerous fossils.



The famous Sablino Caves on the beautiful Tosna River with the waterfall will be visited on the way. The man-made caves at Sablino near St Petersburg are a unique underground complex consisting of a number of labyrinths with lakes and enormous chambers. The caves were formed when pure quartz sand was mined from this location for the famous Russian glass and crystal industry.

Even the Emperor's crystal was made from this very sand. The sand was initially mined by hand resulting in the formation of a complex system of tunnels.



Guided: by Andrey V. Dronov

Duration: 9-10 hours. Meal: packed lunches. Route: VSEGEI Hotel – the Putilovo Quarry – the Lava River valley – the Sablino Caves – VSEGEI Hotel. Transportation: a bus.

September 17, 2011. Excursion to the Biochemogenic Holocene travertine freshwater carbonates of the Izhorsk Plateau

Subject matter of one-day excursion. Microbiolitic sedimentation in the springs of the Izhorsk plateau. Genetic types of freshwater biochemogenic carbonates. Holocene history of the Izhorsk Plateau fixed in local paratravertines. Springs of Ingermanland.

The Izhorskaya land, Ingermanland, and Ingria are historical names of the Izhorsk plateau. This is a small historic region in the eastern Baltic, now part of Russia to the southwest of St. Petersburg, comprising the southern bank of the river Neva, between the Gulf of Finland, the Narva River, Lake Peipus in the west, and Lake Ladoga and the western bank of the Volkhov River in the east. The area has a maximum elevation of 176 meters (Duderhof heights).

Ordovician carbonate rocks play a leading role in the geological structure of the plateau. They end in the northern part as a steep escarpment (limestone cliff) and descend gently to the southeast. This area reveals an extremely structural deployment. Systems of disjunctives and folds form a complex picture, and their genesis has been the subject of discussions over almost 200 years. Numerous streams and small rivers are oriented according to the tectonic organization. Specific microbiolitic carbonates were deposited in these rivers during the Holocene. They are similar to travertines to some extent but, at the same time, have a biogenic nature. Their formation is connected with the metabolic activity of bacteria and cyanobacteria. The name "Izhorsk paratravertines" has emerged, and the most intensive phase of formation for these paratravertines falls within the first half of the Holocene. In the past, these rocks were used for architectural decoration in St. Petersburg and called "limy tuff."

Varied types of paratravertines contain numerous paleontologic remains of Charophyta, mosses, mollusks, ostracodes, and insects. By investigating these fossils, we have an opportunity to learn much about the state of ecosystems, conditions of life, the landscapes, and the climates of ancient epochs. These carbonates have long been declared nature sanctuaries, but their modern state requires immediate action from the international scientific community.

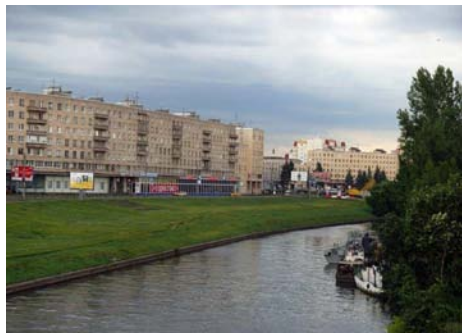


Guided: by Michael Nikitin

Duration: 9-10 hours. Meal: packed lunches. Route: VSEGEI Hotel – the village of Krasnoye Selo – the village of Kavelakhta – the village of Pudost' – the village of Kipen' – the town of Ropsha – the Shingarka River – the village of Gostilitsy – the village of Lopukhinka – the town of Kopor'e – VSEGEI Hotel. Transportation: a bus.

September 18, 2011. Excursion to the Okhta River in St. Petersburg

This river is one of the most polluted rivers in St. Petersburg. As recently as 2009, official environmental control agencies found six sources of industrial pollution within the city. During this field trip, we will try to study the water in the lower streams of the Okhta River with a geochemical multidetector probe. The multidetector will allow us to measure the conductivity of water, pH, Eh, T°, and concentration of dissolved oxygen, ammonium, and nitrites. We will demonstrate the complex of data that permits detection of industrial and domestic pollution.



