Summer School for Climate-Environmental Research on the Siberian peatlands

"*Peatland Carbon Cycle: From Field to Publication*"

1. General Information

- Organizers: Yugra State University
- Venue: Mukhrino Field Station, Khanty-Mansiysk Autonomous okrug - Yugra, Russia
- Dates: **August 31 – September 9, 2026**
- Total Duration: **10 days** (including arrival/departure days)
- Arrival/Departure: 2 days (logistics)
- Fieldwork: 6 days at the Mukhrino Field Station
- Lab & Results Presentation: 2 days at Yugra State University
- Participants: Up to 16 *early-career researchers* and *PhD* students
- Outcome: Certificate of participation + joint publication in a peer-reviewed journal
- Deadline for participation applications: **May 20, 2026**
- Announcement of approved participant candidates: *June 10, 2026*

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- Language: English

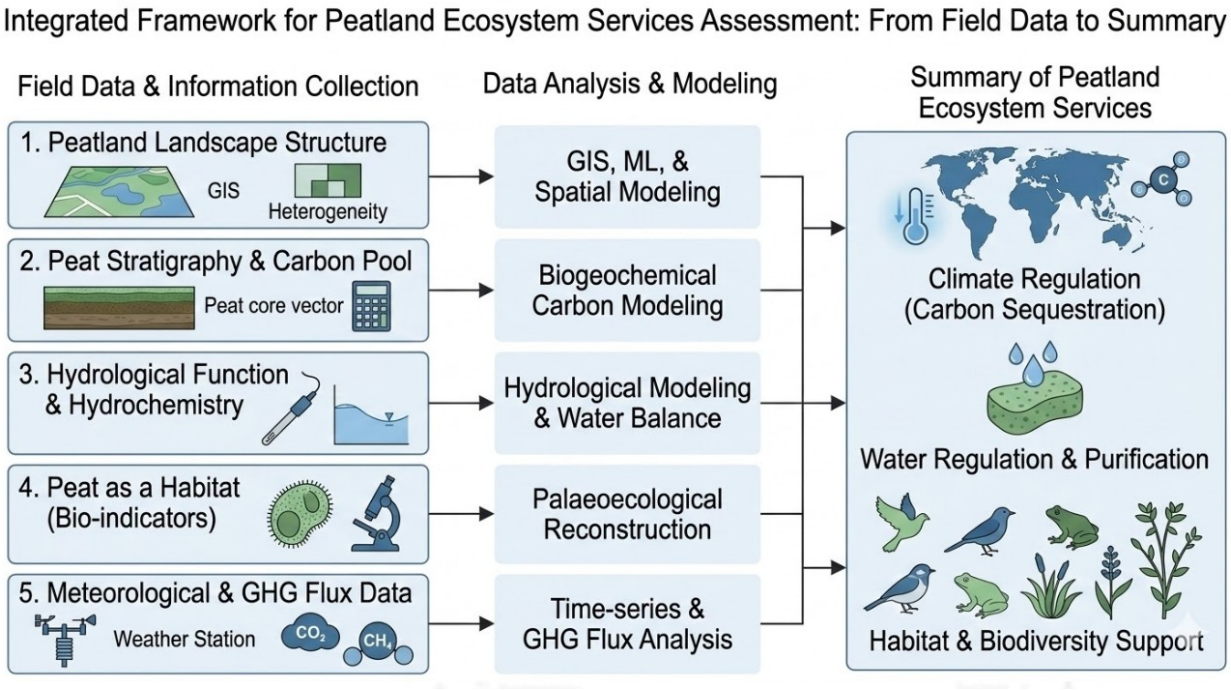
2. Main Objective

To enhance collaboration and methodological alignment in studying the peat–soil–vegetation carbon cycle through integrated field, lab, and data analysis approaches.

3. Thematic Focus

Western Siberia is the most waterlogged territory in the world, containing approximately 40% of the global peat deposits accumulated over the last ~12,000 years. The main object of the Summer School is the peat deposit as a record of environmental change and a key component of the carbon cycle. The program is structured around six interconnected thematic areas, each corresponding to specific field and laboratory methods:

- *Peatland Landscape Structure*: Participants will learn visual description techniques, vegetation mapping basics using GIS, and explore methods for assessing peatland spatial structure and heterogeneity (including machine learning techniques).
- *Peat Stratigraphy and Carbon Pool Assessment*: Hands-on training in peatland structure investigation, peat core extraction, and basic physical-chemical property measurements to calculate carbon accumulation rates and stocks.
- *Hydrological Function and Hydrochemistry*: Field sampling of surface and bog waters, combined with data analysis from the automated data-loggers (EXO-2 and AquaTroll) and monitoring wells to understand peatland hydrology.
- *Peat as a Habitat*: An introduction to using bio-indicators (testate amoebae, plant macrofossils) to reconstruct past environmental conditions and understand the peatland as a living ecosystem.
- *Ecosystem Functions and Services*: A practical overview of methods for assessing peatland ecosystem services, including an introduction to modeling tools for regulating functions such as carbon storage and water regulation.
- *Meteorological Data and Greenhouse Gas Fluxes*: A practical session on processing and visualizing time series: plotting air/soil temperature dynamics, precipitation patterns, solar radiation, air pressure and wind direction and velocity. Participants will also work with greenhouse gas flux data, focusing on calculation routines and graphical interpretation of seasonal trends.



