

Welcome to a Special Event!

Taking PolarTREC to the Classroom and Beyond
Reflecting on the Experience



20 November 2019

STEM Experience Reports

These reports succinctly summarize teachers' professional benefits of the field experience, a description of field activities, and a classroom implementation plan. Reports are designed to target an audience of funders, researchers, and future participants. Researchers associated with PolarTREC expeditions will be able to utilize the reports to communicate their science and as a tool to share their broader impacts activities.

STEM Experience Report - Michael Penn



[View Full Report](#)

Never, in my 27 year career as a teacher, have I had so many students so interested and enthusiastic in so

Learning Resources

PolarTREC Learning Resources is a collection of articles, lessons, activities, interactive media, and more for educators, families, students, or anyone interested in teaching or learning more about the science of the Arctic and Antarctica.

A majority of the resources have been contributed by educators that have participated in the PolarTREC program. In particular, lesson plans written by the PolarTREC alumni have been vetted and tested. Many of these resources have been aggregated into "Collections". The collections are a chance to find all types of resources that all pertain to a specific discipline or location.

We encourage you to explore the many resources using the search interface below.

Please email info@polar trec.com if you have any questions, suggestions, comments, or issues with the resources.

Displaying 1 - 50 of 1521

Search

Items per page

50

Date	Title	Resource Type	Author	Region
10 April 2019	PolarConnect Event with Kim Young and the Winter Respiration in the Arctic Team	Event	Judy Fahnestock	Arctic
26 March 2019	2019 Meet and Greet Webinar	Event	Judy Fahnestock	
13 March 2019	Investigating Penguin Populations of Antarctica	Lesson	Bridget Ward	Antarctic

Filter by Type

- Article (332)
- Web Link (303)
- Event (235)
- Lesson (217)
- Video (210)
- Activity (58)
- Presentation (58)
- Report (39)
- Audio (27)
- Fast and Fun Fact (18)
- Polar Profile (16)

Filter by topic:

- Polar Science (308)
- Earth Science (258)
- Life Science (252)
- Physical Science (144)
- Polar Careers (128)
- Environmental Studies (121)
- Archaeology and Anthropology (46)
- Engineering (26)

The 2019 Arctic Cohort

STEM at the Poles! www.polartrac.com

Follow Expeditions • View Resources • Live Connections

STEM at the Poles takes audiences on a polar science adventures through PolarTREC. You could be virtually transported to an icebreaker in the Amundsen Sea, a remote field camp in Alaska, or an archipelago of islands in the high Arctic. Experience the excitement of the polar regions by reading journals, looking at pictures, watching videos, and interacting with educators and researchers working in the polar regions by asking questions online and joining PolarConnect live events from the field.

Join the 2019-2020 PolarTREC educators on their ARCTIC expeditions!

PolarTREC is funded by the National Science Foundation Office of Polar Programs and managed by the Arctic Research Consortium of the United States. For more information, visit us online or e-mail info@polartrac.com

- E Educator, School or Organization, State
- R Researcher, Institution, State
- D Expedition Dates
- L Expedition Location

