



United States  
Department of  
Agriculture

Forest  
Service

Willamette National Forest  
McKenzie River Ranger District

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Date: April 20, 2017

**Natural Resource and Conservation Education Program**

**The F5 Experience: Fur, Feathers, Fins, Flames and Flora: Connecting Youth to the Outdoors**

**To: Pre-school, Kindergarten, Elementary, Middle and High Schools, and Biology, Science, Geography Classrooms; Other Community Organizations with a focus on Natural History, Biology, Science, and Geography.**

Dear Teachers, Instructors and Coordinators:

Again this year the Willamette National Forest will be offering conservation education talks and field trips. Programs are available for pre-school, kindergarten, elementary, middle and high schools and may be of particular interest to Biology, Science, Conservation Education, and Geography classes.

Our Visiting Wildlife Biologist for this year is Leki from Bhutan, who will be coordinating and implementing much of the program. He has worked as a Park Range Officer at Jigme Dorji National Park, which is one of the second largest protected areas in Bhutan. He has more than 12 years of experience in the field of wildlife research and management. Leki has a diploma in Forestry and Wildlife from Natural Resources Training Institute, and later graduated with a Bachelor's degree in Forestry Science from the College of Natural Resources in Bhutan.

Our Nature Watch program, **The F5 Experience**, emphasizes providing outdoor learning opportunities to youth through field trips and active restoration projects. **The theme for 2017 is "Happiness," what Bhutan is officially doing to achieve Gross National Happiness, and how that relates to wildlife conservation. This topic can be included in any of the talks or activities, or be discussed individually.**

During the past eleven years that we have been offering these education programs, many schools and organizations have taken advantage of them, including Baumans Tree Farm, Lane County Audubon Society, the McKenzie schools, Eugene 4J School District, Springfield School District, Jefferson, Camp Creek, Oakhill Schools, Lane Community College, University of Oregon, and Oregon State University.

The attached program flyer provides more information about these programs. Please do not hesitate to contact us if you require more details, or if you have any specific requests. We may be able to also offer programs about other topics such as fisheries, water, botany, archeology and forestry. These programs can be offered at your school or organization meeting place or as field trips on the Willamette National Forest. For more information please contact Leki directly at 541-822-7251 email: [leki@fs.fed.us](mailto:leki@fs.fed.us) or Ruby Seitz [ruseitz@fs.fed.us](mailto:ruseitz@fs.fed.us).

Suzanne Schindler, Acting District Ranger

Date

Enclosure: Education activities offered through September 10, 2017.



Caring for the Land and Serving People

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**The McKenzie River Ranger District of the Willamette National Forest invites you to schedule Conservation Education activities presented by Leki, visiting Wildlife Biologist from Bhutan.**



Snow Leopard at remote camera station in Bhutan. Photo: Leki, 2017 International Visiting Wildlife Biologist.

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### **Forest Ecosystems**

**Grade: all grades**

***Time: 55-60 minutes depending on grade***

This is an exciting and interesting talk with food web games. What is an ecosystem? What things are connected to each other in nature? What are the ecosystem services? How are humans part of the ecosystem and what it provides to us? And how can you get involved and help conserve our live support system?

### **Wildlife Habitat Islands and Forest Fragmentation in Bhutan**

**Grade: all grades**

***Time: 45-55 minutes depending on grade***

This talk discusses shrinking habitat of rare and endangered tigers. How has development affected tiger habitat and other endangered cats? How do roads affect the movement of wild animals? What is genetic isolation? How does habitat fragmentation result in habitat loss? We will have discussions about finding solutions to those problems using wildlife friendly infrastructure.



### **Sally/Sammy the Snag**

**Grades: Preschool-3rd Grade**

**Time: 30-45 minutes depending on grade**

Sally is a Douglas-fir tree that has been hit by lightning and is now “just a snag” or standing dead tree. Students will learn through an interactive puppet show how snags are important to wildlife and how they help maintain a healthy forest. Program includes many wildlife puppets.

### **A Day as a Biologist**

**Grades: 3<sup>rd</sup>-8th Grade**

**Time: 30-45 minutes depending on grade**

Students will learn what it is like to be a biologist. They will explore different types of field work like managing habitats and researching wildlife. Students will also compare how this profession has changed over time.

### **Skulls, Antlers, Horns and Fur**

**Grades: Preschool-4rd Grade**

**Time: 45-55 minutes depending on grade**

Valuable information can be learned about animals from their skulls. Students will learn natural history facts about several animals through actual skulls, antlers and horns in this exciting presentation. Program aligned with National Education Science Standards.

### **Bird Flight**

**Grades: 3rd-6th Grade**

**Time: 45-55 minutes depending on grade**

This is a fascinating talk about how birds use aerodynamic force to lift, fly and land! What makes a bird a bird? Students will learn how birds use different techniques to generate enough airflow around their wings to enhance flight. How did scientists study peregrine falcons to develop the modern rocket to improve maneuverability and speed? Also learn bird identification using feathers under the microscope. At the end of this talk students will design a glider, decorate and give a name to the glider.

### **Weather and Climate Change**

**Grades: 4<sup>th</sup> – 10<sup>th</sup> Grade**

**Time: 35-45 minutes depending on grade**

Climate change is a global issue, and it is very important and interesting to know some facts about it. Students will learn about what may contribute to global warming. Why and how may the earth be warming, and what are possible causes of global warming? How can it influence the vegetation types, migration of wildlife and receding of permanent glacier? They will learn how this may impact economics, the livelihood of farmers, and well-being of downstream communities. How can an individual make a difference in reducing greenhouse gas emissions?

### **Measuring and Monitoring Biodiversity**

**Grades: 4-10th Grade**

**Time: 45-55 minutes depending on grade**

This presentation is about surveying and measuring nature, be it mammal, rodent, bird, macro- or micro-invertebrate. Why should we survey? How we can survey with simple methods? Students will learn what types of method are useful for different kinds of animals (shy, nocturnal, diurnal, crepuscular, pack, active). How can we keep track of wildlife trends and status using the baseline data? At the end, we will conduct some hands-on exercises using maps, camera traps and GPS.

### **Wildlife Tracks and Signs**

**Grades: Preschool-8th Grade**

**Time: 45-55 minutes depending on grade**

Learn about wildlife identification clues. As a forester or wildlife biologist, we should know the species by looking at the tracks and other evidence since most animals are difficult to observe. Students will have a chance to look some of the tracks and signs that we see on the ranger district to gain useful and interesting identification tips. At the end of presentation, students will learn to make some tracks using paper and other available materials.

### **Gross National Happiness in Bhutan**

**Grades: 4<sup>th</sup> and older**

**Time: 45 minutes, or a shorter version can be combined with any of the above-listed activities.**

One of the goals of the Bhutanese government is "Gross National Happiness." Learn about the four pillars of Happiness, and how young and old are taught and strive for this goal in the country of Bhutan! Discuss how this might apply to your own life in the U.S.