

The Ouachita National Forest and Its Value to “The Natural State”

*Lesson Plan by Julie Hill, Conway, Arkansas
2001-2002 Butler Fellow*

The preservation and management of the Ouachita National Forest, the South’s oldest and largest national forest, has helped make it possible for Arkansas to remain “The Natural State.” Students will learn how the area developed into a national forest and the importance of retaining the habitats of the plants and animals that live there. Students will also locate the Ouachita National Forest; the Ouachita Mountains Natural Division; and the Caddo, Ouachita, Cossatot, and Little Missouri Rivers on a map of Arkansas.

This lesson will take one to two days, depending on whether students do the research component during or outside of class time. For the “Forest Council” students will research a plant or animal native to the Ouachita Mountains, describe its habitat, and express its value to the region. They will then design their own tourist brochures showcasing the recreational opportunities in the Ouachita National Forest. They will develop an understanding of the value of preservation and forest management, as well as learn specific information about the Ouachita Mountains Natural Division.

Grades: 7-8

Arkansas Curriculum Frameworks:

Arkansas History 1.1.12, 2.1.7, 3.1.13, and 4.1.13

Science LS2.12, LS3.2, and LS3.3

Social Studies TCC1.4, TCC2.1, PPE1.1, PPE2.1, PPE2.4, PPE2.5, PDC1.6, and PDC1.8

Key Terms:

preservation	habitat	ecology
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Key Terms Defined:

preservation: keeping or maintaining for the future.

habitat: the area or natural environment in which an organism normally lives and grows.

ecology: the relationship between organisms and their environment.

Materials:

- A large map of Arkansas, such as a highway map
- A copy of A Partial List of Plants and Animals Found in the Ouachita National Forest for each student (included below)
- Materials for making animal masks
- A tongue depressor for each student
- A piece of copy paper for each student

Background Information:

In 1995 the state legislature made “The Natural State” the official state nickname. The Ouachita National Forest is a valuable component of “The Natural State.” The management and preservation of this great forest provides resources for the people of the state, many recreation opportunities, revenue from tourism, and natural habitats for the plants and animals native to the area.

Millions of years ago pressure in the earth pressed sedimentary rock into ridges and valleys of folded rock, forming what we know today as the Ouachita Mountains. These unique mountains run east and west—the only ones to do so in the U.S.—and extend from central Arkansas 250 miles westward into modern Oklahoma.

Shortleaf and loblolly pine were thick in the forests of the Ouachita Mountains until the late 1800s. From 1879 to 1912 the logging industry cut most of the virgin timber in the Ouachitas. The sawmills exhausted the timber in one area and moved to another area—a process known as “cut out and get out.”

In 1907 President Theodore Roosevelt created the Arkansas National Forest, but logging continued. During the 1920s six large sawmills were operating in the Ouachitas. Many settlers who had moved to this area were unsuccessful at farming and began to work in the timber industry. Sawmills that produced cut lumber employed four times as many workers as wood manufacturers and ten times as many workers as the paper industry.

In 1926 President Coolidge changed the name of the Arkansas National Forest to the Ouachita National Forest. Additional land was added, extending the forest into Oklahoma. Because of uncontrolled hunting, change of habitat, and over-cutting, most of the wildlife was gone from this area by the mid-1920s. The U.S. Forest Service began to work with other state agencies to restore the wildlife to western Arkansas and reforest the land. The Forest Service hired men to work as forest rangers. Their most important job was fire protection. Riding horseback through the forests, they also acted as game wardens and tried to manage the land. Local farmers resisted efforts to alter their traditional activities in the forests, such as yearly burnings to keep the forest open for travel and grazing cattle. During the Depression the federal government provided work in the Ouachita National Forest building roads, bridges, lookout towers, recreational facilities, and buildings, and planting tree seedlings.

During the 1960s, 70s, and 80s Wilderness legislation, Endangered Species Acts, and Wild and Scenic Rivers Acts were passed by Congress to protect public lands across the U.S., including the Ouachita National Forest. In the early 1990s new management plans were agreed upon, and the U.S. Forest Service no longer allows traditional clear-cutting in the Ouachita National Forest. Its main job is now management of the natural systems found within the forest; however, commercial mining and timber harvests are still permitted by the U.S. Forest Service.

The Ouachitas have an abundance of animals, plant life, rich soil, minerals, and clean water. The Caddo, Ouachita, Cossatot, and Little Missouri Rivers are all part of the Ouachita National Forest. People from all over Arkansas, the United States, and the world enjoy the recreational opportunities available in the Ouachita National Forest, the South’s oldest and largest national forest. Sightseeing, hiking, biking, horseback riding, camping, visiting historic sites, swimming, boating, fishing, hunting, and rock hounding (rock collecting) are enjoyed by thousands of people yearly.

Activities:

WARM UP

1. Ask students, “How many of your families camp or enjoy outdoor activities?”
2. Discuss places in Arkansas they have visited or camped and the kinds of activities they did outdoors. Make a list of things they saw in these areas.
3. Give students the “background information” above.
4. Locate the Ouachita Mountains Natural Division on a large map of Arkansas. (See the divisions map below for reference.)
5. Have students locate the Ouachita National Forest and the Caddo, Ouachita, Cossatot, and Little Missouri Rivers on the map of Arkansas.

