

Activities 6-8

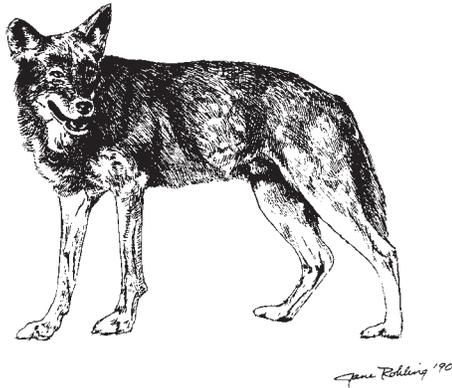
Conservation and Recovery

The activities in this section are designed for older children who are beginning to examine wildlife recovery and management issues. Students will be able to:

- Examine the role of the red wolf within the ecosystem
- Understand the concept of biodiversity and the role of the top predator
- Make decisions regarding wildlife management issues that will affect their lives
- Apply conflict resolution strategies to wolf recovery issues.

Exciting Stuff Inside!

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Elise McCauley Hammond

*“I’m the red wolf,
says the dark old
father; All right,
the red-dawn
wolf I am.”*

D. H. Lawrence

To Teachers

The following material in "Far Traveler" can be read by upper elementary and middle school students. This will provide some information on red wolf biology and the on-going red wolf recovery efforts. We suggest that teachers photocopy the pages and use them as informational reading lessons. This would be a good place to teach outlining skills and to teach informational reading strategies such as KWL and Double-Entry Reading Logs. Examples of these two strategies are included.

When students have learned about how the red wolf lives, about its role within its regional ecosystem, about how it hunts and about the role of a top predator; they will be ready to apply conflict resolution strategies to red wolf recovery issues and to examine the process of making wildlife management decisions.

We encourage you to help students enrich their vocabularies by playing the game of "Word-O!" Instructions and model grids for this game are included.

Specific Skills

Students can use the material in "Far Traveler" to learn to:

- Read for information and pleasure
- Develop informational reading strategies - KWL and Double-Entry Reading Logs, for example
- Ask questions to clarify what they do not understand

- Distinguish between fact and opinion
- Apply problem-solving strategies
- Build vocabulary
- Listen to a variety of viewpoints and assess those viewpoints
- Present their own viewpoints orally and in writing
- Achieve a balanced perspective
- Resolve conflicts
- Work with others to construct rational and flexible solutions to real problems

KWL

KWL will help you to select what is important when you are reading for information on a topic. Let's pretend for a moment that you are reading the selection "Where Have All the Red Wolves Gone?" in the introductory section "What Is a Red Wolf?"

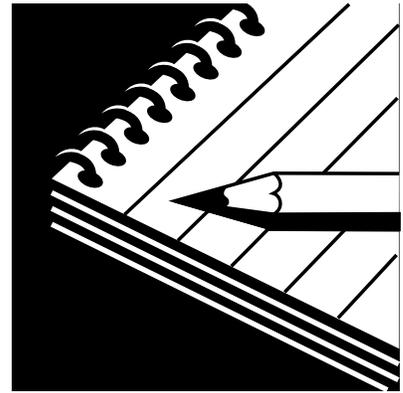
STEP #1: BEFORE YOU BEGIN READING, write in the first column everything you know about the disappearance of red wolves and about red wolf recovery. If you aren't sure about something, jot it down anyway. If you know absolutely nothing about the topic, that's all right, too. Be honest.

STEP #2: BEFORE YOU BEGIN READING, write in the second column a list of questions. What do you want to learn about why red wolves became extinct in the wild? Do you know what "reintroduction" means? If you don't, look it up in the curriculum glossary. Try to write at least five questions. This will take some time and thought, but it will be worth the effort because it will focus your reading.

STEP #3: Read the selection. You may want to take notes in column #3 under the heading "What did I learn?" That would be especially appropriate if you find information in the selection that answers one of your specific questions.

WHEN YOU HAVE FINISHED READING: Make a list of questions you have that remain unanswered. Perhaps you missed that piece of information in the selection. Ask someone else who read it and find out. Perhaps the selection did not cover that aspect of the topic. In that case, you may want to consult another source. Go to one of the suggested books or to one of the websites listed. They are filled with current and accurate information.

The KWL method can be used successfully for any informational reading you do. You will discover that you actually save time; you will remember what you have read because you will have established a purpose for reading; you will have searched what you already know about the topic; you will be focused on specific questions when you read; and you will have a quick and easy method for recording the information you gather. Give it a try!



Double-Entry Reading Logs

This reading strategy may help alleviate that "I read the material, but I don't remember a thing" feeling. Double-entry reading logs can sharpen your thinking skills, help you to respond to a whole text, provide ideas for class discussion, and improve your writing fluency. Use the model on the next page. After that, a piece of notebook paper will work just as well.