4. Hard-Skills Component

- Basic skills of outdoor work and usage of field equipment for sampling or measurements
- Using open-source GIS and modeling software for landscape review, site selection, mapping and multi-criteria analysis
- Introduction to PeatGraph for peat core visualization and stratigraphic analysis
- Data processing, statistical modeling and visualisation in R for environmental datasets
- Ecosystem services evaluation based on the software of k.LAB Engine and SEEA Explorer

5. Program Structure

Days	Location	Activity
Aug, 31	Travel	Arrival and accommodation
Sept, 1	Yugra State University	Lab sample pretreatment, data analysis with R, peat stratigraphy visualization by PeatGraph, results discussion
Sept, 2	Mukhrino Field Station	Field lectures, field sampling, landscape assessment, proxy selection, carbon cycle studies
Sept, 3		
Sept, 4		
Sept, 5		
Sept, 6		
Sept, 7		
Sept, 8	Yugra State	Lab sample pretreatment, data analysis with PeatGraph & R, results

Days	Location	Activity
	University	discussion
Sept, 9	Travel	Departure

Tutors:

Peatland Landscape Structure: TBD
Peat Stratigraphy and Carbon Pool Assessment: Dr. Dmitrii Sadokov, Peking University, China
Hydrological Function and Hydrochemistry: Dr. Irina Ivanova, Yugra State University, Russia
Peat as a Habitat: TBD
Ecosystem Function and Services: Dr. Aida Lemyakina, ITMO University, Saint-Petersburg, Russia
Meteorological Data and Greenhouse Gas Fluxes: Dr. Egor Dyukarev, IMCES, Tomsk, Russia

6. Outcomes & Deliverables

- Certificate of Completion issued by Yugra State University
- Joint manuscript prepared for submission to the peer-reviewed journal: *"Environmental Dynamics and Global Climate Change"*
- Shared dataset and methodological protocols among participants

This structured program integrates fieldwork, laboratory training, and data analysis, with a clear pathway from sampling to publication. We look forward to launch new, and strengthen the existing, scientific connections, for more profound and fruitful collaboration.

Additional information:

Venue: Russian Federation, Khanty-Mansiysk city and Mukhrino Field Station (Western Siberia), 61.002 N, 69.018 E

Course fee: 65 000 RUR / 900 USD / 750 EUR / 6000 CNY

The course fee includes full coverage of the following essential components:

Inclusions:

- Accommodation for the entire duration of the event
- Internal logistics, including all transfers between Khanty-Mansiysk city and the Mukhrino Field Station
- Meals throughout the program period
- Participation in all academic sessions, fieldwork, and laboratory activities
- Certificate of Completion issued by Yugra State University

Not covered by the fee:

- International and domestic travel to/from Khanty-Mansiysk city (Russia)
- Visa fees (if applicable)
- Personal expenses and insurance

Financial Transparency:

The single participation fee is designed to provide a comprehensive and hassle-free experience, ensuring participants can focus entirely on the academic and research objectives of the Summer School without additional logistical or financial concerns.

Travel and Logistics

Travel to the Course Location:
All participants are responsible for arranging and covering the costs of their travel to and from Khanty-Mansiysk (the nearest city to the field station). The course fee does not include international or domestic airfare.

Recommended Transfer Points:
For domestic connections, transfers within Russia are recommended via the following cities, listed in order of comfort and convenience: Novosibirsk, Surgut (with the option to continue by bus), Yekaterinburg, Ufa, St. Petersburg, Moscow (Sheremetyevo, Vnukovo).

Visa Requirements

For Citizens of the People's China, South Africa, Brasil, Belarus:
A visa is not required for entry into the Russian Federation for short-term stays relevant to the course duration.

For Citizens of Other Countries:
Participants are advised to check and clarify visa requirements for entering Russia well in advance. The organizers can provide a formal invitation letter upon request to assist with the visa application process, but obtaining the visa remains the participant's responsibility.

Application procedure:

To participate to the Field School, you need to:

1. Fill out the electronic form: https://forms.yandex.ru/u/69b25dc64936394082395a5a

   or use the template below and send it to the email: ssc-sibpeat@ugrasu.ru

2. Wait for the results announcement

3. Visit the Mukhrino Field Station

If you have any issues, feel free to contact us via email:

ssc-sibpeat@ugrasu.ru

Promo-movies about Mukhrino Field Station:

https://youtu.be/IldiGzCDABo?feature=shared
https://youtu.be/S7Fo-nDLzHE?si=acfjFClmg3o9kNzk
https://youtu.be/S0QEIHCYnE0?feature=shared
https://youtu.be/hwWpGskAkYI?si=xwzPPSZT4_cgwck_

The life of Mukhrino Field Station:

https://www.flickr.com/people/mukhrinostation/

Welcome to Western Siberia!

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