



27 Feb. - 2 March 2013
Kartause Ittingen (CH)

The 32nd Meeting of the German Society for PROTOZOOLOGY

Organizers

T. Posch & A. Kunz
Limnological Station
Institute of Plant Biology
University of Zürich

Supported by

Hydrobiologie-Limnologie-Stiftung, ZH
Swiss National Science Foundation
ScNat – Swiss Academy of Sciences
Institute of Plant Biology, ZH
Faculty of Sciences, ZH
Zeiss
DGP



**32nd Meeting of the
German Society for Protozoology (DGP)
27 February – 2 March 2013
Kartause Ittingen
CH-8532 Warth-Weiningen
Switzerland**



**32. Wissenschaftliche Tagung
der Deutschen Gesellschaft für Protozoologie (DGP)
27. Februar bis 2. März 2013
Kartause Ittingen
CH-8532 Warth-Weiningen
Schweiz**

Dear participants of the DGP2013 Meeting in Kartause Ittingen!

We are surprised and happy about the immense feedback. A total of 105 participants will attend the meeting. The scientific program consists in 42 talks, 32 poster presentations and 6 invited talks. We are pleased to inform you that besides well-known scientists, many young researchers (Master students, PhD students, and Post-Docs) will also join the meeting.

The goal of the meeting is to bring together scientists who study a large diversity of topics within protistology in order to promote scientific exchange between distanced subjects (e.g. research in soil, air and aquatic habitats, symbiosis, etc.), to discuss common approaches and standardized methods. The meeting will promote the establishment of new fruitful collaborations. The meeting place also offers many possibilities for social get-together.

Please notice:

- New rules for the presentation of posters!
- Explanation of the interesting session titles on Saturday!

February 2013, Kilchberg

Dr. Thomas Posch & Astrid Kunz

Organizing committee

MSc. Sebastian Dirren
Dr. Marie-Ève Garneau
Dr. Bettina Sonntag

Co-helper

MSc. Michael Baumgartner
MSc. Ester Eckert
Ing. Eugen Loher
MSc. Stefan Neuenschwander
Prof. Jakob Pernthaler
Dr. Michaela M. Salcher
Markus Steinkellner
MSc. Jörg Villiger

Our thanks go to the following supporters for their financial help:

- **Hydrobiologie-Limnologie Stiftung für Gewässerforschung**
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- **Institute of Plant Biology (University of Zurich)**
<http://www.botinst.uzh.ch/index.html>
- **Limnological Station (Institute of Plant Biology, University of Zurich)** www.limnol.uzh.ch
- **DGP – German Society for Protozoology**
<http://www.protozoologie.de>
- **ZEISS Switzerland**
<http://www.zeiss.ch>



Swiss Academy of Sciences
Akademie der Naturwissenschaften
Accademia di scienze naturali
Académie des sciences naturelles

We make it visible.

Social events

The get-together will be on Wednesday (February 27) evening.

On Friday evening there will be an open air Swiss Cheese Fondue. This event will start with a short walk to a nearby forest where we will receive our aprons (*Schürzen*) to store the bread, wine and fork. Further details about Swiss Cheese Fondue are given in *Asterix bei den Schweizern - Asterix in Switzerland - Astérix chez les Helvètes* (Goscinny & Uderzo 1973).

Afterwards, desserts will be served in the basement of Kartause Ittingen (*Ritterkeller*) and **awards will be given for the best posters and student oral presentation**. Finally, you are invited to spend the rest of the evening in the “Ritterkeller” with dance and music (**DJ POWERWASTL**).

There can be **some (or even a lot) of snow** during this period of the year, so please take adequate clothes with you to enjoy (and survive) the open air Cheese Fondue. **We will be outdoor for 1.5-2h**, thus you **will need warm clothes and shoes!** Some heating will be guaranteed by open-fire places and the famous Swiss Cherry Schnaps (Kirsch).