STEP #1: READ a paragraph of an identifiable section. Stop then and ask yourself, "What did I just read?" **WRITE** in the left column your **UNDERSTANDING** of what you just read. Be sure to write your understanding of the section in your own words. **DRAW A LINE WITH A HI-LIGHTER WHEN YOU GO FROM ONE PARAGRAPH OR ONE SECTION TO THE NEXT.**

STEP #2: In the right column, write: (a) the things you **DON'T** understand (b) the questions you have (c) any opinions you have (d) any vocabulary words that are confusing or that you don't understand.

STEP #3: Discussion. This may be done with the whole class or in small groups. Groups can select questions and write them on an overhead transparency to share with the whole class. Vocabulary words may also be listed and shared.

STEP #4: On a separate sheet of paper, list everything you would like to remember from a reading. What do you think is important to remember from the selection? What was particularly interesting?

STEP #5: The next day (or for homework), write a summary of everything you learned from the material you read.



Elise McCauley Hammond

Word-O

Vocabulary Extravaganza

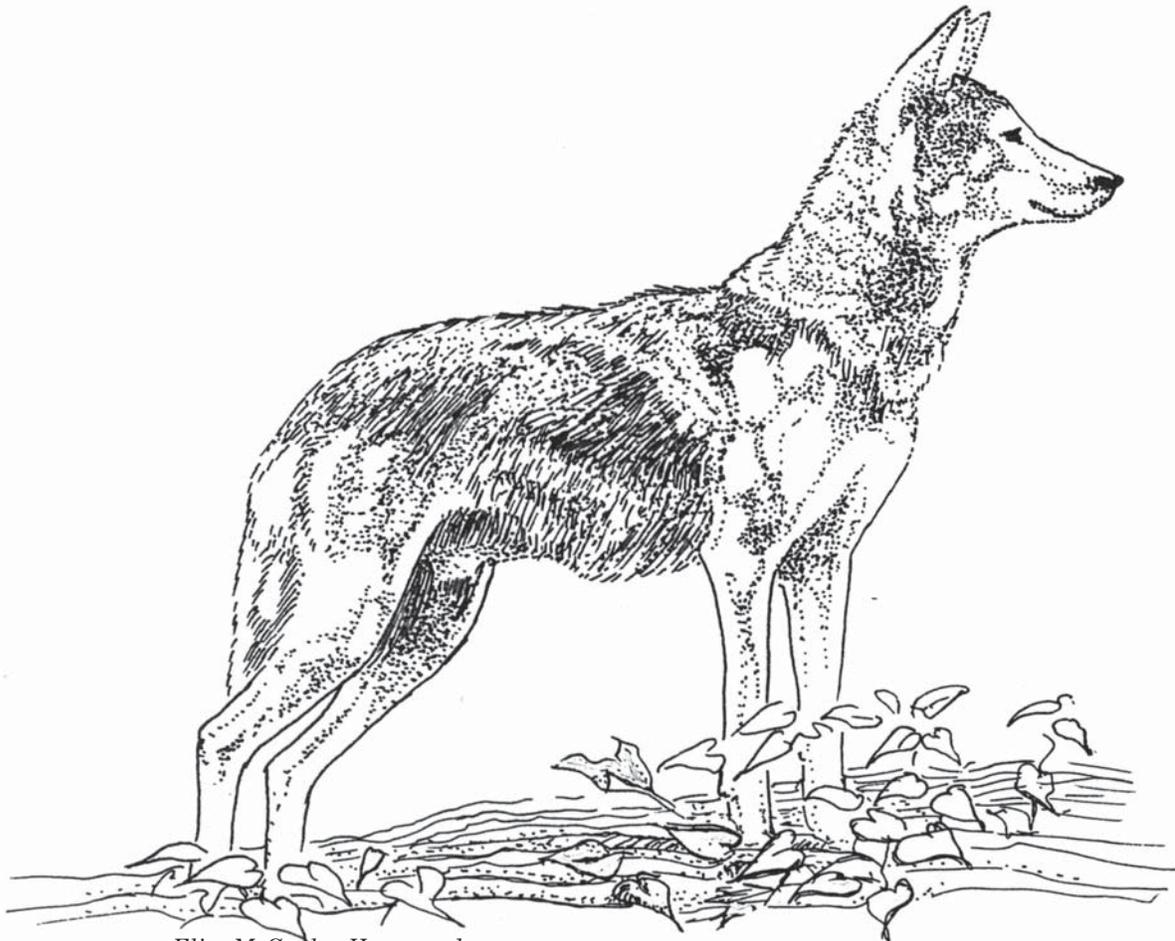
Become the Alpha Vocabulary Red Wolf!

How many of the red wolf words from the glossary and in bold from the "Far Traveler" text do you know? How many of the words do you know? It will all depend on whether you are a "Pup" or an "Old Experienced Wolf" with lots of expertise about wolves, wilderness, and wildlife! If you and your classmates have learned the meanings of a lot of the words, you can have a **WORD-O** game. This is fun, and it's a great way to review for any vocabulary test in any subject.

