XLII INTERNATIONAL MOOR EXCURSION TO NORTHERN POLAND Combining multi-proxy palaeoecology with natural and manipulative experiments 1.-7. September 2018

Organizers: Mariusz Lamentowicz, Katarzyna Marcisz, Mariusz Gałka, Katarzyna Kajukało

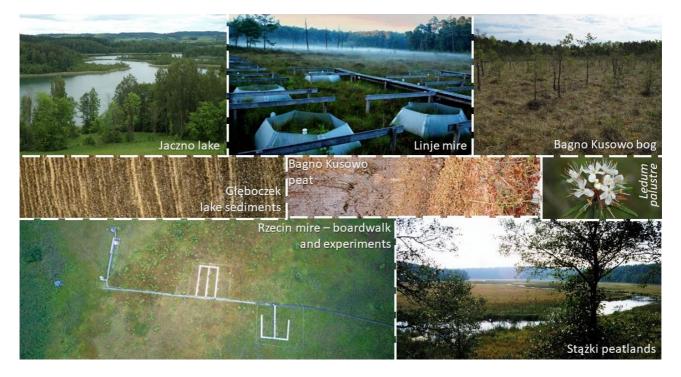
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LWEM website, Facebook

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The excursion will start in Warsaw (1.09.2018) and finish in Poznań (7.09.2018).



42nd International Moor Excursion will explore different landscapes of the young glacial landscape of N Poland, focusing on peatlands and lakes and their Holocene archives. We will present multiproxy high-resolution reconstructions focused on the recognition of the past fire activity, hydrology, land-use change, and vegetation succession in peatlands. Moreover, we will demonstrate two manipulative experiments where we test how warming and drought affect peatland ecosystems, as well as a natural experiment – dramatic impact of a tornado on the forest and wetland ecosystem. This will be the first time for the Moor Excursion that both field experiments and palaeoecological studies will be presented. Furthermore, invited guests will show their new results from laminated lakes located in north-western and north-eastern Poland. This aspect of the excursion is exceptional as those lakes are located in the same basins as our high-resolution records from peatlands.

To get to know the history of the region we will visit the Castle of the Teutonic Order in Malbork – the largest castle in the world measured by its land area. We will also introduce you to some aspects of the Polish culture and folklore, accompanied by the traditional Polish cuisine and beverages.

It is time to Polish your rubber boots! 😊

Topics:

- Origin and development of peatlands along continentality gradient.
- Palaeohydrological changes in peatlands over the Holocene.
- Past fire activity in N Poland and the influence of fire on forests and local vegetation.
- Influence of catastrophic forest disturbances on peatlands.
- Climate and land-use change inferences from laminated lakes.
- Impact of fire and human activities on peatland testate amoeba communities.
- Functional diversity of testate amoebae as a proxy of the past disturbances.
- Linking historical data with high-resolution time series.
- <u>CLIMPEAT</u> experiment at Linje mire and <u>WETMAN</u> experiment at Rzecin mire: influence of manipulative warming and drought on vegetation (*Sphagnum* and vascular plants) and microbial communities.

Proxies: plant macrofossils, testate amoebae, charcoal, pollen, non-pollen palynomorphs, stable isotopes, cryptotephra.



Peatland plants of the excursion sites: 1. *Sphagnum wulfianum*, Suwalski Landscape Park; 2. *Sphagnum squarrosum*, Jaczno kettle bog; 3. *Sphagnum magellanicum*, Mechacz Wielki bog; 4. *Cladium mariscus*, Kojle Lake; 5. *Sphagnum magellanicum* and *S. cuspidatum*, Bagno Kusowo bog; 6. *Sphagnum fallax*, Jaczno kettle bog; 7. *Sphagnum obtusum*, Mechacz Wielki bog; 8. *Betula nana*, Linje mire; 9. *Carex rostrata*, Rzecin mire.

Registration and fee

The excursion is limited to <u>40 participants</u>. <u>Applications until 14.02.2018; fee payment until 30.04.2018</u>. Registration via the excursion e-mail address: intmoorex2018@gmail.com

Costs (covering bus transportation during the excursion, food, hotels, excursion guide):

- regular fee: 750 €,
- first 5 participants who will make a fee payment until the end of December 2017: 700 €,
- 5 first MSc and PhD students who register for the excursion will get a reduced fee: 500 €.

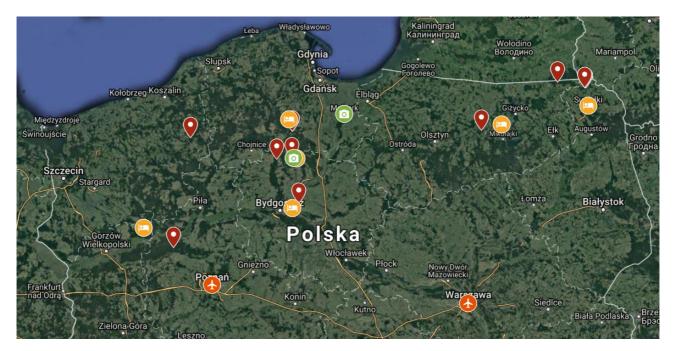
The costs of your travel to Warsaw and back home from Poznań are not included.

