

# Inspiring Girls Expeditions

## Girls on Ice Switzerland & Austria

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# Inspiring Girls Expeditions

- first expedition in 1999
- founded by Prof Dr Erin Pettit
- one to several expeditions per year
- over ~300 alumni
- “expeditions at home” since COVID-times



# Inspiring Girls Expeditions



empowering young women through science, art, and wilderness exploration



GIRLS ON ICE - ALASKA



GIRLS ON ICE CASCADES -  
WASHINGTON



GIRLS IN THE FOREST - ALASKA



GIRLS ON ICE SWITZERLAND



GIRLS ON ROCK - COLORADO



GIRLS ON WATER - ALASKA



GIRLS IN ICY FJORDS - ALASKA



GIRLS ON ICE AUSTRIA

# Inspiring Girls Expeditions



## Our Team



**ERIN PETTIT**  
Glaciologist, Founder and Director Inspiring Girls Expeditions, Steering Committee Member

**SARAH CLEMENT**  
Program Coordinator, Steering Committee Member

**JOANNA YOUNG**  
Glaciologist, Director of Alaska Programs, Steering Committee Member

**RYAN BROWN**  
Program Coordinator, Steering Committee Member

**CASEY BROWN**  
Wildlife Biologist, Steering Committee Member



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Glaciologist, Co-founder Girls on Ice Switzerland, Steering Committee Member

**JESSICA BADGELEY**  
Glaciologist, Steering Committee Member, Alumna

**MARIJKE HABERMANN**  
Software Engineer, Co-founder and Director Girls on Ice Switzerland

**CECELIA MORTENSON**  
Mountain Guide, Instructor

**CLAUDINE HAURI**  
Oceanographer, Co-founder Girls in Icy Fjords



**CHRIS CARR**  
Glaciologist, Instructor

**ALEX RAVELO**  
Marine Biologist, Co-founder Girls on Water, Instructor

**KIM MCNETT**  
Sea Kayak Guide, Instructor

**EMILIE SINKLER**  
Glaciologist, Instructor

**BRITA IRVING**  
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**ERIN GROVER CUTTS**  
Guide, Co-founder Girls on Water

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Instructor, Marine Biologist

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Mountain Guide, Adventure of Science

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Geomorphologist, Instructor

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Geophysicist, Onsite Coordinator

**JUSTINE SCHMIDT**  
Kayak Guide

**COURTNEY BREST**  
Science Outreach Coordinator, Onsite Coordinator



**MUHABBAT SODIKOVA**  
Adventure of Science Instructor - Uzbekistan

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Polar Specialist, Instructor

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Geologist, Instructor

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Glaciologist, Onsite Coordinator

**ISOBEL PHOEBUS**  
Wildlife Biologist, Instructor and Volunteer



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Geophysicist, Instructor

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Ecologist, Program Administrator

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Geologist, Instructor

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**EMILY MORROW**  
Student Outreach Assistant



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Chemical Ecologist, Co-founder Girls on Rocks

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Kayak Guide

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Geographer, Workshop Coordinator Girls on Ice Switzerland

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Assistant Coordinator, Alumna



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Ecologist, Co-founder Girls on Rock

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Geomorphologist

**HOLLY DEAN**  
Experiential Learning Librarian, Program Support

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**LAUREN BAINS**  
Coordinator, Physicist



**YVONNE SCHAUB**  
Geographer, Board member Girls on Ice Switzerland

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Chemist, SNF AGORA Project Lead

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Oceanographer, Onsite Coordinator

**RACHAEL MALLON**  
Biologist, Onsite Coordinator



**AMY BISHOP**  
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Mountain Guide

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Glaciologist, Co-founder Girls on Ice Canada

**MAY GUAN**  
Cold Regions Hydrologist, Instructor

**HALEY JOHNSTON**  
Alpine Guide, Onsite Coordinator



**MERRIE-BETH BOARD**  
Mountain Guide

**STEPHANIE O'DALY**  
Oceanographer, Onsite Coordinator

**KATLYNNE SCHAUBERG**  
Mountain Guide

**JOCELYN HIROSE**  
Resource Conservation, Co-founder Girls on Ice Canada

**MARTINA BARANDUN**  
Glaciologist, Founder and Co-director Adventure of Science

and others...