Directions

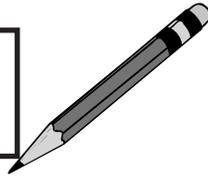
Do you know how to play **BINGO**? Then you can play **WORD - O!** Fill in 25 vocabulary words in the squares, one per square, that is! The teacher (or the winner of each "round" if you want some variety) will call out the definitions. As each definition is called, locate the word on your grid and place a piece of colored paper (or an M&M if you can find a source - and if you can resist eating them before the game is over!) on the square. Five in a row, horizontally, vertically, or diagonally is **WORD - O!** The center square, by the way, gets filled in!

This is a great game for rainy Friday afternoons, for jump starts on Monday mornings, for any old time the teacher will say, "Well, all right, just for a little while!" when someone asks, "May we play **WORD - O?**"



Elise McCadley Hammond

X





Word - O!



Fact and Opinion: Which is which? How can you tell the difference?

As students move from upper middle school to high school, they begin to acquire and to refine expository and persuasive writing skills. Students at this level are also expected to determine purpose in reading—reading for pleasure and entertainment, reading to gather information, and reading to analyze a writer's opinion on a subject. When students have a basic understanding of purpose, audience, and of the difference between statements of fact and statements of opinion, they have cleared the first hurdle in expository and persuasive writing and speaking.

Students will find the answers to each question in the "Far Traveler" book. Don't forget to use the introductory section and the K - 5 section as well!

Directions:

Read each statement. Write the word FACT on the line if you can prove it OR disprove it. In other words, there is concrete evidence to verify the statement or to prove it false. Write the word OPINION on the line if the statement is a "belief" or a position statement. The underlined words are in the glossary! Part of the challenge is to learn new words! Practice your vocabulary expertise by playing "Word-O!"

1. _____ Wolves are carnivores, and red wolves prey mainly on mammals.
2. _____ The two officially recognized species of wolves in North America are the red wolf and the gray wolf.
3. _____ Top predators like red wolves should be reintroduced on all public lands in the Southeast that provide a large enough range to support a population.
4. _____ Farmers should be permitted by law to shoot any red wolf that kills livestock.
5. _____ A captive management program and a Species Survival Plan were necessary to save the red wolf from becoming extinct.
6. _____ One of the greatest problems with red wolf recovery is the potential for hybridizing with coyotes.
7. _____ Wolves are often portrayed as villains and savage killers in legends and in children's stories.
8. _____ Red wolves are shy and tend to avoid contact with people.
9. _____ Wolves are social animals with a pack structure based on a dominance hierarchy.
10. _____ Stories portraying wolves in a negative way are harmful to children.
11. _____ Red wolf pups are born in the spring and are cared for by both parents.
12. _____ Red wolves are generally smaller than gray wolves and larger than coyotes.
13. _____ Wolf hunting should be legal in areas where wolves are not listed as endangered or threatened.
14. _____ Wolves do not generally make successful pets because wolves are wild, not domestic, animals.

Answers

- | | | | | | |
|----------|-------------|------------|-------------|----------|---------|
| 1. Fact | 2. Fact | 3. Opinion | 4. Opinion | 5. Fact | 6. Fact |
| 7. Fact | 8. Fact | 9. Fact | 10. Opinion | 11. Fact | |
| 12. Fact | 13. Opinion | 14. Fact | | | |

On Your Own!

Can you write three FACT statements about red wolves? Sure you can! If you were to write an informational paragraph, your fact statement would be the topic sentence.

1. _____

2. _____

3. _____

Can you write three OPINION statements about red wolves? If you were to write a persuasive paragraph, your opinion statement would be the thesis statement.

1. _____

2. _____

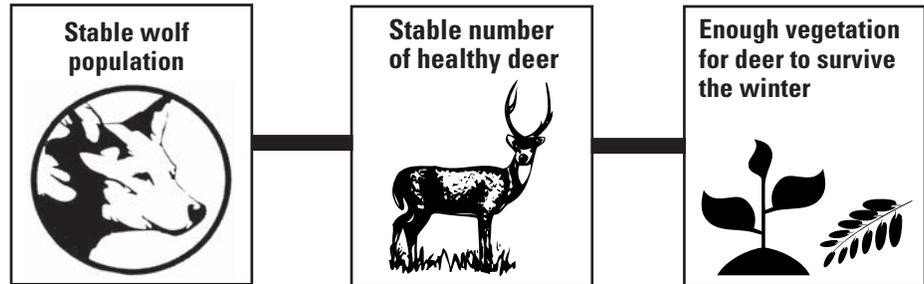
3. _____

Review the form of the persuasive paragraph. If you are learning to write short persuasive essays, one of your opinion statements might be a good thesis statement! Try writing a persuasive paragraph after you have reviewed the parts: thesis statement, supporting statements, concluding statement, transitional words and phrases.

The Web of Life

The Role of the Top Predator

Red wolves are important to the health of an ecosystem. The natural prey of red wolves are white-tailed deer and other small to medium sized mammals. Wolves help limit the number of prey animals in their territory. For example, by helping to keep the deer population under control, wolves also help keep the vegetation healthy by preventing overgrazing and overbrowsing. The flowchart will illustrate this for you.