Payment: Bank account number: 08 9511 0000 0000 0263 2000 0030 IBAN: PL 08 9511 0000 0000 0263 2000 0030 SWIFT: GBWCPLPP Address: Polskie Towarzystwo Limnologiczne, Lwowska 1 LOK. 247, 87-100 Toruń, Poland Transfer title: please include your name in the transfer title

Logistics

We start our excursion in Warsaw and finish in Poznań. Both cities possess many international flights and train connections with most of the European destinations.

Excursion map



You can access an interactive map via link: https://tinyurl.com/intmoorex2018

Preliminary program

Saturday, 1.09.2018

Arrival in Warsaw

- ca. 14 h Meeting at the Chopin airport and main train station Transfer to Suwałki (NE Poland)
 - 20 h Welcome dinner

Sunday, 2.09.2018 – Suwałki lake district

- 8 h Departure
- 8:30 h Jaczno mire and Kojle fen environmental history (Katarzyna Kajukało, Mariusz Gałka, Katarzyna Marcisz, Mariusz Lamentowicz)
 Jaczno laminated lake land use changes and lake eutrophication in the last 200 years (Wojciech
- Tylmann) 12 h Lunch
- 14:30 h Mechacz Wielki raised bog Baltic bog palaeohydrology, succession and climate change during the last 2000 years (Mariusz Gałka, Mariusz Lamentowicz)
- 17:30 h Departure to the hotel (Ryn)
- Monday, 3.09.2018 Masuria and Warmia regions
 - 8 h Departure
 - 8:30 h Gązwa raised bog multi-proxy analyses of the bog development in the last 6200 years (Mariusz Gałka, Mariusz Lamentowicz)

- 11:30 h Departure and lunch at the *Fagus sylvatica* range limit
 - 16 h The Castle of the Teutonic Order in Malbork
- 17:30 h Departure to the hotel (Stara Kiszewa)

Tuesday, 4.09.2018 – Kociewie region and Tuchola Pinewoods

- 8 h Departure
- 8:30 h Głęboczek peatland environmental change in the last 5700 years (Katarzyna Kajukało, Katarzyna Marcisz, Mariusz Lamentowicz)

Głęboczek laminated lake and Trzechowskie palaeolake – environmental history, late Allerød-early Younger Dryas climatic change and tephrostratigraphy (Michał Słowiński)

- 12:30 h Lunch
- 15:30 h Stążki peatland complex and Jelenia Wyspa nature trail (Mariusz Lamentowicz, Mariusz Gałka)18 h Departure to the hotel (Tleń)

Wednesday, 5.09.2018 – Tuchola Pinewoods and Chełmińskie lake district

- 8:30 h Departure
- 8:45 h Viewing platform on the area destroyed by a tornado, Martwe lake and peatland impact of a tornado on the forest and wetland ecosystem (Dominika Łuców, Michał Słowiński)
 - 12 h Lunch
 - 15 h Linje mire (*Betula nana* microrefugium), CLIMPEAT experimental site palaeoecological changes in the last 2000 years including hydrology, vegetation, fires and human impact; long-term monitoring; warming and drought experiment focused on microbes response, vegetation change and carbon emission (Mariusz Lamentowicz, Katarzyna Marcisz, Piotr Kołaczek, Michał Słowiński, Monika Reczuga, Bogdan Chojnicki)

17:30 h Departure to the hotel (Ostromecko)

Thursday, 6.09.2018 – Szczecineckie lake district and Noteć Forest

- 8 h Departure
- 10:30 h Bagno Kusowo bog high-resolution history of the last and 4000 years development of one of the biggest and best preserved ombrotrophic bogs in northern Poland (Mariusz Gałka, Mariusz Lamentowicz, Katarzyna Marcisz)
- 13:30 h Transfer and lunch
 - 16 h Rzecin mire, WETMAN experimental site palaeoecological changes including vegetation changes, human impact, insects outbreaks and analysis of historical maps; warming experiments focused on gas exchange, vegetation changes and microbial response (Jan Barabach, Krystyna Milecka, Radosław Juszczak, Bogdan Chojnicki, Dominika Łuców, Monika Reczuga)
 - 18 h Departure to the hotel (Mierzęcin)
 - 20 h Farewell dinner

Friday, 7.09.2018

- 9 h Departure to Poznań
- ca. 11 h Arrival in Poznań (Ławica airport and main train station)

Second circular will follow in April 2018.

