

# *Lava Beds National Monument*

## *Teacher Activity Guide*

### **Introduction**

This teacher activity guide contains 3 units with 21 total activities. The subject matter includes bird physiology, an introduction to bird field observation, and conservation ethics. All activities are designed for use in the classroom. Each unit contains background information for use by the teacher. Following is at least one activity to be incorporated into the classroom.

Most materials necessary to present these activities have been included in this package. These activities are written a variety of grade levels, but many can be expanded or modified.

The primary goal of this activity guide is to enable the teacher to present information in the classroom before conducting a field trip to the monument. We hope that by using this guide the visit to Lava Beds will be a comprehensive educational experience.

### **Overview of Units**

#### **Unit 1 – What is a Bird?**

##### **Activity 1- What Makes a Bird a Bird?**

Grade Level: 3rd-8th

Learner Objectives

Student will:

- List characteristics of birds
- Compare and contrast contour and down feathers
- Draw and label a bird's contour and down feathers
- Discuss function of feathers

##### **Activity 2- Bird Olympics**

Grade Level: 1st-8th

Learner Objectives

Student will:

- Define “adaptation” in a biological context
- Relate bird adaptations to function
- Identify and describe different adaptations used by birds
- Compare oneself to birds & their adaptations

# *Lava Beds National Monument*

## *Overview of Units*

### Activity 3- Migration Obstacle Course

Grade Level: K-8th

Learner Objectives

Student will:

- Define migration
- List potential hazards that birds face during migration
- Identify ways to help reduce negative impacts on migrating birds

### Activity 4- Lava Beds National Monument Habitats

Grade Level: 3rd-8th

Learner Objectives

Student will:

- Define “habitat” in a biological context
- List the four essential components of a habitat
- Identify habitat components at Lava Beds National Monument

### Activity 5- Petroglyph Point and Owls

Grade Level: 3rd-8th

Learner Objectives

Student will:

- Define petroglyph and pictograph
- Understand adaptation and provide four examples of Barn Owl adaptations
- Identify and classify bones

## **Unit 2 – Birding and Studying Birds**

### Activity 1- Binoculars Bonanza!

Grade Level: All ages

Learner Objectives

Students will:

- Identify and label the features on binoculars
- Demonstrate the appropriate use by properly handling binoculars
- Use binoculars to observe and watch birds

# *Lava Beds National Monument*

## *Overview of Units*

### Activity 2- Bird ID Experts

Grade Level: 1st-12th

Learner Objectives

Students will:

- Determine why field marks are important in identifying birds
- Describe bird field marks using correct names of body parts
- Identify five field marks on a focus bird

### Activity 3- Using Bird Field Guides

Grade Level: 3rd-12th

Learner Objectives

Students will:

- Explore and interpret field guides
- Use field guides when searching for a focus bird
- Describe why a field guide is a critical tool in birding

### Activity 4- Using Plant Field Guides

Grade Level: 3rd-12th

Learning Objectives

Students will:

- Examine field guides
- Use field guides when searching for common plants
- Describe why a field guide is a critical tool in identifying plants

### Activity 5- Birding By Ear

Grade Level: 2nd-12th

Learner Objectives

Student will:

- Identify reasons why birds sing
- Describe functions of bird songs and calls
- Create mnemonic devices for five bird songs

# *Lava Beds National Monument*

## *Overview of Units*

### Activity 6- Counting Birds

Grade Level: 2nd-12th

Learner Objectives

Student will:

- Describe why scientists count birds
- Demonstrate the ability to collect and organize scientific data during a local bird count
- Identify local and native birds

### Activity 7- Raptors Along the Road

Grade Level: 3rd-5th

Learner Objectives

Students will:

- Identify local raptors along the road by three criteria: flight patterns, body shape, and field marks
- Sketch five local raptors using one of the three criteria
- Observe local raptors on a field trip

### Activity 8- Create a Field Journal!

Grade Level: 3rd-12th

Learner Objectives

Students will:

- Create a scientific field journal
- Describe why a field journal is a critical tool when conducting scientific field studies
- Use a field journal to collect data in the field

### Activity 9- Birds and Caves at Lava Beds National Monument

Grade Level: 3rd-8th

Learner Objectives

Student will:

- Learn how the caves at Lava Beds National Monument formed
- Investigate the different animals that use the caves as habitat
- Interpret data and practice journaling skills.

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## *Overview of Units*

### Activity 10- Birds, Plants, and People of the Klamath Basin

Grade Level: 3rd-12th grades

Learner Objectives

Students will:

- Learn about the Modocs' use of birds for food and clothing
- Learn about the use of duck decoys in indigenous cultures and modern cultures
- Learn about the importance of tule as habitat for birds and humans of Lava Beds
- Work with traditional plant materials to create a duck decoys

### Activity 11- Bird Banding Reveals

Grade Level: 3rd-12th

Learner Objectives

Student will:

- Learn what bird banding is and why scientists band birds
- Explore bird banding information on the Bird Banding Laboratory website

## **Unit 3 – Bird Conservation**

### Activity 1- Citizen Science

Grade Level: 3rd-12th

Learner Objectives

Students will:

- Describe how citizen science can help birds
- Research citizen science on-going research projects
- Participate in a citizen science project

### Activity 2- Birding Economics

Grade Level: 7th-12th

Learner Objectives

Students will:

- Research Birding Trails using books, internet, other resources
- Analyze birding statistics and graphs based on birding data

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## *Overview of Units*

### Activity 3- Take Action!

Grade Level: 4th-12th grades

Learner Objectives

Students will:

- Complete the Take Action! Pledge
- Plan a service-learning project
- Create a bird habitat in their schoolyard
- Make observations and record birds that visit the habitat

### Activity 4- Sagebrush Steppe Habitat Assessment

Grade Level: 3rd-8th

Learner Objectives

Students will:

- Learn about sagebrush steppe habitat
- Learn about management issues associated with this habitat
- Conduct a sagebrush steppe habitat assessment

### Activity 5- Fire at Lava Beds National Monument

Grade Level: 3rd-8th

Learner Objectives

Student will:

- Learn about fire ecology
- Learn about fire as a management tool at Lava Beds
- Conduct a site visit at the north end of the park