Northern Chukchi Integrated Study

E Piper Bonifant-Browne, St. Thomas Aquinas High School, NH

R Lee Cooper, University of Maryland, MD

D 29 July 2019 to 24 August 2019

L USCGC Healy, Northern Chukchi Sea

Phenology and Vegetation in the Warming Arctic 2019

E Ale Martinez, Memorial Junior High, TX

R Steve Oberthur, Florida International Univ., FL

D 6 June 2019 to 4 July 2019

L Ullungvik & Toolik Field Station, Alaska, USA

WOSAC

E Katie Gavenus, Center for Alaskan Coastal Studies, AK

R Anne Gold, University of Colorado, CO

D 18 September 2019 to 24 October 2019

L Ship-based, Arctic Ocean

Ice and Carbon in Siberian Forests

E Amanda Rutkowski, Saratoga Stem School, NY

R Jennie Delgado, Western Colorado Univ., CO

D 14 June 2019 to 14 July 2019

L Cherski & Yakutsk, Russia

WSP Arctic Change and Education

E Monica Nuffer

R Craig Tweedie, Univ. Texas, @ Faso

D 13 July 2019 to 17 August 2019

L Ullungvik, Alaska, USA

Carbon in the Arctic

E David Walker, LASA High School, TX

R Rose Criss, University of Michigan, MI

