

## 07 JULY (SATURDAY)

**05:30 – 10:00** Arrival and accommodation of the Summer School participants (*TSU Campus “Parus”, 3a, Buyanovsiky Lane, Tomsk*)

**10:00 – 13:00** Registration (*TSU Campus “Parus”, 3a, Buyanovsiky Lane, Tomsk*)

**13:00 – 14:00** Lunch

**14:00 – 17:00** Free time

**17:00 – 19:00** Excursion to TSU (*Museum of Mineralogy, Museum of Paleontology, Zoo museum*)

**19:00 – 21:00** Dinner

## 08 JULY (SUNDAY)

**10:00 – 13:40** Presentation session (*TSU Scientific Library, Small Conference-hall, 34a, Lenin avenue, Tomsk*)

**10:00 – 10:15** Artem Rykun – Doctor, Professor, Vice-Rector for International Affairs welcome speech

**10:15 – 10:45** Terry V. Callaghan – Royal Swedish Academy of Sciences Distinguished Professor; Professor of Arctic Ecology, University of Sheffield, UK; Honorary Doctor of Tomsk State University, RF, Lund University, SE and Oulu University, FI; Head of the SCANNET/INTERACT Network. “Arctic climate”

**10:45 – 11:10** Sergey Kirpotin – Doctor, Professor, Director, Bio-Clim-Land Centre of Excellence, Tomsk State University (TSU). “The mega-transect approach as a research axis for development Siberian Environmental Change Network: World-Class Level in Response to Global Challenges”

**11:10 – 11:40** Coffee break

**11:40 – 12:10** Werner Nel – Ph.D., Associate Professor, University of Fort Hare. Department of Geography and Environmental Sciences “South Africa’s research on landscape and climate interactions in mountain and polar environments: Past, present and future”

**12:10 – 12:40** Kawahigashi Masayuki – Ph.D., Associate Professor, Head of Hydrology Department, Geology and Geography Faculty, Tokyo Metropolitan University “Introduction of TMU”

**12:40 – 13:00** Roberto Cazzolla Gatti – Ph.D., Associate Professor, Biological Institute, Biological Diversity and Ecology Laboratory, Researcher at Bio-Clim-Land Centre of Excellence, Tomsk State University (TSU) “The snow leopard’s kingdom”

**13:00-13:20** Alexey Rudoy – Professor, Bio-Clim-Land Centre of Excellence, Tomsk State University (TSU), «Earth analogues of the channels on Mars»

**13:20-13:40** Andrey Babenko – Professor, Biological Institute, Tomsk State University (TSU), «Soil Invertebrates as Indicator of Terrestrial Ecosystems»

**14:00 – 15:00** Lunch

**15:00 – 17:00** Excursion around Tomsk-city by bus accompanied by the guide

**17:00 – 18:00** Free time

**18:00 – 19:00** Dinner

## 09 JULY (MONDAY)

**06:00 – all day.** Departure from Tomsk to Cheposh (798 km from Tomsk). Stay, excursion and overnight stop on the «Berel» Hostel on the bank of Katun-river.

**19:00 – 20:00** Dinner

## 10 JULY (TUESDAY)

**08:00 – 09:00** Breakfast

**09:00 – 20:00** Departure from «Berel» Hostel to «Kochevnik» Hostel (near Chibit settlement, 323 km from Cheposh ) with excursions along the way: Chuysky tract – one of the most beautiful roads on the planet (“National Geographic”), Lecture-excursion along the way “Late-Quaternary diluvial Floodstreams in the Mountains of Altai” (Prof. Sergey Kirpotin and Prof. Valery Zemtsov) the burial mounds and petroglyphs in Kalbak-Tash (a big natural complex with petroglyphs of

4 historical stages: from Late Neolithic Age (5000-4000 BC) to Turk era (VI-X centuries AD),  
Skythian steals near Inya settlement  
**17:00 – 18:00** Arrival and accommodation on the «Kochevnik» Hostel  
**18:00 – 19:00** Dinner  
**19:00 – 21:00** Banya time

