Grade 5: Module 2A
Expeditionary Learning
Interview with a North Country Ecologist:
Erika Barthelmess

What is your name?
Erika Barthelmess

What is your job description?
I am wildlife ecologist and Professor of Biology at St. Lawrence University in Canton, New York. I research animals that live in the North Country, mostly mammals. I also teach several classes for college students including classes about vertebrate animals (animals with backbones like fish, mammals, birds, reptiles and amphibians) and about conservation. My main study animal is the porcupine.

What do you study now?
Currently, I am studying porcupines. I am interested in basic porcupine behavior and ecology and in how porcupines impact the forests in which they live. Porcupines are really neat animals. They are nocturnal (active in the nighttime), herbivorous (eat a plant-based diet) and long-lived rodents, living up to 23 years in the wild. They also have a very interesting way of protecting themselves using their quills as a form of defense against predators. Porcupine mothers produce one baby each year, called a porcupette.

Why study it?
Porcupines have a hard life. They are active all winter, which requires energy, but their food does not have much energy. They manage to survive by eating bark, which is not very nutritious. To me, porcupines seem a good representation of the North Country because they, like the rest of us, manage to get by with sometimes very little, and yet do just fine. Also, I study porcupines as an example of a species that is impacted by humans. Porcupines are frequently hit by cars. I study road mortality in mammal species to better understand how we can reduce the impacts of human activity, such as driving cars, on animal populations.

Where do you study it?
I conduct research primarily in St. Lawrence County, near Canton. I work in several state forests and also conduct road surveys all over the county.

What fascinates you the most about North Country ecology?
I love the fact that every day I go into the woods, I discover something new. Sometimes I find a new nest site, or discover a plant that porcupines like to eat, or hear a sound that they make that I haven't heard before. I love that to really understand porcupines, I need to understand the forest, and that to really understand the forest, I need to understand the animals that live in the forest, like the porcupines.

What is the best thing about your job?
There are lots of great thing about my job; too many to pick just one. Some of the best things about my job are that I get to spend a lot of time outside in the woods and discover how nature works. I also get to decide what to do each day rather than be told what to do by others, and I get to decide what questions I am most excited to research. I get to use a lot of neat equipment like game cameras and some fancy computer software to figure out the answers to my questions.

What is the worst part about your job?
The worst part about my job is that I have to go to a lot of meetings. A hard thing about my job is that it also takes a long time to get to the answers to my questions, but because I enjoy the work, I don't mind that it takes a long time.

What inspired you to first study science?
I have always loved animals and wanted to be a veterinarian for a long time. In high school, I took a Natural Science class and began to discover the science of ecology. I liked Ecology because it is a very holistic science. I get to use math, chemistry, biology and other disciplines like social science all together to answer questions about how to best take care of the natural world. I can still work with animals, but can do so within the context of how animals operate in nature, which I find very interesting.

What do you do in a typical day?
Another thing I like about my work is that I don't have a "typical" day. My days involve a lot of different activities. In the morning, I might spend several hours in the woods, trapping, studying and releasing porcupines. Several students help me with this work. Then I go to teach class. After that, I might spend a few hours looking at my data on the computer or writing up results of a research project. In between, I might read some recent scientific articles to help stay current with the work other scientists are doing, or go to a meeting. Each day is different.

What was your first science project/experience as a child?
I don't remember exactly, and I never participated in a science fair, but I did spend a lot of time as a young girl playing in creeks and streams and wandering around in the local woods. I also read a lot of books about nature and animals.

What advice would you give to someone interested in becoming an ecologist?
I would suggest spending time outside and getting familiar and comfortable with what animals and plants live around you. When you see a bird, quiz yourself to see if you can identify it. If you can't, try to figure out the identification with a book or website. Keep a notebook -- draw pictures in it of what you see outside and write down questions about what you see around you. Read books about animals and plants, and see if your parents will take you camping. Try to do well in your math and science classes. Work to improve your writing skills.