MONEY – MONEY

The official currency of Switzerland is the Swiss Franc (CHF). There is **no cash machine** in the area of Kartause Ittingen. The next cash machines can be found in the closest city (Frauenfeld) – you will need 10 minutes by car. The Kartause Ittingen accepts credit cards. However, smaller expenses for drinks (Restaurant / Bar) and gifts (shop directly at Kartause Ittingen) should be paid in cash. So please **take some cash money (Swiss Francs)** with you.



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Wednesday, 27 February 2013, afternoon

14:00-22:00

Check-in and registration at Kartause Ittingen

WORKSHOP

Protists as indicators of aquatic ecosystems health

Chairmen: Caron David & Posch Thomas

15:00-15:30

Foissner Wilhem

Key lecture

Protists as indicators of ecosystem health: Quo Vadis?

15:30-15:45

Comments & Discussion 1

15:45-16:00

Patterson R. Timothy, Roe Helen M. & Swindles Graeme T.

An Arcellacea (testate lobose amoebae/theCAMOEBIAN) based transfer function for phosphorus in lakes.

16:00-16:15

Comments & Discussion 2

16:15-16:30

BREAK

16:30-17:00

Schramm Karl-Werner & Rathore Rajesh

Key lecture

Phenotypic and genotypic profiling of chemicals and particulate matter in *Tetrahymena spec.*

17:00-17:30

Comments & Discussion 3

17:30-18:00

Presentation of a case study by Foissner Wilhelm

18:00-19:00

BREAK

19:00-

GET-TOGETHER (Kartause Ittingen)

| Thursday, 28 February 2013, morning | |
|---|--|
| 08:00-12:00 | Registration at Kartause Ittingen |
| 08:45-09:00 | Welcome by Gela Preisfeld & Posch Thomas |
| Is what we sequence what we see? Chairman: Weisse Thomas | |
| 09:00-09:45 | Caron David Key lecture 'May you live in interesting times': The intersection of classical and modern molecular approaches for studying protistan diversity and community structure. |
| 09:45-10:00 | Bock Christina, Kusber Wolf-Henning & Krienitz Lothar Classification of crucigenoid algae (Scenedesmaceae, Chlorophyta). |
| 10:00-10:15 | Jeuck Alexandra, Lisson Lene, Arndt Hartmut & Nitsche Frank Studies on the phylogenetic relationships, morphology and autecology of non-acanthoecid choanoflagellates (Craspedida). |
| 10:15-10:45 | COFFEE BREAK |
| 10:45-11:00 | Großmann Lars, Bock C., Schweikert M. & Boenigk Jens Small but manifold - hidden diversity in the colourless chrysophycean 'genus' <i>Spumella</i> . |
| 11:00-11:15 | Filker Sabine, Ganser Jean-Pierre & Stoeck Thorsten Evaluation of sequencing strategies to capture protistan diversity along a salt gradient. |
| Symbiosis - about the excitement of living together Chairman: Posch Thomas | |
| 11:15-11:30 | Dirren Sebastian, Salcher M. Michaela, Pernthaler Jakob, Schweikert Michael & Posch Thomas <i>Ménage-à-trois</i> : The amoeba <i>Nuclearia</i> sp. from Lake Zurich with its ecto- and endosymbiotic partners. |
| 11:30-11:45 | Siegmund Lisa, Burmester Anke, Fischer Martin S. & Wöstemeyer Johannes <i>Tetrahymena</i> and <i>Escherichia coli</i> in interaction: A model for endosymbiosis in ciliates. |
| 11:45-12:00 | Schrallhammer Martina, Petroni Giulio, Görtz Hans D. & Berendonk Thomas U. <i>Caedibacter</i> and <i>Holospora</i> : similarities and differences of <i>Paramecium</i> endosymbionts. |
| 12:00-14:00 | LUNCH BREAK |