### **11 JULY (WEDNESDAY)**

#### **ALL EVENTS ON THE STATION DEPENDS ON WEATHER CONDITIONS**

**08:00 – 09:00** Breakfast  
**09:00 – 10:00** Departure from “Kochevnik” Hostel Arrival to Kurai Township  
**10:00 – 12:00** Transshipment on the special cross-country vehicles. Rising to Aktru Research Station  
**12:00 – 13:00** Settling and familiarisation with the Station  
**14:00 – 15:00** Lunch  
**15:00 – 15:30** Information from the TSU researchers who will coordinate the field activities  
**15:30 – 16:30** Lecture “Vegetation response to the climate warming in the Arctic” (Professor Terry V. Callaghan, Tomsk State University (TSU))  
**16:30 – 17:10** Lecture “Landscape zones and provinces of Siberia” (Professors Sergey Kirpotin and Valery Zemtsov, TSU)  
**17:10 – 18:00** Lecture “Alpine ecology and biodiversity” (Associate Professor, Roberto Cazzolla Gatti – Ph.D., Biological Institute, Researcher at Bio-Clim-Land Centre of Excellence, TSU)  
**18:00 – 19:00** Dinner  
**19:00 – 20:00** Banya time. Female (Russian sauna)  
**20:00 – 21:00** Banya time. Male (Russian sauna)

### **12 JULY (THURSDAY)**

#### **ALL EVENTS ON THE STATION DEPENDS ON WEATHER CONDITIONS**

**08:00 – 09:00** Breakfast  
**09:00 – 13:00** Excursion to Small Aktru glacier and field data collection on the ecological succession on the retreatment of the glacier. Open-air discussion  
**13:00 – 14:00** Lunch  
**15:00 – 15:30** Information from the TSU researchers who will coordinate the field activities  
**15:30 – 16:30** Lecture “Vegetation response to the climate warming in the Arctic” (Professor Terry V. Callaghan, Tomsk State University (TSU))  
**16:30 – 17:10** Lecture “Landscape zones and provinces of Siberia” (Professors Sergey Kirpotin and Valery Zemtsov, TSU)  
**17:10 – 18:00** Lecture “Alpine ecology and biodiversity” (Associate Professor, Roberto Cazzolla Gatti – Ph.D., Biological Institute, Researcher at Bio-Clim-Land Centre of Excellence, TSU)  
**18:00 – 19:00** Dinner  
**19:00 – 20:00** Banya time. Female (Russian sauna)  
**20:00 – 21:00** Banya time. Male (Russian sauna)

### **13 JULY (FRIDAY)**

#### **ALL EVENTS ON THE STATION DEPENDS ON WEATHER CONDITIONS**

**08:00 – 09:00** Breakfast  
**09:00 – 16:00** Morning: Excursion to Big Aktru glacier and field data collection on the ecological succession on the retreatment of the glacier.  
Lunch time: lunch near the glacier and open-air discussion  
Afternoon: Second part of field data collection on the glacier and way back to the Aktru station  
**17:00 – 18:00** Lecture “Current State of the Altai Glaciers (Russia) and Trends Over the Period of

Instrumental Observations since 1952” (Professor Valery Zemtsov, TSU)

**18:00 – 19:00** Dinner

**19:00 – 20:00** Banya time. Female (Russian sauna)

**20:00 – 21:00** Banya time. Male (Russian sauna)

## **14 JULY (SATURDAY)**

### **ALL EVENTS ON THE STATION DEPENDS ON WEATHER CONDITIONS**

**07:00 – 08:00** Breakfast

**08:30 – 17:00** Long field excursion to the Goluboye (Blue) Lake (Professor Valery Zemtsov, TSU)  
Lunch in the field.

**18:00 – 19:00** Dinner

**19:00 – 20:00** Banya time. Female (Russian sauna)

**20:00 – 21:00** Banya time. Male (Russian sauna)

## **15 JULY (SUNDAY)**

### **ALL EVENTS ON THE STATION DEPENDS ON WEATHER CONDITIONS**

**08:00 – 09:00** Breakfast

**09:00 – 13:00** Morning: Excursion to Taiga forest near the station. Open-air discussion  
(Associate Professors: Irina Volkova and Igor Volkov, TSU) «Bio-Diversity of Invertebrates of the  
Mountain Ecosystems» (Professor Andrey Babenko, TSU)

**13:00 – 14:00** Lunch

**14:00 – 18:00** Lectures in the conference room

**14:00 – 15:00** Lecture “Wet ecosystems of the mountains: history, biodiversity, dynamics in  
changing climate” (Associate Professor Irina Volkova, TSU)

**15:00-16:00** Circulation currents in the Kuray intermountain depression during catastrophic  
release of the Kuray palaeo-lake (Professor Valery Zemtsov, TSU with professor Rudoy)

**16:00-17:00** Lecture “Landscape and climate interaction in the sub-Antarctic: Current  
knowledge, future impacts” (Associate Professor Nel Werner, University of Fort Hare)

**17:00-18:00** Lecture “Living at the borders: adaptation of plants to extreme environments”  
(Associate Professor Igor Volkov, TSU)