D 2 June 2019 to 29 June 2019

L Toolik Field Station, Alaska, USA

Drinks Snow and Nitrogen in the Arctic 2019

E Kate Steepack, Lennox Academy, CA

R Doris Brel-Harris, University of Alaska, AK

D 25 July 2019 to 17 August 2019

L Toolik Field Station, Alaska, USA

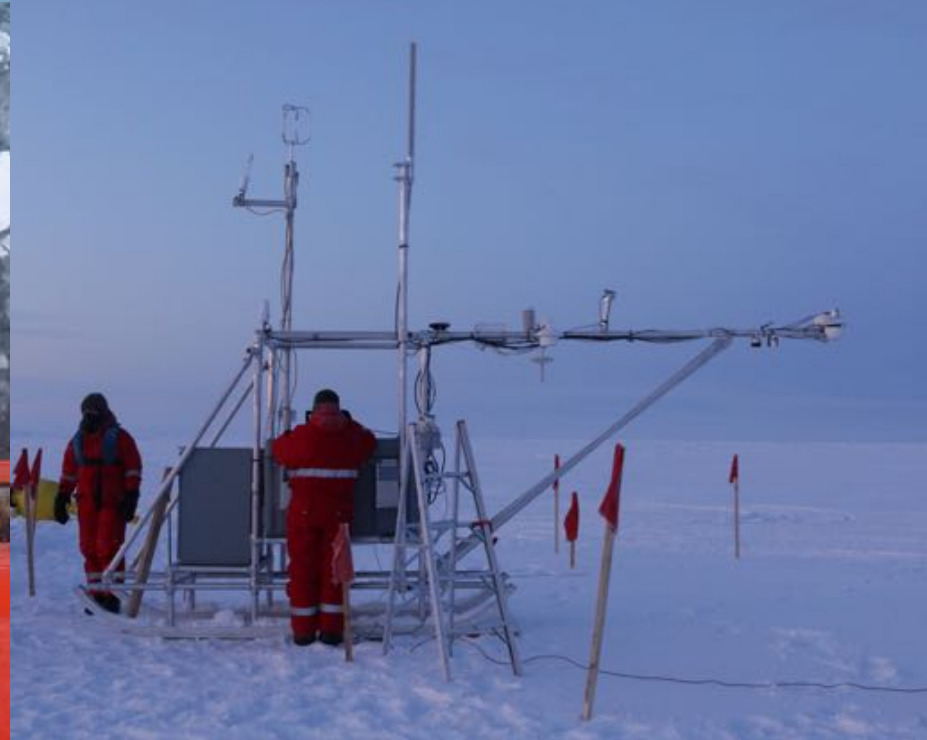
www.polartrac.com

MOSAiC Expedition Central Arctic Ocean

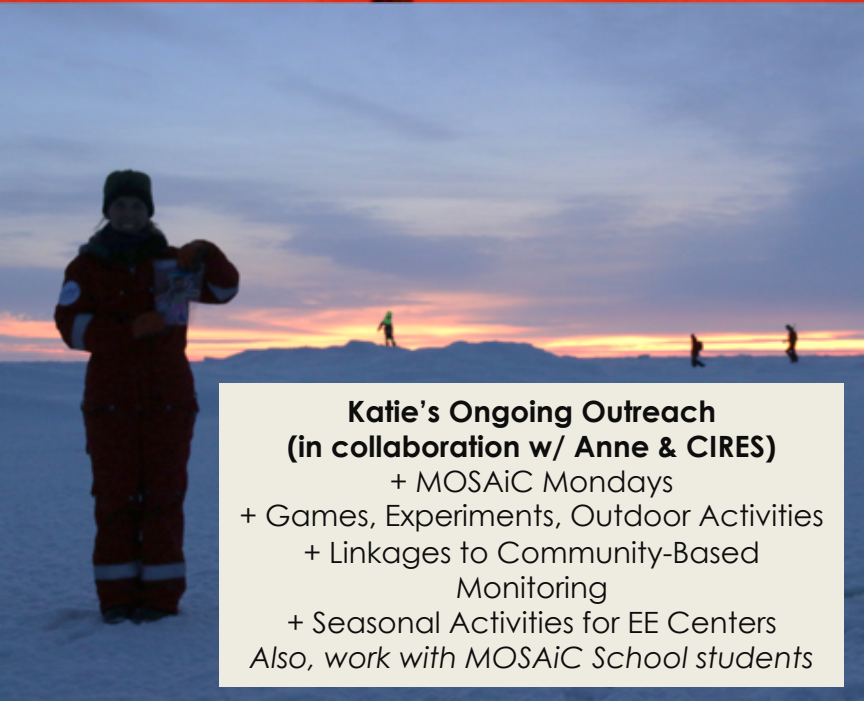


The Educators:

Falk Ebert (Germany), Katie Gavenus (US), Anne Gold (US),
Freiderike Kruger (Germany) & Lisa-Marie Heusinger (Germany)



The 'Met Sled' Research Team, mostly from U of Colorado:
Sean Horvath, Ola Persson, Chris Cox, Anne Gold, Matt Shupe (not
pictured)
and MOSAIC School Students, including Tatiana Matveeva



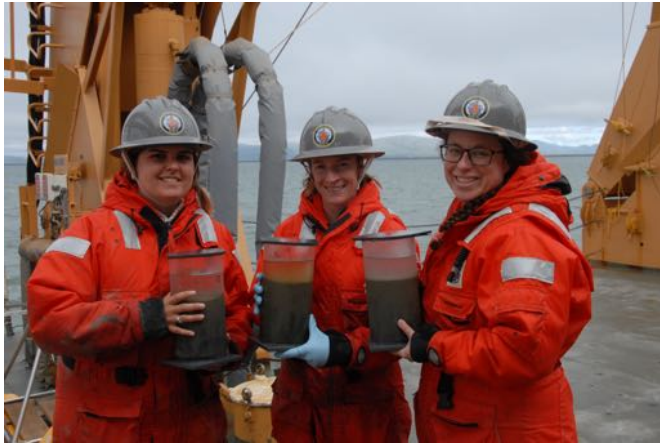
Katie's Ongoing Outreach (in collaboration w/ Anne & CIRES)

- + MOSAIC Mondays
 - + Games, Experiments, Outdoor Activities
 - + Linkages to Community-Based Monitoring
 - + Seasonal Activities for EE Centers
- Also, work with MOSAIC School students*