| Thursday, 28 February 2013, afternoon | |
|---|--|
| Ciliates - from salty to sweet Chairwoman: Sonntag Bettina | |
| 14:00-14:45 | Agatha Sabine Key lecture Convergences and divergences in the evolution of marine plankton ciliates (Protista, Ciliophora). |
| 14:45-15:00 | Gimmler Anna, Stoeck Thorsten, Bittner Lucie & the Tara Oceans Consortium Tara Oceans: Exploring ciliate diversity in the world's oceans. |
| 15:00-15:15 | Forster Dominik, Bittner Lucie & Stoeck Thorsten Analyses of V4-SSU rDNA reveal distribution patterns of ciliate communities in European coastal waters. |
| 15:15-15:30 | Scherwass Anja, Schulze Anke, Gehrke Gesa & Arndt Hartmut Long-term dynamics of ciliates in the plankton of River Rhine at Cologne. |
| 15:30-16:00 | COFFEE BREAK |
| What we should know about molecular cell biology! Chairwoman: Preisfeld Gela | |
| 16:00-16:15 | Günzler Ulrike, Kraushaar Katja & Simon Martin Molecular analysis of trans acting siRNAs in <i>Paramecium tetraurelia</i> . |
| 16:15-16:30 | Staudt Emanuel, Bledowski Alexander, Plattner Helmut & Simon Martin Immunolocalization of phospholipase C multigene family members in <i>Paramecium tetraurelia</i> indicates differential cellular localization and secretion of individual isoforms. |
| 16:30-16:45 | Deponte Marcel Mitochondrial protein import in parasitic protists. |
| 16:45-17:00 | Cheab Miriam & Simon Martin Dynamic chromatin remodeling at HSP70 promoters enables fast transcriptional activation after heat shocks in <i>Paramecium tetraurelia</i> . |
| 17:00-18:00 | Short presentations of posters Chairs: Garneau Marie-Eve & Posch Thomas |
| List of Posters: | |
| ▼ CONTINUED ▼ | |

- P1 **Agasild Helen, Zingel Priit & Nõges Tiina**
Live labelling of natural planktonic ciliates – a method for studying the ciliate-crustacean trophic interactions in aquatic systems.
- P2 **Baumgartner Michael, Blom Judith, Pernthaler Jakob**
Predator-prey interactions induce rapid adaptation in a freshwater bacterial isolate.
- P3 **Bechert Jan & Bräucker Richard**
Comparative analysis of direction dependent photokinesis in ciliates.
- P4 **Bleidißel Sabrina & Preisfeld Gela**
Underestimated diversity of *Symbiodinium* (Dinzoa) as zooxanthellae in *Phylloidesmium* (Gastropoda).
- P5 **Dabbagh Nadja, Bleidißel Sabrina & Preisfeld Gela**
Is highly sensitive qPCR an adequate method to measure the purity of isolated chloroplast DNA from phototrophic euglenid cells?
- P6 **Dietersdorfer Elisabeth, Kirschner Alexander, Indra Alexander, Schrammel Barbara & Walochnik Julia**
Free living amoebae as reservoirs and training grounds for *Legionellae* – Are VBNC *Legionellae* directly able to infect human host cells?
- P7 **Domonell Anne, Arndt Hartmut & Nitsche Frank**
Next-generation-sequencing of protist community structures.
- P8 **Eckert Ester M., Baumgartner Michael, Huber Iris M. & Pernthaler Jakob**
Feeding on their competitor's remains: Grazing resistant freshwater bacteria profit from organic carbon possibly released through protistan foraging.
- P9 **Fegers Kathrin, Jost Steffen & Boenigk Jens**
Cyst formation by Chrysophyceae.
- P10 **Grosser Katrin, Koehler Lars, Schrollhammer Martina & Berendonk Thomas U.**
Effect of the bacterial parasite *Holospira caryophila* on the fitness of *Paramecium biaurelia*.
- P11 **Haarhaus Verena, Wodniok Sabina & Boenigk Jens**
Metagenomic analysis of soil microbial communities.
- P12 **Hamilton Kristina M., Stern Rowena, Walne Antony, Tarran Glen, Edwards Martin & McQuatters-Gollop Abigail**
An automated water sampler, plankton communities, and long-term data comparison.
- P13 **Heber Domingo & Foissner Wilhelm**
Morphology and morphogenesis of a *Psilotricha*-like ciliate from Hawaii.
- P14 **Koenig Isabelle, Feldmeyer-Christe Elizabeth & Mitchell Edward A. D.**
Ecology of vascular plant, bryophyte and testate amoeba communities in four *Sphagnum* peatlands along an altitudinal gradient in Switzerland.
- P15 **Krashevskaya Valentyna, Maraun Mark & Scheu Stefan**
How does fertilization affect density, diversity and community structure of testate amoebae of montane tropical rainforests?
- P16 **Kusber W.-H., Bock Christina & Jahn R.**
GBIF-D Algae & Protozoa: Portal for biodiversity data using BioCAsE technology.
- P17 **Lax Gordon & Stoeck Thorsten**
Gold-FISH on protists: combining *in situ* hybridization with scanning electron microscopy for identification.