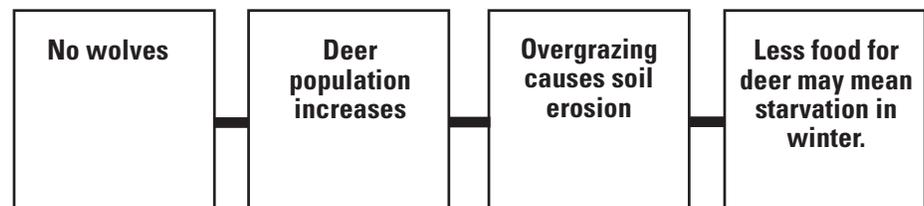
Aldo Leopold, the great naturalist, wrote the following description in his famous essay "Thinking Like a Mountain." Leopold is remembering an experience in his youth when he shot a wolf.

Read this selection aloud as a whole class with the teacher and discuss it, or read it in small groups and speculate about what you think Leopold is saying. Combine your ideas with the whole class.

"We reached the old wolf in time to watch a fierce green fire dying in her eyes. I realized then, and have known ever since, that there was something new to me in those eyes-something known only to her and to the mountain. I was young then....I thought that because fewer wolves meant more deer, that no wolves would mean hunters' paradise. But after seeing the green fire die, I sensed that neither the wolf nor the mountain agreed with such a view.

Since then I have lived to see state after state extirpate its wolves. I have watched the face of many a newly wolfless mountain, and seen the south-facing slopes wrinkle with a maze of new deer trails. I have seen every edible bush and seedling browsed...to death. I have seen every edible tree defoliated to the height of a saddlehorn....In the end the starved bones of the hoped-for deer herd, dead of its own too-much, bleach with the bones of the dead sage....

I now suspect that just as a deer herd lives in mortal fear of its wolves, so does a mountain live in mortal fear of its deer."





The Web of Life

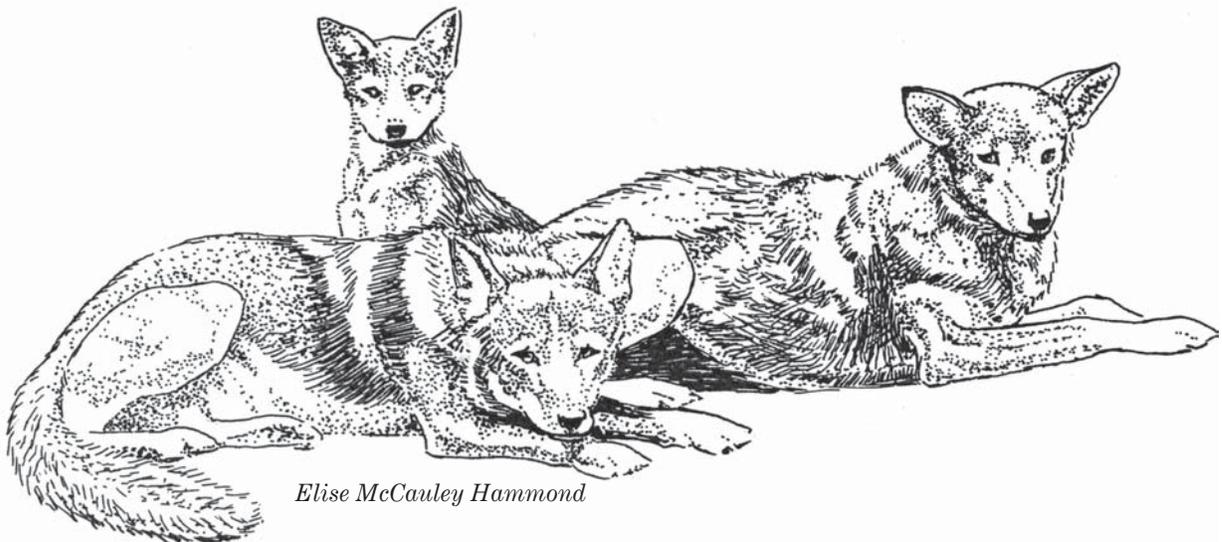
Red wolves and other top predators must kill to live. Their bodies are designed for predation (see "Designed for Hunting"), and their digestive systems are specially adapted to process their diet of meat. Being a predator can be a dangerous job. For example, the sharp hooves of a deer can kill or severely injure a wolf. It makes sense for a wolf to select the prey that is easiest to catch and kill. If the prey is an ungulate, or hoofed animal such as a deer, the wolf may often select one that is vulnerable - old, sick, or young.

Predators are essential ingredients of a healthy ecosystem. They feed the scavengers that visit wolf kills no matter what the prey the wolves have selected. In a process called "resource partitioning," various animals, depending on the time of day, divide up the leftovers. This eating in shifts means that different species take turns at the kill, and competition is thus reduced. Crows and vultures dine at a wolf kill; blue jays, nuthatches, chickadees and woodpeckers search for morsels just as they do at the suet feeder in your backyard. Foxes and coyotes watch for their chance. Others who search for wolf leftovers are weasels and skunks who pick at bones. Small rodents make nocturnal visits at a kill to search for bits of food. Beetles and other invertebrates benefit from carrion - and many birds come to devour the bugs! Ticks, fleas, flies and other parasites also buzz and crawl around a rotting carcass. Larvae produced by flies attract more birds and often bears. The process of decomposition provides fertilizer for the plant life around the carcass. This vegetation will provide food for the herbivores such as deer, thus ensuring the continuation of the cycle of life.