Guided: by Vadim A. Shakhverdov

Duration: 4.5 hours. Meal: packed lunches. Route: VSEGEI Hotel – the Okhta River – VSEGEI Hotel.

Transportation: a bus

September 18 (in the evening). Departure from St. Petersburg to Moscow by train.

TRAVEL

AIR: from the majority of the airports around the world.

RAIL: Moscow and St. Petersburg are well connected with Eastern and Western Europe as well as Siberia and Asia.

ROAD: Moscow and St. Petersburg are well connected to all European cities.

METRO, CARS and BUSES can be used for transportation within Moscow and St. Petersburg.

BUS will be used for transportation of participants during the field trips.

ACCOMMODATION

In St. Petersburg (pre-conference field trips) – Hotel of FGUP "A.P. Karpinsky Russian Geological Research Institute" (FGUP "VSEGEI").

In Moscow – Hotel "Uzkoe," located within a 15–20 min walk from the venue of the conference in the A.A. Borissiak Paleontological Institute, RAS, and within 10 min by minibus from the metro station "Yasenevo."

Prices are given in the "Registration Form" and are also available at www.paleo.ru/EMMM-2011

Participants who prefer to stay in other Moscow hotels have to arrange their accommodation by themselves.

REGISTRATION FEE

Registration fee	Prices in Euros		
	before June 30	after June 30	after August 1
Participant	100	110	120
Accompanying person	25	30	35
Student	50	55	60

The registration fee covers the conference kit, coffee/tea breaks twice a day, Paleontological and Geological Museum entrance fees, use of lecture room, demonstration equipment, and services of assisting personnel.

It does not cover hotel accommodation, field trips, lunches and dinners during the conference, publishing of abstracts and conference proceedings.

REFUND POLICY

Fifty percent refund before June 30, 2011. No refund is possible after June 30, 2011.

FINANCIAL SUPPORT

The Organizing Committee has NO money for financial support to attend EMMM-2011. Therefore, applicants should seek funds from elsewhere to help underwrite the costs of attendance.

VISA

Visitors from other countries must carry a valid passport and, in most cases, a visa to be able to enter Russia. For more information on visa and other required travel documents, please contact the Russian Embassy or Consulate in your area before your departure.

An Invitation Letter required for obtaining a Russian visa will be provided upon your request. To obtain such a letter you must provide a jpg or pdf copy of your passport and send the Registration Form (available at the conference website) as soon as possible but not later than **01 March 2011** as the Organizing Committee will require time to prepare and post this letter by surface mail.

CLIMATE

Typical temperatures for the middle of September are 15°C (day) and 7°C (night). Rainy days are possible.

SOCIAL PROGRAM FOR ACCOMPANYING PERSONS

The organizing committee can organize excursions in some historical objects and museums of Moscow and St.-Petersburg for all accompanying persons. Please, send your demands for excursions in advance EMMM-org@paleo.ru.

For the visit in the Grand Kremlin Palace you must provide personal passport data until 15 January 2011: a copy of passport pages with full name, date and place of birth, passport number, place of issue and expiry date, nationality.

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Abstract submission: EMMM-abstract@paleo.ru

Registration: EMMM-registration@paleo.ru

Visa and Invitation Letter: EMMM-visa@paleo.ru

Other questions: EMMM-org@paleo.ru

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DEADLINES

January 15, 2011	Registration (see special file "Registration-Form-EMMM-2011")
March 01, 2011	Personal data for the Invitation Letter
April 30, 2011	Abstract submission closes
June 30, 2011	Deadline for early registration
July 1, 2011	Notification of abstract acceptance
July 15, 2011	Second Circular on EMMM-2011 website www.paleo.ru/EMMM-2011
August 1, 2011	Deadline for total payment through the bank account or the postal order
August 31, 2011	Conference Programme on EMMM-2011 website www.paleo.ru/EMMM-2011

CONFERENCE INFORMATION

All conference information is available on the website of the A.A. Borissiak Paleontological Institute, RAS (PIN RAS): www.paleo.ru/EMMM-2011