▼ CONTINUED ▼

- P18 **Marcisz Katarzyna, Mitchell Edward A.D., Fournier Bertrand, Gilbert Daniel, Siegenthaler Andy, Buttler Alexandre & Lamentowicz Mariusz**
Testing the response of peatland testate amoebae to *in situ* water table changes.
- P19 **Mulot Matthieu & Mitchell Edward A.D.**
Effect of experimental water table depth manipulation on peatland testate amoeba community structure and on pore number of *Hyalosphenia papilio* Leidy.
- P20 **Omar Atef, Kreutz Martin & Foissner Wilhelm**
Updating the Microthoracids (Ciliophora, Microthoracida): Five new *Drepanomonas* taxa from soil.
- P21 **Pärschke Stefan & Preisfeld Gela**
SSU rDNA phylogeny of the Discoba (Excavata), with emphasis on the Discicristata.
- P22 **Posch Thomas, Eugster Bettina, Salcher Michaela M. & Dirren Sebastian**
All you can eat – theoretical considerations and experiments about protists feeding on various toxic cyanobacteria.
- P23 **Reczuga Monika, Swindles Graeme T. & Lamentowicz Mariusz**
Biodiversity of testate amoebae in an Amazonian peatland.
- P24 **Salcher Michaela M., Ewert Claudia, Šimek Karel, Kasalický Vojtěk, Pernthaler Jakob & Posch Thomas**
Grazing by the flagellate *Poterioochromonas* sp. induces strain- and growth rate-specific defence mechanisms in different bacterial isolates.
- P25 **Scheikl Ute, Tsao Allen, Horn Matthias, Indra Alexander & Walochnik Julia**
Free-living amoebae (FLA) as vehicles for *Legionella pneumophila* and other bacteria – a pilot study.
- P26 **Sepev Christophe, Fournier B., Mulot M., Mitchell E.A.D., Szelecz I. & Lara E.**
Changes in soil Euglyphida communities under pigs cadavers assessed by high throughput sequencing: a new indicator of the post mortem interval (PMI)?
- P27 **Stoeck Thorsten, Filker Sabine & Foissner Wilhelm**
Morphological and molecular description of a new species in the extraordinary genus *Schmidingerothrix* (Ciliophora, Hypotricha).
- P28 **Szelecz Ildiko, Kiang C., Fournier B., Amendt J., Heurich M. & Mitchell E. A. D.**
Testate amoebae in soil – their potential as an indicator of time since death.
- P29 **Walochnik Julia, Gruber Florian, Mildner Michael, Tschachler Erwin & Barisani Talin**
Acanthamoeba invading human tissue.
- P30 **Weinisch Lea, Breiner Hans-Werner, Filker Sabine, Stock Alex & Stoeck Thorsten**
Structure analysis of an eukaryotic microbial community along a salinity gradient in the DHAB Discovery (Mediterranean Sea).
- P31 **Wimmer Romana, Berninger Ulrike G. & Wickham Stephen A.**
Mixotrophy as an advantageous strategy: The role of food quality.
- P32 **Wylezich Claudia, Herlemann Daniel & Jürgens Klaus**
Adaptation of V4 eukaryotic amplicon pyrosequencing for protists of oxic-anoxic boundary layers.