(Resource: "Wolves: Engineers of Biodiversity" by Nancy Gibson - International Wolf, Summer, 1999)

Your Turn!

Design a graphic to illustrate the role of the red wolf as a top predator in strengthening the biodiversity of an ecosystem. See how many different animals and plants you can include that benefit from the presence of a dominant predator like the red wolf. Important food items in the red wolf diet are nutria, raccoons, and deer. Nutria destroy wetland, aquatic plants. Deer can damage crops and cause hazards on roads. Raccoons prey on eggs of ground nesting birds such as quail and turkey. You can create a web or a pyramid using a variety of art materials. You might want to work independently or with a partner.



Elise McCauley Hammond

Becoming Part of the Web of Life (Lesson Plan and Activity)

Materials

- ball of yarn
- name cards (see below)
- list of organisms from which to choose
- list of survival needs.

Preparation

- Review the definition of the word organism. Simply defined, an organism is a plant or an animal. It might be microscopic, or it may be huge.
- Ask students to make a list of what organisms **need** in order to survive. If you do the Conflict Resolution Activity, this will provide background.
- Compile the list on the overhead or the chalkboard. Students should have listed needs as food, shelter, and water.
- Next have students compile individual lists of organisms. Limit this list to organisms that live in your area and about which students have at least some knowledge.
- Write the list on the overhead or the chalkboard. Encourage variety. Be sure you have a balanced list.
- Write the names of the organisms on pieces of colored construction paper. The names should be written in large letters. Children can illustrate these name tags. Decide whether the organisms will be assigned or whether the students will choose them from the pile of name tags placed face down.
- Students should sit in a circle, close together. On a nice day, this could be done outside!
- Students should pin the name tags to their clothing or place the name tags in front of them for easy reading. If the class is large, you might want to divide them into two groups.
- Remind students of what organisms need to survive.
- Hand the ball of yarn to a student. Tell the student to wrap the ball of yarn around his or her hand so that it remains secure.
- Tell that student to look around the circle. Choose an organism with which his or her organism interacts. **Have the student consider these things: What does my organism eat? What, if anything, eats it? What does my organism use for shelter or for protection? What other organisms does it need in order to survive? What organisms need it in order for THEM to survive?**
- When a student has chosen an organism with which it interacts in some way, have the student say, for example, “I am a worm. I am going to toss the yarn over to the robin because a robin is a bird that depends on worms and grubs for food.” Then the student will toss the ball of yarn to the student who represents the bird, meanwhile keeping the strand wrapped securely around his or her own hand. The student who receives the yarn wraps it once around his or her hand, and the process is repeated.

“Each extinction is a unique voice silenced in a universal conversation of which we are only one participant.”

Mark Jerome Walters

“For one species to mourn the death of another is a new thing under the sun.”

Aldo Leopold

■ If students get stuck, you may have to prompt their thinking. If, for instance, the student representing the robin is genuinely confused, have him or her think about what the robin needs. Where does it nest. What materials does it use to build nests? Is there any organism that eats birds? What about the eggs of birds? Are scavengers in the circle who would eat a dead robin? What about the feathers of the robin? Would any organism utilize those? What about bird droppings? Do they fertilize plants, carry seeds? Students must expand their thinking beyond “eat and be eaten.”

■ The process of passing the ball of yarn continues until all the organisms have been included.

■ Important! Tell students that an organism may be chosen more than once! This will help them to see that the elimination of some organisms may cause subtle changes, while the elimination of others causes major and immediate changes. Be sure to have students announce what organism they represent and why they are passing the yarn to another particular organism representative.

Follow-up Discussion

Pose the following questions:

■ What does it mean to be attached to so many organisms?

■ Why do some organisms have more than one connection?

■ What would happen if some of the organisms were to disappear, become extinct?

Ask one student at a time to tug gently but firmly on the yarn. Have them notice how many other students feel the tug. Tell students that if they feel a tug on the yarn, they should tug the yarn in return. Each additional tug should generate more tugs from the group until everyone is tugging on the yarn. This can be a bit rowdy, but the activity reinforces the concept that all organisms are interrelated.

Ask students if they think one of the organisms in the circle is less important than another. Have them select one, or a student can volunteer if he or she can justify the claim. Ask that student to drop the yarn and move back from the circle. Ask any student who was attached to that organism to drop the yarn and move back also. Eventually all of the students will have dropped their yarn and moved back.

Talk about the outcome of extinction. How does the elimination of one species affect the web of life? What if isolated populations such as the Florida key deer were eliminated by natural disaster? What about the red wolf? Does the red wolf risk extinction through natural disaster or disease or development or hybridization with coyotes?

