

53rd conference of the Czech Phycological Society, Ostrava, September 2012

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<http://www1.osu.cz/~elias/CAS2012/uvod.html>

Ostrava, a city in the north-east corner of the Czech Republic (in)famous for its long industrial history but building its academic infrastructure only in recent years, hosted for the first time a gathering of experts in diverse branches of algal research. Held from 10th to 13th September 2012 at the Faculty of Science, University of Ostrava, the 53rd conference of the Czech Phycological Society provided a platform for almost 70 participants from the Czech Republic and eight other countries to present and discuss exciting new results from research addressing various aspects of algal biology.

The previous conference of the Czech Phycological society in 2011 in Prague opened this national annual meeting to guests from foreign countries by launching a session with presentations in English. The most recent meeting in Ostrava confirmed this as a new tradition, since a whole day (12th September), comprising the sessions “Algal biology at the cellular and molecular level”, “Phylogenetic diversity of algae”, and “Environmental dimension of algal life”, was held in English. Most of the talks in these sessions were given by students and young investigators from various Czech institutions, but they included also talks by seven experts from outside the Czech Republic. The audience thus had an opportunity to enjoy presentations, for example, by Joel B. Dacks from the University of Edmonton (Alberta, Canada), Anna Karnkowska-Ishikawa from the University of Warsaw (Poland), Raquel F. Amaral from the University of Coimbra (Portugal), or Claire M. Gachon from the Scottish Marine Institute, Scottish Association for Marine Science (Oban, UK). Nevertheless, the programme in Czech on the remaining days was no less interesting and scientifically significant, corroborating the fact that phycology in the Czech Republic remains a strong and rapidly developing field of research.

The conference was supported by the Institute of Environmental Technologies (Research and Development for Innovations Operational Programme, EU Structural Funds, project no. CZ.1.05/2.1.00/03.0100) and was further sponsored by OLYMPUS CZECH GROUP, s.r.o., KRD – obchodní společnost, s.r.o., and Photon Systems Instruments, s.r.o.

Let me thank all the participants for their excellent contributions to both the scientific programme of the conference and to the friendly atmosphere that surrounded the whole event. My big thanks go also to my students and colleagues at the Department of Biology and Ecology, Faculty of Science, University of Ostrava, for all their help with organizing the conference.

Presented talks

Alena Lukešová: Společenstva půdních řas a sinic na výsypkách po těžbě uhlí

Aleš Horák: Global analysis of plastid diversity reveals apicomplexan-related lineages in coral reefs

Aloisie Pouličková: Recent and past diversity and ongoing environmental change within Central European ombotrophic wetlands

Anna Karnkowska-Ishikawa: Evolution of introns in nuclear genes of euglenids

Arun Kumar Mishra: Heterocyst development and nitrogen fixation in Cyanobacteria

Claire M.M. Gachon: Host-pathogen interactions: from genomes to marine ecosystems

Daria Tashyreva: A novel staining protocol for multiparameter assessment of cell heterogeneity in *Phormidium* populations

David Ryšánek: Biogeografie a diverzita zelené řasy rodu *Klebsormidium*

Eliška Zapomělová: Morphological, molecular and ecological diversity of *Anabaena* spp. (Cyanobacteria) without gas vesicles