FOREST COUNCIL

1. Tell students that many animal and plant species are native to the Ouachita Mountains. Either write on the board or give each student a copy of A Partial List of Plants and Animals Found in the Ouachita National Forest (included below).
2. Discuss what happens if the habitats of plants and animals are destroyed.
3. Have students choose a plant or animal from the list to research. They should learn about the habitat of their plant or animal and one or two additional facts, then commit this information to memory. Research can be done in the school library during class or assigned as homework. (The Arkansas Natural Heritage Commission’s website will be particularly helpful: <http://www.naturalheritage.com>*. See also “Recommended Resources and Websites” below.) Be sure to tell students how long they have to complete this assignment.
4. Have each student make a mask of their animal or have a picture of their plant to use during the “Forest Council.” Give each student a tongue depressor to attach to the bottom of his or her mask or picture.
5. If possible, the day of the “Forest Council” have students put their desks in a circle. In turn, each student will hold their mask or picture in front of their face and tell who or what they are, some facts about themselves, their habitat, and why their habitat should be protected. (Stress to the students that this should be a serious situation with only one council member speaking at a time.)
6. Follow with a discussion of preservation and ecology. Discuss how legislation has provided protection for plant and animal habitats in the Ouachita National Forest.

TOURISM BROCHURE

1. Give each student a piece of copy paper and show the class how to fold it into a tri-fold.

* To access links, copy and paste into your browser.

2. Tell the class they are going to design a brochure for the Parks and Tourism Department of Arkansas. They can use the information given earlier, as well as various websites for more detailed information about recreational opportunities in the Ouachita National Forest. One such website is <http://www.hotsprings.com>. Their brochures should have a title, a map of the area, and relevant information for visitors to the Ouachita National Forest.

3. Display a rubric to assess points or a grade for this activity.

Extension:

Many specialists are employed by the U.S. Forest Service, including ecologists, foresters, silviculturists, engineers, range conservationists, firefighters, surveyors, hydrologists, landscape architects, archeologists, soil scientists, fisheries biologists, wildlife biologists, and geologists. Let students research these careers or invite speakers to the classroom to discuss careers in forestry.

Evaluation:

Ask students to write a paragraph about the benefits of management of the Ouachita National Forest.

Sources:

Hunter, Carl G. *Trees, Shrubs & Vines of Arkansas*. Little Rock: Ozark Society Foundation, 1989.

Hunter, Carl G. *Wildflowers of Arkansas*. Little Rock: Ozark Society Foundation, 1984.

James, Douglas A. and Joseph C. Neal. *Arkansas Birds: Their Distribution and Abundance*. Fayetteville: University of Arkansas Press, 1986.

Johnson, Ben F. *Arkansas in Modern America: 1930-1999*. Fayetteville: University of Arkansas Press, 2000.

Lancaster, Bob. *The Jungles of Arkansas: A Personal History of the Wonder State*. Fayetteville: University of Arkansas Press, 1989.

Sealander, John A. *A Guide to Arkansas Mammals*. Conway: River Road Press, 1979.

Smith, Kenneth L. *Sawmill: The Story of Cutting the Last Great Virgin Forest East of the Rockies*. Fayetteville: University of Arkansas Press, 1986.

Smith, Kenneth L. et al., Bill Shepherd, ed. *Arkansas's Natural Heritage*. Little Rock: August House, 1984.

Strausberg, Stephen, and Walter A. Hough. *The Ouachita and Ozark-St. Francis National Forests: A History of the Lands and USDA Forest Tenure*. Asheville, NC: Southern Research Station, 1997.

Williams, Gerald W. *The USDA Forest Service, The First Century*. Washington, DC: USDA Forest Service, 2000.

Recommended Resources and Websites:

Arkansas Natural Heritage Commission

1500 Tower Building

323 Center St.

Little Rock, AR 72201

(501) 324-9619

<http://www.naturalheritage.com>

The Heritage Commission is an excellent source for information on specific plants and animals in Arkansas.

The Ouachita and Ozark-St. Francis National Forests Home Page:

<http://www.fs.fed.us/oonf/>

Ouachita National Forest

Federal Building

P.O. Box 1270

Hot Springs, AR 71902

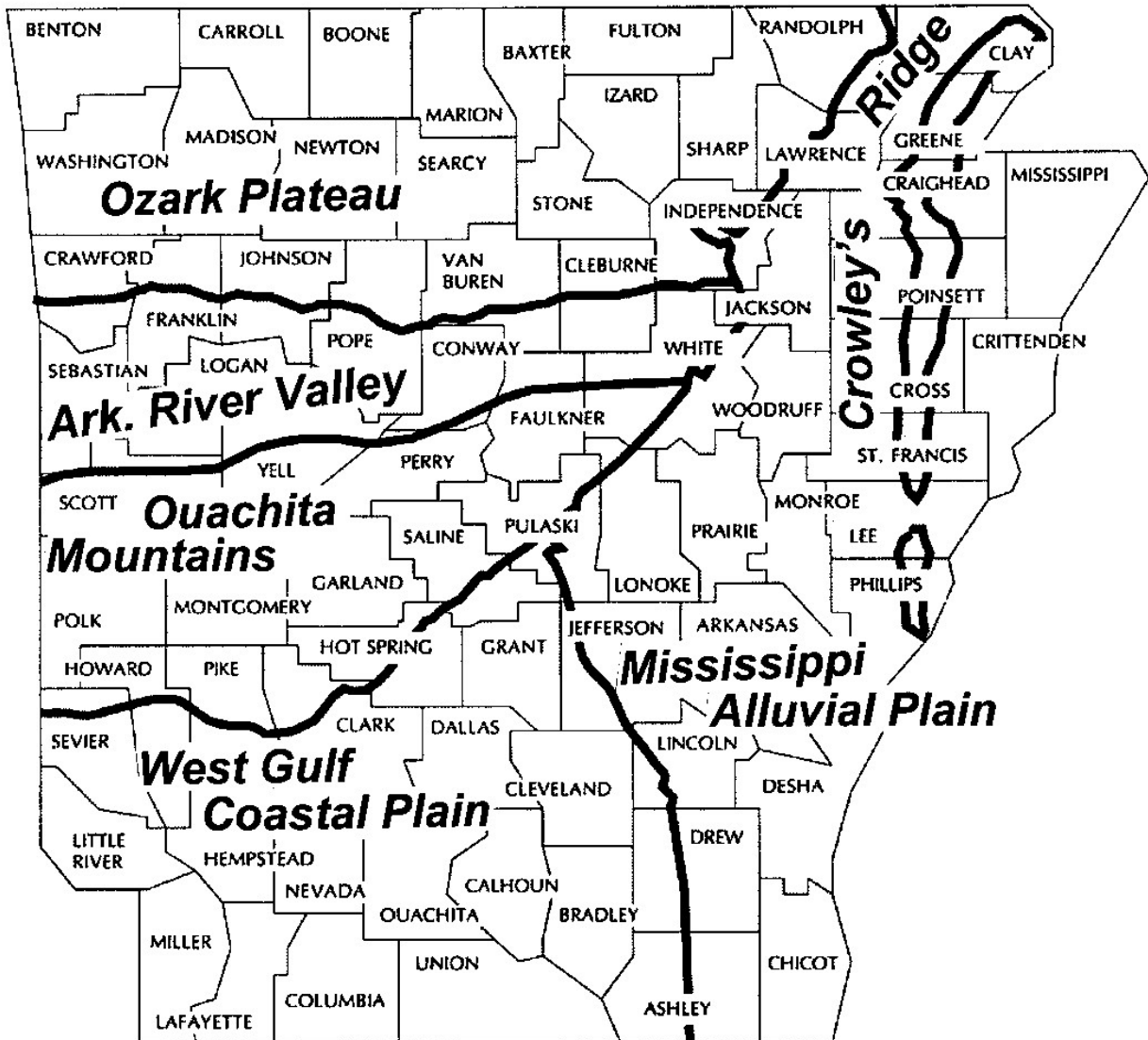
501-968-2354

This is a great source for maps, posters, and brochures about the Ouachita National Forest and the Forest Service.

These lesson plans are made possible in part through the support of the Arkansas Humanities Council, the National Endowment for the Humanities, the Arkansas Natural Heritage Commission, and the Bridge Fund at the Arkansas Community Foundation.

*Arkansas History lesson plans are available online at the Butler Center for Arkansas Studies website:
http://www.cals.lib.ar.us/butlercenter/lesson_plans.*

Arkansas' Six Natural Divisions



Adapted from Foti, Thomas and Gerald T. Hanson. Arkansas and the Land. Fayetteville: University of Arkansas Press, 1992, p. 36.

**A Partial List of Plants and Animals Found in the
Ouachita National Forest**

Plants:

Blackberry	Mistletoe	Sassafras
Black-eyed Susan	Osage Orange	Shortleaf Pine
Bloodroot	Ox-eye Daisy	Southern Oak
Blue Phlox	Pencil Flower	Toothwort
Dewberry	Possum-Haw (holly)	Trumpet Creeper
Flowering Dogwood	Potato Vine	Umbrella Magnolia
Giant Cane	Red Clover	Wood Violet
Loblolly Pine	Redbud	Yellow Honeysuckle

Animals:

American Goldfinch	Deer Mouse	Mountain Lion
American Toad	Eastern Cottontail	Nine-banded Armadillo
Bald Eagle	Gray Fox	Periodic Cicada
Bald-faced Hornet	Great Horned Owl	Plains Pocket Gopher
Bark Beetle	Lone Star Tick	Red Bat
Big-eared Bat	Mink	Red Fox
Black Bear	Muskrat	Scissor-tailed Flycatcher
Black Rat Snake	Pileated Woodpecker	Shrew
Black Widow Spider	Raccoon	Tiger Swallowtail Butterfly
Blue-jay	Red-cockaded Woodpecker	White-tailed Deer
Bobcat	Red-shouldered Hawk	