18:00 – 19:00 Postersession

19:00

DINNER (Kartause Ittingen)

Friday, 1 March 2013, morning

Protists go theory
 Chairman: Corno Gianluca

- 08:45-09:30 **Petchey Owen**
 Key lecture Extinctions, warming, & food webs linked using microbial microcosm experiments.
- 09:30-09:45 **Giometto Andrea, Altermatt Florian, Carrara Francesco, Maritan Amos & Rinaldo Andrea**
 Scaling body size fluctuations.
- 09:45-10:00 **Altermatt Florian, Schreiber Sebastian & Holyoak Marcel**
 Spatial clustering of habitat structure effects patterns of community composition and diversity.
- 10:00-10:15 **Moorthi Stefanie & Hillebrand Helmut**
 Competition and nutrient dynamics among mixotrophic and heterotrophic ciliates.

 10:15-10:45 **COFFEE BREAK**

What protists do in nature
 Chairman: Hess Sebastian

- 10:45-11:00 **Busch Michaela, Gese Katrin, Hillebrand Helmut & Moorthi Stefanie**
 Effects of nutrient limitation and prey availability on feeding of potentially harmful mixotrophic dinoflagellates.
- 11:00-11:15 **Zingel Priit, Agasild Helen, Karus Katrit, Kangro Kersti, Salujõe Jaana & Nõges Tiina**
 The relative importance of metazooplankters and planktivorous fish in regulating the community of planktonic ciliates in a shallow eutrophic lake.
- 11:15-11:30 **Karus Katrit, Zingel Priit & Paaver Tiit**
 The cascading effects of predation by planktivorous juvenile fish on the microbial loop.
- 11:30-11:45 **Oikonomou Andreas, Pachiadaki Maria & Stoeck Thorsten**
 Protistan predation on prokaryotic population in a meromictic lake.
- 11:45-12:00 **Risse-Buhl Ute, Schlieff Jeanette & Mutz Michael**
 Can phagotrophic protists enhance microbial leaf litter processing at critical oxygen levels?

 12:00-13:45 **LUNCH BREAK**

Friday, 1 March 2013, afternoon

Happy protists in extreme environments
 Chairman: Pernthaler Jakob (session after key lecture)

- 13:45-14:30 **Pawlowski Jan**
 Key lecture Protist metabarcoding: a new tool for environmental biomonitoring?
- 14:30-14:45 **Piwoz Kasia, Wiktor Józef Maria, Niemi Andrea, Tatarek Agnieszka & Michel Christine**
 Mesoscale distribution and functional diversity of picoeukaryotes in the sea ice of the Canadian Arctic Archipelago during spring.
- 14:45-15:00 **Stock Alexandra, Edgcomb Virginia, Orsi William, Filker Sabine, Breiner Hans-Werner, Yakimov Michail M. & Stoeck Thorsten**
 Isolated evolution of ciliate communities through environmental selection and geological chronology in deep-sea basins.
- 15:00-15:15 **Kammerlander Barbara, Breiner Hans-Werner, Sommaruga Ruben, Sonntag Bettina & Stoeck Thorsten**
 Protistan plankton communities in transparent and glacier-fed turbid high mountain lakes (Alps and Himalaya).

 15:15-15:45 **COFFEE BREAK**

So many amoebae!
 Chairman: Meisterfeld Ralf

- 15:45-16:00 **Mitchell Edward A.D., Szelez I., Klang C., Seppey C., Fournier B., Mulot M., Amendt J., Heurich M. & Lara Enrique**
 Response of soil testate amoebae to the presence of a decomposing pig cadaver – a study using morphological and molecular approaches.
- 16:00-16:15 **Geisen Stefan & Bonkowski Michael**
 Soil naked amoeba in rare environments: Enormous diversity of mostly unknown species.
- 16:15-16:30 **Lamentowicz Łukasz, Jassey Vincent E. J., Gąbka Maciej, Rusińska Anna & Lamentowicz Mariusz**
 Linkages between testate amoebae and vegetation communities along a poor- to extremely rich-fen gradient
- 16:30-16:45 **Komarov A.A., Tsyganov A.N., Mitchell E.A.D., Shimano S. & Mazei Yuri A.**
 Distribution of *Sphagnum*- and soil-dwelling testate amoebae in taiga (Russia).
- 16:45-17:00 **Tsyganov Andrey N., Babeshko K.V., Novenko E.Yu., Volkova E.M. & Mazei Yu.A.**
 Ecology of *Sphagnum*-dwelling testate amoebae in the forest-steppe zone and development of a local transfer function for palaeohydrological reconstruction.