Eva Sýkorová: Diversity and evolution of plant and algal telomeres

- František Hindák: *Pearsoniella variabilis* FRITSCH et RICH 1924 a *Uronema gigas* VISCHER 1933 – synonyma pre *Schizomeris leibleinii* KÜTZING 1843?
- Helena Bestová: Fylogenetická struktura společenstev krásivek
- Jana Kvíderová: Sněžné řasy dočasných sněžných polí v Petunabukta, Svalbard
- Jana Szabová: Evolution and distribution of MAT and MATX genes in euglenoids
- Jaromír Lukavský: Kryoseston pohoří Rodopy, Bulharsko
- Jiří Neustupa: Nový rod *Leptochlorella* a další novinky z oblasti kokálních zelených řas
- Jiří Vašák (Sponsor presentation – KRD): Nové přístupy v genomice (nejen řas)
- Joel B. Dacks: Membrane–trafficking machinery encoded in algal genomes: insight into system reduction and a complex ancient eukaryotic ancestor
- Josef Elster: Impact of warming on *Nostoc* colonies (Cyanobacteria) in a wet hummock meadow, Svalbard
- Katarína Nemjová: Genetická diferenciácia populácií *Micrasterias rotata* (Zygnematophyceae, Streptophyta)
- Kateřina Bernardová: Identifikace potenciálních producentů microcystinu
- Kateřina Bišová: Coordination of cell cycle progression and DNA damage response by *wer* (WEE1 regulation) mutants in *Chlamydomonas reinhardtii*
- Kateřina Janatková: Biologické půdní krusty západního Himaláje
- Klára Řeháková: Interaction between *Microcystis* and *Anabaena* during co–cultivation experiment
- Klára Šimková (Sponsor presentation – Photon Systems Instruments): Advanced instrumentation in modern algology
- Lenka Procházková: Ekofyziologické charakteristiky sněžných řas
- Lenka Šejnohová: Nové Centrum řasových biotechnologií (projekt Algatech) na MBU AV ČR v Třeboni – modernizace velkoobjemových kultivací řas a rozšiřování týmu odborníků
- Lenka Štenclová: Systematická revize čeledi Oocystaceae
- Lira Gaysina: *Chloropyrularia uraliensis* gen. et sp. nov., a new green coccoid alga (Trebouxiphyceae, Chlorophyta) with an unusual ultrastructure
- Lucie Vančurová: Diverzita fotobiontů ve stélkách lišejníků rodu *Stereocaulon*
- Martina Pichrtová: Stresová odolnost řasy *Zygnema* v polárních oblastech
- Matej Vesteg: Common motifs in predicted mitochondrial targeting presequences in parasitic trypanosomatids and in the phototroph *Euglena gracilis*
- Miroslav Oborník: Phototrophic ancestry of Apicomplexa
- Pavel Rychtecký: Využití fluorescenčního značení SYTOX Green pro zjištění mortality rozsivek a jiného fytoplanktonu
- Pavel Škaloud: Morphology and phylogenetic position of the freshwater green microalgae *Chlorochytrium* (Chlorophyceae) and *Scotinosphaera* (Scotinosphaerales, ord. nov., Ulvophyceae)
- Petr Dvořák: Biogeography of cyanobacteria: a question of time or space?
- Petr Pummann: Jak počítat *Microcystis*
- Petr Znachor: Využití fluorescenčního značení PDMPO pro zjištění růstu rozsivek
- Petra Mazalová: Význam morfologických charakteristik v systému desmidií
- Przemysław Gagat: Protein import into *Paulinella* photosynthetic organelles
- Raquel F. Amaral: Reassessment of the algal genus *Characiopsis* BORZI based on molecular and morphological data: no longer a xanthophyte
- Robert Šuťák: Iron uptake by marine microalgae
- Štěpánka Hrdá: Secondary endosymbiosis: five (genomes) in one (organism)
- Tereza Hasíková: The taxonomic conundrum of the highly polyphyletic genus *Tetracystis* (Chlamydomonadales, Chlorophyceae)
- Veronika Zbránková: Mitochondrial genomes of eustigmatophyte algae
- Vladislav Cepák: Projekt BIORAF, Technologická agentura ČR
- Yvonne Němcová: *Mallomonas pumilio* group – a revision based on the scale/scalecase morphology and geometric morphometric data

Presented posters:

- Eliška Zapomělová, Graciela Ferrari, María del Carmen Pérez: Polyphasic characterization of *Dolichospermum uruguayense* spec. nov., a planktonic cyanobacterium dominating the Lower Uruguay River, South America
- Barbora Chattoová, Bart Van de Vijver, Ditmar Metzeltin, Marc Lebourvier: The genus *Pinnularia* (Bacillariophyta) on Ile Amsterdam
- Jana Veselá, Pavla Urbánková: Functional genetic diversity within the *Frustulia rhomboides* species complex
- Ivan Iliev, Gergana Gacheva, Lyubka Koleva, Ivona Nikova, Gergana Stoilkova, Georgi Petkov, Jaromír Lukavský:

- Algae favour the development of higher plants at petroleum contained soil
- Yvonne Němcová, Martin Pusztai, Jana Kreidlová: Newly described species of the genus *Mallomonas*
- Kristína Záhonová, Matej Vesteg, Juraj Krajčovič: Functional copies of plastid genes in the nucleus of the flagellate *Euglena gracilis*?
- Kateřina Procházková, Lira A. Gaysina, Martina Pichrtová, Katarína Nemjová, Alena Lukešová, Marek Eliáš: The diversity in the *Vischeria/Eustimatos* complex (Eustigmatophyceae): morphological and molecular perspectives
- Tomáš Hauer, Petra Böhmová: Cyanobacterial biofilms on interior walls of natural draught cooling towers
- Urbánková Pavla, Veselá Jana: DNA barcoding: A case study in the diatom genus *Frustulia*
- Katya Pushkareva: Diversity and ecological characterisation of soil crust ecosystem, Billefjorden, Svalbard
- Martina Pichrtová, Daniel Remias, Andreas Holzinger: The effect of an enhanced UV AB: PAR ratio on pigmentation and ultrastructure of *Zygnema* from polar regions
- Martina Pichrtová, Kateřina Černá, Magda Škaloudová, Jana Veselá, Yvonne Němcová, Jiří Neustupa, Pavel Škaloud: An assessment of optimal growth conditions for microalgal strains using crossed gradients of light and temperature – a prerequisite for toxicity tests
- Martina Pichrtová, Yvonne Němcová, Pavel Škaloud, Eugen Rott: Scale bearing planktonic chrysophytes from North Tyrol, Austria
- Pavel Svoboda, Jana Veselá, Jan Šťastný: Distribution, diversity and ecology of benthic desmids along local spatial scale
- Jana Fulnečková, Tereza Hasíková, Jiří Fajkus, Alena Lukešová, Marek Eliáš, Markéta Bohunická, Eva Sýkorová: Telomere variability and telomerase dynamics in green algae



Participants of the 53rd conference of the Czech Phycological Society, Ostrava, September 2012.