# Our goals



- Increase young women's **self-efficacy** and **interest in pursuing science** (specifically MINT)
- Create **lifelong advocates** for the scientific process and its role in public policy
- Teach **critical thinking** skills
- Enhance **leadership self-confidence**

# Our teaching philosophy



- Teaching **the whole process of science** gives students ownership of the science
- Teaching to **the whole student** puts science into context
- **Diversity of ideas** inspires new approaches and better, more robust science

# Teaching philosophy – Science immersion



## The whole process of science

- The expedition participants **interact and explore the alpine setting first**, before we present theories of other scientists
- They make their **own observations** and formulate questions to design their **own experiment**
- Guidance through the whole process **from observation to communication of the new knowledge** gives them **ownership** of the science



# Teaching philosophy – Science immersion



## The whole student

- Science is an **integral part of life**, like physics concepts when introducing anchors for safe glacier travel.
- Science connection with life is often facilitated by the **art-science link and open discussions** of the philosophy of science and its role in society.
- Offer a **tangible connection** to the scientific process and **natural processes** around us.





# Teaching philosophy – Science immersion



## Diversity of ideas

- The larger the **variety of questions** asked, the higher the chance of getting major new discoveries.
- **Diversity benefits** the entire scientific community, as well as individual opportunities.
- We **encourage all ideas** to be heard and discuss the view through different 'lenses' based on past experiences.



# Expedition structure



**11 days**

**9 participants (15-17 years old)**

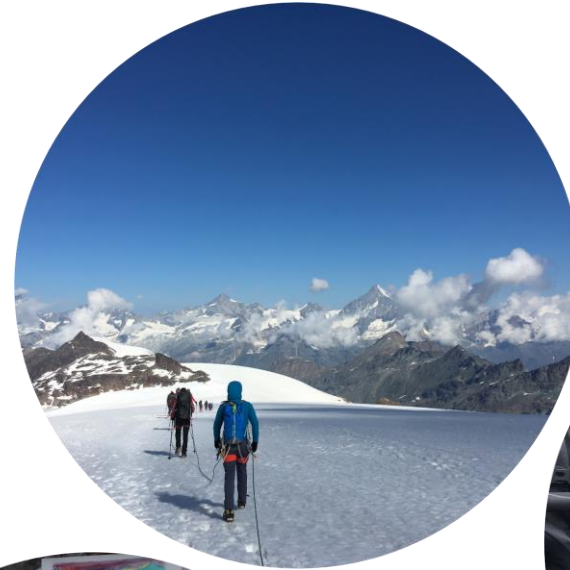
**3-4 instructors**

**1 mountain guide**

**1 artist**

**2 visiting scientist**

**no prerequisites, tuition free**



# Expedition structure



- D 1: Arrival, getting to know each other, overview of the program, handing out material, camp.
- D 2: Hike to base camp. Encouraging questions and observations of landscape and vegetation during the hike.
- D 3-8: Exploration of the glacier and the moraine, science-experiments, visiting scientists, peak-day.
- D 9: Break down camp, meet with gear fairies, hike down and take train to research institute
- D 10: Gather and analyse science project results, prepare presentations, reflection, gear sorting.
- D 11: Final activities. one-on-one feedback. Highlight: public presentation of results, farewells.

# Core expedition elements



- Daily tasks
- Physical, social and intellectual challenges
- Question of the day
- Scientific experiments

# From Glacier to Classroom



## Peer-to-peer communication to foster curiosity in science

- The participants are the best communicators of their new perception
- Can be an eye-opener for the other students in how they see and perceive science



## Aims

- Broaden our target group by directly reaching students of all genders from different schools and classes
- Increase the support network for students



# summary



- **empowering young women through science, art, and wilderness exploration**
- **tuition-free thanks to diverse partnerships, sponsorships and grants**
- **explore beyond the common social environment & role models**
- **immerse into science**
- **get out of the comfort zone**
- **peer-to-peer science communication**



thanks for listening



...and for your support