 17:00-17:15 **BREAK**

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For old and new members of the DGP and DGPF:
(Meeting in German language)

17:15-18:15 **Mitgliederversammlung der DGP**
18:15-19:00 **Mitgliederversammlung der DGPF**

19:15 **Short walk to the Open-air Cheese Fondue (WARM CLOTHES)**
19:30-21:00 **Open-air Cheese Fondue (WARM CLOTHES)**
21:00-22:00 **Dessert & Awards**
22:00-02:00 **Bar, Beer, Dancing, Music with DJ POWERWASTL**

Session titles on Saturday, 2 March 2013:

You may wonder about the dubious titles of
the Saturday morning sessions.

As we have special awards for early-career speakers (students), we had
to put their talks on the first two days of the meeting, allowing the
committee to judge these talks.

Consequently, we had to move talks of more experienced scientists to
Saturday, irrespective of their topics.

Thus we received a *mixtum compositum*, which feels a bit like reading
different chapters of a protistological textbook.

Knowing the background, we hope that everybody can accept and enjoy
this *potpourri*.

Saturday, 2 March 2013, morning

Non-linear food webs in salty lakes give new perspectives in devouring Arctic eco-protists Chairwoman: Agatha Sabine

- 09:00-09:15 **Arndt Hartmut, Nomdedeu Mar Monsonis, Becks Lutz & Schieffer André**
Non-linearity in the protistan world.
- 09:15-09:30 **Corno Gianluca**
Protists: key factor for energy fluxes in microbial food webs?
- 09:30-09:45 **Roe Helen M. & Patterson R. Timothy**
Arcellaceans (testate lobose amoebae) as bio-indicators of salt contamination in lakes: insights from the Greater Toronto Region, Canada.
- 09:45-10:00 **Lara Enrique, Gomaa Fatma, Kosakyan Anush, Chatelain Auriel, Heger Thierry J. & Mitchell Edward A.D.**
A new perspective on testate amoebae taxonomy and phylogeny.
- 10:00-10:15 **Hess Sebastian & Melkonian Michael**
Two highly specialised flagellates devouring freshwater algae.
- 10:15-10:30 **Nitsche Frank & Arndt Hartmut**
Comparison of similar Arctic and Antarctic morphotypes of heterotrophic protists regarding its genotypes and ecotypes.

10:30-11:00 **COFFEE BREAK**

Why termites with contractile vacuoles don't live in bromeliads of UV radiated Krauthügel ponds Chairman: Boenigk Jens

- 11:00-11:15 **Radek Renate, Krüger Julia, Strassert Jürgen, Meuser Katja & Brune Andreas**
Hidden diversity of oxymonads in dry wood termites.
- 11:15-11:30 **Plattner Helmut**
More proteins for a dynamic organelle – the contractile vacuole complex.
- 11:30-11:45 **Weisse Thomas, Scheffel Ulrike, Stadler Peter & Foissner Wilhelm**
Contrasting life strategies of two common ciliates from tank bromeliads
- 11:45-12:00 **Sonntag Bettina**
Planktonic ciliate ecology: photoprotection and recovery strategies from damages induced by ultraviolet radiation.
- 12:00-12:15 **Foissner Wilhelm, Medicus Reinhard, Augustin Hannes & Cotterill F.P.D.**
A natural monument for ciliated protozoa: The ephemeral Krauthügel pond in the Town of Salzburg.

12:15-12:30 **Closing by Boenigk Jens & Posch Thomas**

12:30-14:00 **LUNCH**

END of the DGP 2013