

# 10<sup>th</sup> Annual ~ TEACHING WITH THE OUTDOORS

## Environmental & Field Science Workshop for K-12 Educators

8:30 AM, Friday, May 7 through Noon, Saturday, May 8, 2004

MTU Ford Forestry Center – Alberta, Michigan

### WORKSHOP PROGRAM

#### FRIDAY, MAY 7 (Eastern Standard Time)

**8:30 AM – 4:00 PM** (Meet at Hesterberg Hall at MTU)

##### **(1) Brockway Mountain Raptor Migration**

*Presenter:* Dr. David Flaspohler, MTU School of Forest Resources & Environmental Sciences

*Group Leader:* Pam Schmidt, Western UP Center

Participants will visit several birding sites in the Keweenaw Peninsula as they travel to Brockway Mountain, a hot spot for migrating raptors. The high ridges near the tip of the Keweenaw Peninsula concentrate the flight paths of spring migrants. When winds are out of the south, hundreds or even thousands of migrating raptors can be seen in a single day!

**8:30AM – 4:30 PM** (Meet in front of Rosza Ctr at MTU)

##### **(2) Geology of the Porcupine Mtns** (10am-1pm)

*Location:* Porcupine Mountains State Park

*Presenter:* Robert Sprague, Ranger, Porcupine Mtn S.P.

*Group Leader:* Joan Chadde, Western UP Center

View evidence of igneous rocks (volcanism), sedimentary rocks, and plate tectonics as you gather ideas for classroom field trips to Porcupine Mountain State Park.

##### **Caledonia Mine Tour** (2:00-4:30 pm)

*Location:* Caledonia Mine, Greenland, MI

*Presenter:* Richard Whiteman, Red Metal Minerals

Geology and history of the Caledonia copper mine, collect and identify mineral specimens, explore the underground mine.

**5:00 – 6:00 PM Room Check-in** (main entry)

**6:00 PM Dinner - Dining Room**

##### **7:00-8:30 PM Spiders of the North Woods**

*Location:* Conference Room

*Presenter:* Larry Weber, science teacher, Marshall School

**9:30-11:00 PM** Optional Activities

##### **Spider Walk & Frog Calling**

*Location:* Meet in Dining Room

*Group Leaders:* Larry Weber & Joan Chadde, Program Coordinator, Western UP Center

##### **Workshop Coordinated by**

Western Upper Peninsula Center for Science, Mathematics & Environmental Education

#### SATURDAY, MAY 8 (Eastern Standard Time)

##### **6:15-7:30 AM Canyon Falls Hike**

*Location:* Meet in Dining Room

*Group Leader:* Joan Chadde, Western UP Center

**7:30-8:00 AM** Breakfast – Dining Room

**8:30 AM - 11:30 AM**

##### **(1) Can You Survive a 24-Hour Wilderness Experience With Your Students? (Gr. 4-12)**

*Location:* Dining Room and then outside

*Presenter:* Chuck Delpier, Science & Environmental Studies Teacher, Negaunee Middle School

Participate in hands-on activities that you can do with your students during a 24-Hour Wilderness Experience. Participants should dress for the weather and be ready for three hours of movement as we set up tents, light fires without matches, hang bear ropes, cook on portable stoves, plus some CHALLENGING activities! You will leave ready to implement this program with *your* students!

##### **(2) Teaching A Phenology-based Science Class**

*Location:* Conference Room

*Presenter:* Larry Weber, author of *Backyard Almanac*; science teacher, Marshall School, Duluth, MN.

Participants will learn what, where, when, and why to use phenology, the study of recurring natural events, in a science classroom. Any teacher of any grade level could benefit from this workshop. The workshop will begin indoors, and includes a walk outdoors.

##### **(3) Mathematics in Nature**

*Location:* Back of Dining Room

*Presenter:* Kristan Schuster, math teacher, Hancock HS

Fibonacci numbers, symmetry, patterns...participate in some fun outdoor activities that will enhance your students observation skills and help them to see and appreciate math in the natural world.

##### **11:30 AM - Evaluations**

(Place in the box in the check-in area before leaving.)

**11:45-12:30 PM** Lunch – Dining Room

##### **Workshop Sponsors**

Pictured Rocks National Lakeshore  
Seaborg Center at Northern Michigan University  
Michigan Technological University

