



Date: March 31 - April 1, 2016

Location: Baxter Hotel
105 W Main St
Bozeman, MT 59715

Information Available At: www.montanaeea.org

Thursday, March 31st, 8:30 – 3:30p

Introduction to ArcGIS for Educators, Hans Bodenhamer, Big Fork School

Why should environmental educators learn GIS?

Geographical Information Systems (GIS) can make your students' environmental science and field studies more meaningful. GIS is a computerized mapping system for storing and analyzing data that is spatially referenced to the Earth. GIS has a wide variety of practical applications and is used in many fields including wildlife biology, engineering, forestry, city planning, real estate, marketing, banking, insurance, and many more. GIS is used a primary tool by agencies such as the US Forest Service, National Park Service, and Bureau of Land Management. There are many opportunities for schools that have a GIS program to work in partnership with these agencies. Furthermore, there is a worldwide demand for individuals with GIS skills with over ten thousand current opening and an expected increase in demand during the next decade. GIS can help your environmental science program grow and give your students an advantage in their future.

What will participants learn at the workshop?

The workshop will provide participants with a basic introduction to ArcGIS Online and ArcGIS Desktop. ArcGIS Online can be used from any platform as long as the user can connect to the internet. However, ArcGIS Online is limited in some of its abilities. In contrast, ArcGIS Desktop is a more powerful program used by nearly all local land managing agencies in Montana, but it requires a PC platform. Participants will learn how to navigate and perform basic data analysis in both ArcGIS Online and ArcDesktop. They will learn simple techniques for collecting and importing student collected into ArcGIS Online and Desktop. They will also learn how to import student collected field data into computerized interactive map that can be made into posters, slides, or displayed as interactive web maps.

What will be provided and what will students need to bring?

A computer will be available for each participant to use during the workshop. Participants should bring a flash drive (minimum of 2GB free space) to copy class notes and examples for use after the workshop. GIS is free to all public educators in the United States. Each participant will be given a disk they can use to download ArcGIS onto their computer after the workshop. They will need to copy the license code to activate the program. The code can be copied to the flash drive they bring. Each participant will also be given access to a free ArcGIS Online account that they can activate after the workshop. Each participant should dress for an outside, data collecting excursion that will last approximately 30 minutes.

How can I use GIS in my class?

If your students are in the field they can locate what they are doing on a computerized map. Students in Montana have used GIS to analyze road kill densities, map hiking trails, analyze bird migration patterns, make bathymetric maps of lakes, create vegetation maps, and much, much more. What your students can do with GIS is only limited by their imaginationand your willingness to take the leap!