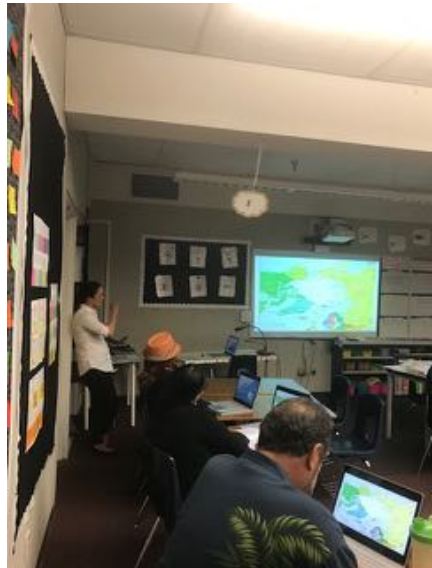


The Northern Chukchi Integrated

Study



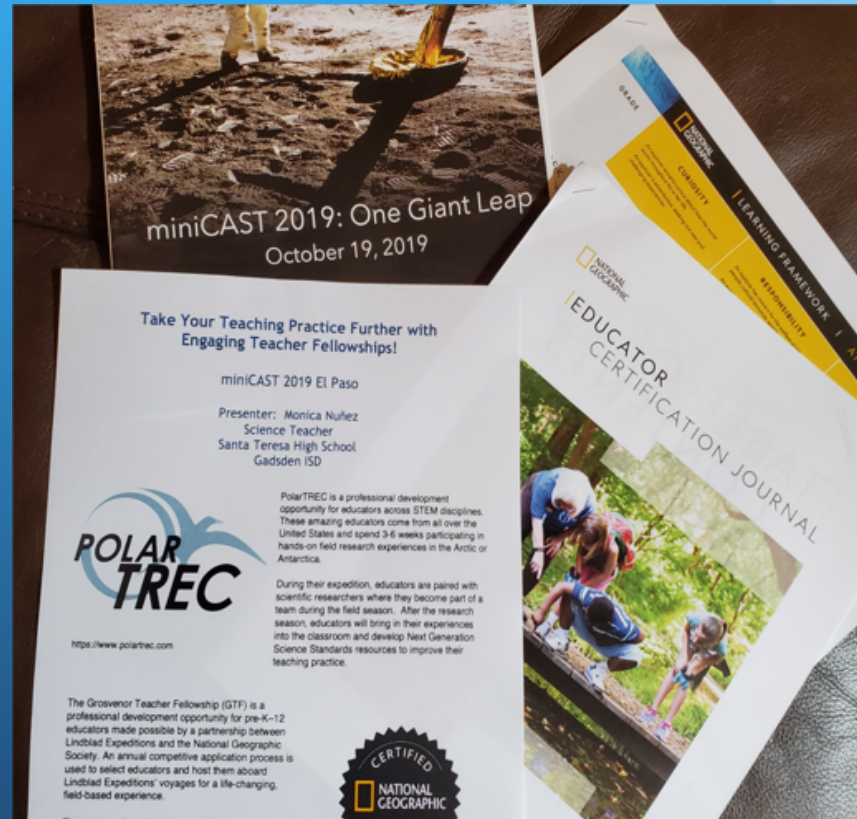
Shrubs Snow and Nitrogen in the Arctic 2019 – Kate Steeper



UTEP Arctic Change & Education Northern Alaska



Polar TREC Fellow: Monica Nuñez
Principal Investigator: Dr. Craig Tweedie



Presentation materials for our local miniCAST 2019 science conference in El Paso, TX.

Carbon and Fire in Siberian Forests





LIVE FROM THE ARCTIC WITH DR. ROSE CORY!

06:23:42
hours minutes seconds

SPECTRUM NEWS
Local Science Teacher Goes to Arctic for Research Program
BY JANE CHAMBERS, AUSTIN

14 TONY HILL'S BEANS, THE FOUR PROTEINERS 15 BEST BATTERED WELLS, BUCKLE UP, LITHIUM CHECK 20 THE TROUBLE WITH MONKEYS, FEEL IN LOVE IN AN ELEVATOR

ATPE News

HEADLINES
From Across the State

AUSTIN MONITOR
Friday, May 31, 2019 by Tai Moses
Teacher heads to the Arctic to bring climate science home

Austin teacher traveling to the Arctic Circle

KVUE abc



Orgo Challenge
Question 1

Link in bio.
Bottom of page.



This Austin Teacher Spent A Month In The Arctic To Better Teach His Students About Climate Change.

DAVID WALKER
LASA HIGH SCHOOL SCIENCE TEACHER

PERMAFROST IS SOIL THAT HAS BEEN FROZEN FOR AT LEAST:

1 year

2 years

3 years

4 years

Got the fly rod out yesterday!

Postcard Challenge: Who can name this fish species?

Type something...

What Does Thawed Permafrost Smell Like?

DR. ROSE CORY
PRINCIPAL INVESTIGATOR

THE FURY OF GLOBAL WARMING
Scientists Got A Whiff Of Thawed Permafrost And Explain What It Smells Like

Carbon in the Arctic
David Walker - Toolik
Field Station

Reflections & Reports

A chance to hear from YOU!

- Implementation in the classroom
- Updates on outreach and lesson plans
- Highlights of challenges, surprises and successes
- Future plans to collaborate with the cohort and research teams

Resources & Reminders

- Finish any program requirements (vet lessons & STEM reports with researchers)
- Researchers can view profile of teacher and see progress and share
- Funding to those that finish requirements