HEAD INSTITUTES

Karaganda Buketov University (KBU)

Association for the Conservation of Biodiversity of Kazakhstan Severtsov Institute of Ecology and Evolution of the Russian Academy of Sciences (IEE RAS)

ORGANISING TEAM

- Yerkeblan Tazhbaev, Doctor of Science, Corresponding Member of the National Academy of Sciences of Kazakhstan, Vice-rector for research, KBU
- *Alexei Tiunov*, Doctor of Science, Corresponding Member of RAS, head of laboratory, IEE RAS
- Konstantin Gongalsky, Doctor of Science, Professor RAS, head of laboratory, IEE RAS
- Asel Zhumina, PhD, Associate Professor, dean of Geography and Biological faculty, KBU
- Aidar Aitkulov, PhD, Associate Professor, KBU
- *Margarita Ishmuratova*, PhD, head of laboratory, Professor-researcher, KBU
- Maxim Shashkov, senior researcher, KBU
- Kundyz Nurlybaeva, PhD, Associate Professor, KBU

Secretariat

- *Natalya Ivanova*, PhD, senior researcher, Institute of Mathematical Problems of Biology RAS
- Anastassiya Fedorova, KBU

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KEYNOTES, TRAINERS, AND MENTORS

Helen Phillips, PhD, Assistant Professor, University of Helsinki, Helsinki, Finland

Pallieter De Smedt, PhD, postdoctoral researcher, Ghent University, Ghent, Belgium

Lubomir Penev, PhD, Professor in Ecology, Bulgarian Academy of Sciences, Pensoft Publishers, Sofia, Bulgaria

Elena Razenkova, PhD, research scientist, Wisconsin Department of Natural Resources, Madison, USA

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Evgeniya Plakhkina, PhD Student, Perm State University, Perm, Russia *Anastassiya Fedorova*, Karaganda Buketov University, Karaganda, Kazakhstan

IMPORTANT LOCATIONS



1 — the main building

2 — Biology and Geography Faculty (BGF)

3 — the dormitory

4 — bus stop to the city center

5 — cafe Tagam (around the clock)

6 — supermarket Korzina

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Telegram



iNaturalist bioblitz



SCIENTIFIC PROGRAMME

Monday, August 18, the main building

- **9.30–10.30** Registration
- 10.30-11.10 Opening
- 11.10–12.10 <u>Keynote:</u> *Elena Razenkova* Introduction to SDM.
- 12.10–13.10 Keynote: Helen R. P. Phillips

Understanding the distribution of, and impacts to, earthworm communities across the globe. (on-line)

- 13.10-14.30 Lunch
- 14.30–15.30 Keynote: Tatyana Bragina

Soil zoology research in Northern Kazakhstan: history and results. (on-line)

15.30–16.00 Case study: Pallieter De Smedt

Terrestrial isopods as model organisms to understand soil fauna distribution in a changing world.

- 16.00–16.30 Coffee break (BGF)
- 16.30–17.00 Case study: Anna Geras'kina

Earthworms of the North-West Caucasus: from the field to the model.

17.00–17.30 Case study: Maxim Shashkov

Earthworms of the European part of Russia: literature heritage and citizen science for modelling.

17.30–19.30 *Welcome Party* (BGF)

Tuesday, August 19

The main building

9.00–10.00 <u>Lecture</u>: *Natalya Ivanova* Global Biodiversity Information Facility: outside and inside.

Biology and Geography Faculty

10.00-10.30 Coffee break

10.30–12.30 Practice: GBIF data download, data cleaning.

Advanced: rgbif tools. Artëm Sozontov

Beginners 1, 2: Downloading data via the GBIF interface.

Spreadsheet tools for data cleaning. Natalya Ivanova, Aidar Aitkulov

The main building

12.30-14.00 Lunch

14.00–14.30 <u>Lecture:</u> *Natalya Ivanova* iNaturalist.

14.30–15.00 <u>Lecture:</u> *Andrey Zaitsev* Edaphobase.

15.00–15.30 <u>Lecture & Practice</u>: *Artëm Sozontov* Literature data digitisation.

15.30–16.00 <u>Practice & Lecture:</u> *Evgeniya Plakhkina* Citizen Science projects.

Biology and Geography Faculty

16.00–16.30 Coffee break

16.30–17.30 Practice: Artëm Sozontov

Literature data digitisation using Arachnolibrary tools.

Advanced: Russian language literature.

Beginners 1, 2: Russian language literature.

The main building

17.30–18.30 Keynote: Lubomir Penev

Data papers. (on-line)

18.30-19.00 *Discussion*

Wednesday, August 20, the main building

9.00-10.00 Lecture: Maxim Shashkov

Predictor layers: climate, biotopes and soil.

10.00–11.00 <u>Practice:</u> Maxim Shashkov, Ruslan Saifutdinov, Valeria Adamova, Elena Razenkova

Predictor layers: extracting values and avoiding multicollinearity.

11.00–11.30 Coffee break (BGF)

11.30-12.30 Lecture: Elena Razenkova

Main modelling algorithms.

12.30-14.00 Lunch

14.00–15.30 Practice: Anna Geras'kina

MaxEnt.

Advanced, Beginners 1, 2

15.30–16.00 Case study: Andrey Zaitsev

Modelling earthworm ecological-category distribution reveals their habitat, land-use and environmental preferences.

16.00–16.30 Coffee break (BGF)

16.30–17.30 Keynote: Andrey Zuev

Stable isotope mapping of invertebrate habitats.

17.30–18.00 *Discussion*

Thursday, August 21, Biology and Geography Faculty

9.00-11.00 Practice

Advanced: Maxim Shashkov, Ruslan Saifutdinov, Valeria Adamova, Elena Razenkova

Species distribution modelling in R.

Beginners 1: Anna Geras'kina

MaxEnt.

Beginners 2: Anastassiya Fedorova

Using the iNaturalist app.

11.00-11.30 Coffee break

11.30–12.30 Advanced and Beginners 1. Lecture: Elena Razenkova

Model evaluation.

Beginners 2: Lecture: Natalya Ivanova

Projects in iNaturalist.

12.30-14.00 Lunch

14.00–16.00 Preparing projects

16.00–16.30 Coffee break

16.30–19.00 Presentation of projects

Friday, August 22, Biology and Geography Faculty

- 9.00–11.00 Workshop: Konstantin Gongalsky, Elena Razenkova How to write a scientific paper.
- 11.00-11.30 Coffee break
- 11.30–13.30 Round table: Pallieter De Smedt, Valeria Adamova, Elena Golovanova, Maxim Shashkov
 Invasions of soil invertebrates.
- 13.30-15.00 Lunch
 - **15.30** Departure for Karkaraly biostation

Saturday, August 23

- **10.00–13.00** Field trip to the Lake Shaitankol
- 13.00-15.00 Lunch
- 15.00–19.00 <u>Practice session:</u> Methods for collecting soil invertebrates. Earthworms: *Maxim Shashkov, Anna Geras'kina* Spiders: *Artëm Sozontov, Evgeniya Plakhkina* Woodlouse: *Pallieter De Smedt, Konstantin Gongalsky*

Sunday, August 24

- 10.00–12.00 <u>Practice session:</u> Methods for collecting soil invertebrates. Earthworms: *Maxim Shashkov, Anna Geras'kina* Spiders: *Artëm Sozontov, Evgeniya Plakhkina* Woodlouse: *Pallieter De Smedt, Konstantin Gongalsky*
- 12.00-13.00 Lunch
 - **13.30** Departure for Karaganda