**18:00 – 19:00** Dinner

**19:00 – 20:00** Banya time. Female (Russian sauna)

**20:00 – 21:00** Banya time. Male (Russian sauna)

## **16 JULY (MONDAY)**

### **ALL EVENTS ON THE STATION DEPENDS ON WEATHER CONDITIONS**

**08:00 – 09:00** Breakfast

**09:00 – 16:00** Morning: Excursion to the third Aktru glacier and field data collection on the  
ecological succession on the retreatment of the glacier

**Lunch time:** lunch near the glacier and open-air discussion

Afternoon: Second part of field data collection on the glacier and way back to the Aktru station

**17:00 – 18:00** Lecture “WEB-GIS of the Aktru Mountain Glacial Basin: Current State and  
Prospects of the Development” (Associate Professor Alexandr Erofeev, TSU)

**18:00 – 19:00** Dinner

**19:00 – 20:00** Banya time. Female (Russian sauna)

**20:00 – 21:00** Banya time. Male (Russian sauna)

## **17 JULY (TUESDAY)**

### **ALL EVENTS ON THE STATION DEPENDS ON WEATHER CONDITIONS**

**08:00 – 09:00** Breakfast

**09:00 – 17:00 Morning:** “Cushion plants as biodiversity engineers (sampling and analysis of selected areas in Altai and Kurai regions)” (Associate Professor Roberto Cazzolla Gatti with Associate Professor Igor Volkov, TSU)

**Lunch time:** lunch in the field and open-air discussion

**Afternoon:** Second part of field data collection on sampling and analysis of selected areas

**17:00 – 18:00** Lecture “Morphotectonics, history of development and deposits of Devonian depression (south-east of the Altai Mountains)” (Associate Professor Oleg Grinev, TSU)

**18:00 – 19:00** Dinner

**19:00 – 20:00** Banya time. Female (Russian sauna)

**20:00 – 21:00** Banya time. Male (Russian sauna)

## **18 JULY (WEDNESDAY)**

### **ALL EVENTS ON THE STATION DEPENDS ON WEATHER CONDITIONS**

**08:00 – 09:00** Breakfast

**09:00 – 12:00 Morning:** Excursion “Tree diversity in high-mountains (sampling of allometric and diversity data in selected plots around the Aktru station)” (Associate Professor Roberto Cazzolla Gatti, TSU)

**13:00 – 14:00** Lunch

**14:00-18:00** Student’s presentations

**18:00 – 19:00** Departure Dinner

**19:00 – 20:00** Banya time. Female (Russian sauna)

**20:00 – 21:00** Banya time. Male (Russian sauna)

**21:00 –** Cultural Programme: Concert and Discotec

## **19 JULY (THURSDAY)**

**08:00 – 09:00** Breakfast

**09:00 – 18:00** Departure from «Aktru» Research Station to «Berel» Hostel with excursions along the way: Chuysky tract (one of the most beautiful roads on the planet (“National Geographic”))

**18:00 – 19:00** Dinner

## **20 JULY (THURSDAY)**

**08:00 – 09:00** Breakfast

**09:00 – all day** all day Departure from «Berel» Hostel to Tomsk. Arrival to Tomsk and accommodation of Summer School participants (TSU Campus “Parus”, 3a, Buyanovskiy Lane, Tomsk)

## **21 JULY (FRIDAY)**

Departure from Tomsk.

### **ADDITIONAL PART FOR SINGAPORE AND TOKYO PARTICIPANTS**

## **22 JULY (SATURDAY)**

### **ALL EVENTS ON THE STATION DEPENDS ON WEATHER CONDITIONS**

**09:00 – 12:00** Transfer to Kajbasovo station (160 km from Tomsk)

**12:00 – 13:00** Settling and familiarisation with the Station

**13:00 – 14:00** Lunch

**14:00 – 17:30** Excursion to the Ob-river floodplain: “Landscapes and biogeochemistry of the Ob-river floodplain”

**18:00 – 19:00** Dinner

**19:00 – 20:00** Lecture “Geomorphology, structure and landscapes of floodplain on example of the Ob-river” (Professor Sergey Kirpotin, TSU)

### **23 JULY (SUNDAY)**

#### **ALL EVENTS ON THE STATION DEPENDS ON WEATHER CONDITIONS**

**08:00 – 09:00** Breakfast (Kajbasovo Station)

**09:00 – 12:00** Excursion to the Ob-river floodplain: “Vegetation of the Ob-river floodplain”

**12:00 – 13:00** Free time

**13:00 – 14:00** Lunch

**14:00 – 17:30** Excursion to the Ob-river floodplain: “Soils of the Ob-river floodplain”

**18:00 – 19:00** Dinner

**19:00 – 20:00** Lecture “Biodiversity of wetlands on example of the Ob-river” (Professor Sergey Kirpotin, TSU)

### **24 JULY (MONDAY)**

#### **ALL EVENTS ON THE STATION DEPENDS ON WEATHER CONDITIONS**

**08:00 – 09:00** Breakfast (Kajbasovo Station)

**09:00 – 12:00** Morning excursion “Beavers as ecosystem engineers and their negative influence on the Ob-river floodplain”