Further Exploration

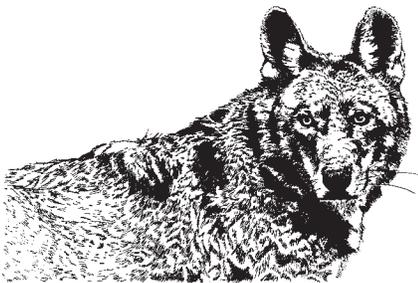
■ Ask students to interview a grandparent, another older relative, or an older person in the community. Ask this person if he or she remembers plants or animals that no longer exist in the area or which have declined in population so that they are rarely seen. Share these interviews.

■ **Reflective Writing:**

Ask students to write about a particular plant or animal they enjoy seeing in the world. This can be an essay or a first-person narrative in which the student tells about the experience of seeing an animal he or she had never seen before. Ask students to reflect about what would happen if this plant or animal ceased to exist. What would be the damage to the web of life? Would there be economic damage? Is there something in the human spirit that responds to the existence of other life?

“We owe it to the wolf to try one more time to work out a relationship that protects legitimate human interests while allowing living space for wolves. Further. . .we owe it to ourselves to try again to manage wolves wisely. . . .The true measure of the morality of a political society is how justly it treats its least powerful and popular citizens. In much the same sense, the ecological decency of a society can be measured by how it treats the most troublesome and notorious animal species. When our society proves it has learned to live with wolves, we can begin to like ourselves a little better. It will then be time to ponder how we can improve our relations with several hundred other species.”

Steve Grooms



Jane Rohling

Designed for Hunting

Eyes

- Binocular vision
- Can see to hunt in darkness as well as in daylight

Ears

- Long ears that can detect the slightest of sounds
- Long ears help body get rid of heat in summer

Nose

- Sense of smell is strongest of all the senses
- Can smell prey from long distances

Mouth and Jaws

- 42 teeth
- Long canine teeth for piercing and gripping
- Incisors for nibbling and cleaning bones
- Carnassials for shearing and cutting meat
- Powerful jaws for crushing bones

Feet and Legs

- Long slender legs enabling wolf to trot tirelessly for long distances or to sprint when chasing prey
- Elbows that turn inward so that feet track in a straight line underneath body

- Runs on toes for speed - review activity on plantigrade and digitigrade
- Large round feet for traveling on snow and mud
- Long flexible toes that spread out for gripping on rock

Did You Know...?

- Wolves don't "kill for the fun of it!" It's a hard enough job just to find enough to eat in order to survive.
- Wolves sometimes kill more than they can eat at one time. They may cache extra food, or they may leave it for scavengers to consume.
- Wolves must drink a lot of water because of their meat diet in order to digest their food.
- Wolves don't chew their food; they gulp it down in chunks. That's where the expression "wolfing your food" comes from.
- Wolves often go several days - sometimes a week or more - without eating. Life is truly "feast and famine."
- Wolves carry food to the den or the rendezvous site in their stomachs. They regurgitate food for the pups or for the nursing mother who cannot leave the den to hunt.



Working It Out: Divergent Viewpoints, Creative Solutions

The future of the red wolf in the wild remains uncertain. Although the recovery efforts in northeastern North Carolina have shown significant progress, two major challenges remain. The first is the potential for hybridization with coyotes. Data are being collected which demonstrate that some wild red wolves have indeed bred with coyotes in northeastern North Carolina. Much research remains to be done to determine the extent of this problem and to find solutions. The second challenge is to find additional habitat for red wolves. This is difficult for two reasons. First, there are no areas in the eastern United States that are coyote-free. Second, the human population is large, and road density is high. Also, the national parks and state forests are heavily utilized for recreational purposes. In addition, many people think that wolves will compete economically with human interests, principally farming and hunting. Lastly, a significant number of people are convinced that wolves pose a major danger to people.

Students need to examine a variety of perspectives about red wolf recovery and management. This Conflict Resolution Activity is designed to help students examine divergent points of view and find creative solutions. The issue of restoring the red wolf to some portions of its former range in the southeastern United States is controversial and often volatile. Summit predators like wolves are at the heart of a broader issue, which is, in a word, wilderness. How much wilderness is enough? How do we preserve our remaining wilderness areas? How can we best be stewards

of the earth? The issue of wolf restoration forces us as humans to scrutinize our wants and needs. It forces us to look at ways to achieve compromise and to examine what is really important, both for ourselves and for the generations that follow.

Preparation

1. Have students work in groups writing definitions for the following terms. Have them write their own definitions before they look the words up in the dictionary.

conflict	compromise	stakeholder
negotiate	wants / needs (What is the difference?)	solution
	perspective	

2. Practice finding a solution to an issue using "management skills." For instance, give students a situation to which they can relate. The controversy over backpacks in the classroom would work! Have groups role-play five people with different perspectives on students carrying large backpacks to class. See if they can find a compromise.

Parent:

Having everything in a large backpack makes it easier for my child to stay organized.

Principal:

We have fewer kids returning to lockers during class time if they have everything in one backpack.

