

MEEA 2018 Conference Concurrent Session Summaries
Friday March 23, 2018
All presentations are subject to change without prior notice.
Updated 1/26/2018

Know the Facts : Room B135

Spiders: Facts and Myths

Lauren Kerzicnik, Montana State University

9:00 a.m. to 9:45 a.m.

Spiders are one of the most controversial and feared subjects. It is important to focus on outreach and fact-based evidence on these arachnids to reduce fears and to increase awareness. There is a significant amount of misinformation in the media and public about spiders. This talk will focus on common myths, misdiagnosis of spider bites, and common spiders in Montana.

Effects of Wind Farms on Bats & Birds

Kristina Smucker, Montana Fish, Wildlife and Parks

10:00 a.m. to 10:45 a.m.

Montana ranks among the top five states for wind energy potential. Wind is an appealing option for green energy production but poses threats to wildlife: bird and bat collisions, disturbance at nests and habitat fragmentation. Montana Fish, Wildlife and Parks comments regularly on wind farm proposals and part of our job is to provide science-based recommendations on how to minimize negative effects. In a unique opportunity, the department is on the ground monitoring wildlife impacts at a wind farm near Geysers. I will share results and discuss how direct experience is changing our approach to consultations.

Mining and the Environment

Rayelynn Brandl, Clark Fork Watershed Education Program

11:00 to 11:45 a.m.

Mining is an essential part of our economy, both local and global. How can we ensure a legacy of 'AND'? Is it possible to have a healthy mining economy AND a healthy environment?

Discover Glacier Through Science and Culture

Melissa Sladek, Crown of the Continent Research Learning Center

Sarah Lent, Glacier National Park

1:30 to 3:00 p.m.

Glacier National Park's "Work House" Science and Indian Education Curriculum, combines traditional stories from the Blackfeet, Salish, Pend d'Oreille and Kootenai, with hands-on lessons that consider various perspectives about the landscape and stewardship. Join us to build models that shape mountains, erode rivers, and carve out valleys.

Share the Curriculum: Room B136

Carbon & Climate: a Project Learning Tree online Curriculum

Liz Burke, National Forest Service

9:00 to 9:30 a.m.

Perhaps more than any other environmental issue, the topic of climate change challenges science teachers to accurately convey data, reveal assumptions, and engage critical-thinking skills. Designed for 6th-8th grade teachers, Carbon & Climate provides activities and resources to help educators meet these challenges, introducing students to some of the complex issues involved in climate change.

Hands on with Fossils

Elizabeth Green, Montana Outdoor Science School

10:00 to 10:45 a.m.

Do you want to approach the topic of Fossil Fuels with your students, but hesitate because it's one of those tricky topics? How do you get kids to understand the impact that burning non-renewable fuel has on our environment without getting political or making value judgements? Join Montana Outdoor Science School to learn how we approach the topic of fossil fuels: what types of conflicting information students have, issues surrounding the topic, and hands-on activities that allow students to draw their own conclusions. You will leave this session feeling confident in teaching the subject to your students and with lesson ideas to get you started!

Navigating a Changing World: Climate in the Classroom

Stephanie Fisher, Montana Natural History Center

11:00 to 11:45 a.m.

In conjunction with the Montana Natural History Center and the University of Montana, a UM Environmental Studies graduate student will share newly created resources exploring concepts of teaching climate change. This presentation seeks to share ideas about teaching climate science while balancing real-world challenges with hope and potential solutions. Participants will receive newly developed resources during the session intended to inspire action while providing access to local expert knowledge. The adaptive video series and supporting materials specifically explore: earth's geologic history, changes in biodiversity over time, the role of ethics and science in the Anthropocene, business innovation, biomimicry, and climate change solutions. This videography project is a culmination of graduate research stemming from close collaboration between the non-profit sector and high school teachers.

Developing students' environmental science literacy through physical, conceptual, and computational modeling of groundwater contamination at a Montana Superfund site.

Agatha Podrasky & Beth Covitt, spectrUM Discovery Area

1:30 to 3:00 p.m.

The Comp Hydro project integrates key practices of place-based environmental science education with computational and quantitative science in authentic and innovative ways. For students to develop the quantitative model-based reasoning capacity necessary for citizenship decision-making, their learning experiences need to reflect practices of real world science- including computational modeling of Earth systems. Join us to learn about and participate in NGSS-aligned physical and computational modeling activities from the Comp Hydro curriculum, which engages high school students in training as hydrogeologists and then applying their new knowledge and practice by developing remediation plans for groundwater contamination at the East Helena superfund site.

Be The Change: Room B137

A Circle to Fit All: Creating Equitable & Inclusive Environmental Education

Owen Carroll, Yellowstone Forever

9:00 to 9:45 a.m.

The United States is a diverse nation, and is predicted to become more so. As such, there is a need for environmental education that is relevant to and accessible to many demographics. This workshop will introduce the concepts of equity and inclusiveness, promote constructive dialogue, and explore some simple methods for integrating these into environmental education.

Testing the Waters

Deb Fassnacht, Watershed Education Network

10:00 to 10:45 a.m.

Have you ever wanted to engage students or the community in real citizen science? The Watershed Education Network (WEN) has led Stream Team, a citizen water monitoring group for the last 12 years. We will feature Stream Team lessons learned, as well as applications and ideas to share with teachers and natural resource experts. WEN's Stream Team gathered data post-fire on Lolo Creek to determine sediment levels after Lolo Watershed's tree planting trees and restoration efforts. This year, we are gathering baseline data prior to a proposed dam removal and restoration project on the beloved Rattlesnake Creek in Missoula.

Culture and Place: IEFA Outdoors

Carolyn Seiver, Montana Audubon Center

11:00 to 11:45 a.m.

Environmental Education often aims to connect people with place, and connecting with place should also include connecting with culture. The Audubon Naturalists in the Schools (ANTS) program in Billings works with 80 classes from 25 different schools for multiple field trips through the year, and our curriculum is designed around both interdisciplinary, outdoor science and cultural education related to Montana's Native cultures. Learn what this looks like on the ground and take home some ideas for your own program.

STEM in the Environment/Engineering Design

Michelle McCarthy & Bill Stockton, Montana Office of Public Instruction

1:30 to 3:00 p.m.

What are the many ways STEM is used to help our environment? In the process of helping our environments, using local phenomenon, how do we meet the Montana State Science Standards? These questions are pieces of ways to build curriculum that uses best practices for students. The students come up with the questions (inquiry), the students design and build ways to solve problems (engineering), the students resource is close to home (meaningful), and students are the ones collecting the data (practices of science and engineering). Join this sessions to see examples and come up with curriculum that will work in your classroom!