**13:00 – 14:00** Lunch

**14:00 – 16:00** Transfer to Tomsk

**16:00 – 17:00** Settling in TSU Campus “Parus”, 3a, Buyanovsiky Lane, Tomsk

**18:00 – 19:00** Dinner (TSU Campus “Parus”, 3a, Buyanovsiky Lane, Tomsk)

### **25 JULY (TUESDAY)**

Free day in Tomsk

### **26 JULY (WEDNESDAY)**

Departure from Tomsk

### **PERSONAL EQUIPMENT**

Sleeping bag for to use during the road overnight stay.

Aktru will provide you with bed linen pillow and blanket.

We have a sauna (Banya) and laundry facility.

If the weather is clear and sunny in Altay, the temperature can rise up to +30°C. But after the sunset you will feel like wearing something warm. It can often rain and snow in the Aktru valley in the middle of July. That's why you should have a rain cape, windproof clothes, a warm jacket, a woolen hat and mittens.

On glaciers and slopes even if it is cloudy, the level of ultraviolet rays is very high. You should take sunglasses and sunscreens with high level of protection (not less than 30) and also a chap stick.

It is necessary to take light strong boots preferably made of leather with a soft sole for excursions. You can use trainers on the territory of the center if the weather is dry. If it is damp, you might want to wear rubber boots. It is very important to have some extra woolen clothes in case you get soaked

during the excursion. It will be nice for you to get changed into dry clothes.

If you have problems with health and some chronic diseases, they should not be an obstacle on your way to the country of mountains (except recent heart attacks, strokes, serious thoracic surgeries). You should consult your doctor and if they do not object, you can go. Mountainous air, clean water, herbs, walks in the cedar forest have very good effect on health but do not forget to tell the head of the center or a receptionist about your health problems.

Bring some cash if you want to buy beer or food in a cafe.

## USEFUL INFORMATION

### TAXI

*Name*

*Telephones*

**Такси Яндекс (Yandex Taxi)** 500 000 (available on AppStore and Google Play)

**Такси Максим (Maxim Taxi)** 900 000 (available on AppStore and Google Play)

### RESTAURANTS, CAFES

**Dykhaniye voka (Дыхание вока)**

Address: Lenin avenue, 22

Phone: +7 (3822) 34-99-00

Cuisine: Chinese (and vegetarian)

**Harat's pub**

Address: Istochnaya street, 42

Phone: 8 (3822) 28-25-29

Cuisine: European and BEER (Here you can meet students from all over the world)

**Kruger (у Крюгера)**

Address: Arkadiya Ivanova street, 18A

Phone: 8 (3822) 42-39-03

Cuisine: European (Here you can taste Tomsk fresh BEER)

**Hardie Gardie, grill-bar**

Address: Lenin avenue, 54a

Phone: 8 (3822) 51-09-10

Cuisine: European, Mexican

**Perchini (Перчини), restaurant**

Address: Lenin avenue, 54a

Phone: 8 (3822) 51-15-13

Cuisine: European, Italian

### MUSEUMS

**The Museum of Slavic mythology (Музей славянской мифологии)**

Adress: Zagornaya street, 2/12  
Phone: (3822) 210-333  
Website: [www.slav-museum.ru/in-english/](http://www.slav-museum.ru/in-english/)

**The Tomsk Memorial Museum (history of political repression) (Мемориальный музей «Следственная тюрьма НКВД»)**

Adress: Lenin prospect, 44  
Phone: 8 (3822) 51-29-35  
Website: [www.sledturmknvd.info/o-muzee/](http://www.sledturmknvd.info/o-muzee/)

**The Museum of Wooden Architecture (Музей деревянного зодчества)**

Adress: Kirov prospect, 7  
Phone: 8 (3822) 56-39-53  
Website: [www.culture.ru/institutes/5166](http://www.culture.ru/institutes/5166)

**The Tomsk History Museum (Музей истории Томска)**

Adress: Bakunina street, 3  
Phone: 8 (3822) 65-72-55  
Website: [www.muzeum.tomsk.ru/](http://www.muzeum.tomsk.ru/)

## CONTACTS

**Tatiana Kolesnikova**

Mobile phone +7-913-1042-522

**Sergey Kirpotin**

Mobile phone +7-913-881-9145

## NOTES