Teacher:

Backpacks are dangerous in classrooms. Students trip over them. In addition, it takes too much time for kids to find what they need, and they start packing up before class is over.

School Nurse:

Backpacks are a strain on shoulders, and they are bad for posture. We are treating bruises caused by students bumping one another in the crowded halls with heavy backpacks.

Student:

I get to class on time if I have everything in a backpack. If I don't have to go to my locker between classes, I have time to visit with my friends.

3. Have students write a narrative about a time when they had a conflict with another person or group of people. Have them focus on the following: Was the conflict resolved? Did someone "win" and someone "lose?" Were you happy about the outcome? Did you have to give anything up?
4. Have students compare the conflicts that were resolved with the ones that were not. What was the difference?
5. Have students make a list of the ingredients for conflict resolution.

History in Brief

Red wolf recognized as distinct species 1905

Red wolf listed as endangered species 1967

Endangered Species Act becomes law 1973

Last red wolves removed from wild. Red wolf declared extinct in wild 1980

14 captured animals become nucleus of Captive Breeding Program to save the red wolf from extinction 1980-1985

Reintroduction begins with release of red wolves into ARNWR 1987*

First pups born in wild at ARNWR 1988*

Reintroduction into GSMNP 1991*

First release into PLNWR in northeastern North Carolina 1993*

Red wolf recovery effects terminated in GSMNP in 1998*

Debate Over Red Wolf Recovery Begins

Plans are underway to investigate the possibility of restoring red wolves to the High Pines State Park. A recent feasibility study conducted by a team of biologists reveals that the High Pines area will support a sustained population of approximately 40 red wolves.

Several factors were studied by the biologists whose findings have been published and released to the public. Prey base was the first criterion examined. Biologists determined that the High Pines has sufficient numbers of small mammals and deer needed to sustain red wolves. Secondly, road density is low. The park is accessible to hikers and to back country campers. Some logging roads are maintained for private timber companies holding leases to log specific areas. Permanent human population is low, although there is some private property within the perimeter of the park. There are no towns or villages within the park, although there are a number of vacation cottages. In addition, two ski resorts operate during the winter season, and three year-round lodges host hikers, hunters, sightseers, and men and women who fish the mountain streams.



The unspoiled wild area of High Pines State Park is the center of controversy over the proposed reintroduction of red wolves.

High Pines State Park is ringed with several small towns and a number of sheep and dairy farms.

A poll of residents living in and near High Pines State Park indicates a division of opinion over red wolf reintroduction. A Citizens Roundtable has been convened.

Community in Conflict

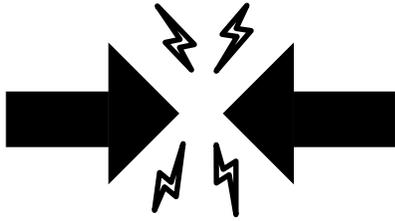
Findings from the recent feasibility study involving the proposed reintroduction of red wolves to the High Pines State Park were greeted with mixed reactions by a Citizens Roundtable held in the town of Clear Creek. A representative of each of several perspectives on the issue of red wolf recovery spoke. Some groups strongly advocate the return of the red wolf to this portion of its former range; others, however, voiced firm opposition. Some stakeholders were undecided. Each of the perspectives will be presented by the representative stakeholders at the next Roundtable session where a compromise plan will be drafted.

*ARNWR - Alligator River National Wildlife Refuge

*GSMNP - Great Smoky Mountains National Park

*PLNWR - Pocosin Lakes National Wildlife Refuge

Can the Conflict be Resolved?



Resolving Conflict

The newspaper article shows how wolves and humans can clash when their needs conflict. Some of the basic needs in this news story include having enough food, having a place to live and protecting what belongs to you. The challenge lies in finding ways in which all stakeholders can meet their needs and wants and still live in harmony with one another. To do this, all parties must assess their needs and wants. Are they reasonable? Are they destructive or harmful to the well-being of others? Remember! **NEEDS** are things that one requires in order to survive. **WANTS**, on the other hand, are things that would be nice to have but that are not necessary in order to survive.

Stakeholders

A stakeholder is a person or a group who has a strong concern about a particular issue. Stakeholders often have a "vested interest" in an issue; that is, they expect some private benefit from the resolution of the issue in their favor. In the past, many stakeholders have been successful at getting their personal wants and needs met, but often at the expense of wildlife and habitat. The current goal in protecting and preserving habitats and the wildlife native to those areas is for all stakeholders to work cooperatively to achieve a plan that works for everyone. Red wolf recovery is a controversial issue. That is, it arouses strong feeling and opinions from a variety of individuals and groups. Before you read the stakeholders' perspectives on the following page, try this! Working with a small group, list all the stakeholders you can think of - people and groups who are in some way affected by having the red wolf, a top predator, reintroduced to a portion of its former range.

The article in the [Southeast Chronicle](#) states that a study has revealed that it is feasible to reintroduce red wolves to High Pines State Park. Feasible means "capable of being accomplished." Now a Citizens Advisory Committee is being organized to discuss whether or not such a plan would be beneficial to the region and to the citizens who live in the area close to the reintroduction site. Who are these stakeholders and what are there perspectives? How many can you list? Use a separate sheet of paper if you wish.

Stakeholders	Perspective (Point of View)
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____

Stakeholders and Perspectives

Persons or groups with a vested interest in an issue

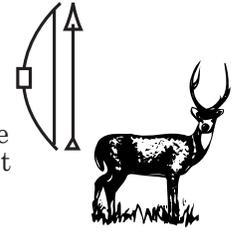
Points of view - ways of looking at issues

The stakeholders are affected both by the problem and by the solution.

Note to teachers: For the conflict resolution activities that follow, these "stakeholder cards" can be photocopied and cut so that students can "draw" a card rather than simply selecting one with a point of view they find compatible with their own!

Hunter

This has always been a hunting community. The local people enjoy hunting deer and small game, and we use the meat to feed ourselves and our families. Most of us are not trophy hunters, and we don't get many folks from outside the area who need guides. I am worried that red wolves will deplete the supply of game. Sure, we have a lot of deer around here, but sometimes, if we get a bad winter, the white-tail have a hard time of it. I am also concerned that if red wolves are reintroduced, there will be pressure to stop hunting altogether. Money from hunting licenses is a source of income for the state, and some of that money is used to protect wildlife and habitat. Hunting is a way of life around here. Hunters want to be sure that deer and small game are not stressed by a top predator like the red wolf.



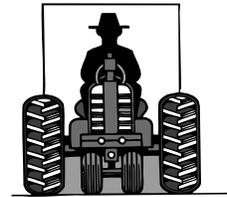
Red Wolf Biologist

So little is known about red wolves in the wild. Few studies were done, and red wolves were almost extinct before field research could be done and data collected. Red wolves are shy and elusive, and it is hard to do observations of their behavior in the wild. The Captive Management Program taught us a lot, but we still have much to learn about this beautiful and tenacious animal. The radio-collared wolves in the restoration area have taught us a lot about how the red wolf lives and hunts and about its pack structure. We are deeply concerned about the potential for the red wolves breeding with resident coyotes. This is a problem for which we are seeking solutions. Coyotes are an exotic species here; they are not native to North Carolina. Red wolves are. High Pines State Park is one of the few areas that has very few coyotes, thus making it an ideal recovery site.



Farmer

I have a herd of dairy cattle. My neighbor raises beef cattle and sheep. Our income depends on our livestock. If red wolves live around here and start killing our cattle and sheep, we will lose money. We aren't rich, and we can't afford to lose livestock. We have enough trouble with coyotes around here as it is. But at least it's not against the law to shoot a coyote. But red wolves are endangered. I could go to jail or have to pay a big fine if I kill a red wolf. Maybe both. I don't have anything against wolves or any other wild animal. But something has to be done to make sure my interests are protected if wolves are restored to this area. I just barely get by some years as it is, and red wolves would just add to my list of worries.



Resort Owner

I depend on visitors to the High Pines State Park. The park attracts hikers, river runners, and hunters. Families come because of the recreational opportunities in the park. I admit I have a few concerns about public safety. We don't have to worry much about bears around here except when people ignore common sense and leave food around. We have heard that red wolves are shy and stay away from people. But what if they lose their fear of humans? Could there be problems? Would people try to attract them with food so they could see them and take pictures? The whole idea of having red wolves in this area kind of intrigues me, but some plan would have to be worked out so the public would accept them but so they wouldn't try to get them to hang around campsites like dogs. Red wolves might actually be good for business because we could sell mugs and t-shirts in our gift shop. We could even help with an education program if someone would sponsor one.



Animal Rights Activist

Animals have as much right to live as humans do. It is wrong for humans to kill animals for their own purposes and



to replace their habitats with shopping malls, subdivisions, and roads. Red wolves are a prime example of how humans can

destroy an entire species. Red wolves were rescued only after having been pushed to the brink of extinction by humans. The future of this animal is still in jeopardy. It is time for us humans to reconsider our place in the scheme of life on earth. In the case of red wolves, humans should find ways to coexist with these magnificent predators. No animal except man has ever caused the artificial extinction of hundreds of species by exploiting plants and animals and their habitats. It is time to halt this destructive process and, as Thoreau and others suggested, to work out some relation to wildness.

The Red Wolf

"I am a hunter's hunter; my track a sign of hope, its absence a warning,"

(Christopher Camuto). I was here long before settlers came from across the seas. I am Wa'ya to the Cherokee, principal clan animal to the Ani-Wa'ya, the Wolf people. I am a provider, a loyal mate,



a devoted parent. I am responsible for my pups and for making sure they know how to hunt in order to survive. I am a carnivore. I depend on deer and small mammals to live. We red wolves have evolved over thousands of years with our prey. We have to kill to live. We have no other food source. Successful hunting is hard and dangerous. We have never caused the extinction of another species. We are blamed for declines in prey populations, but that is an unfair accusation. We would never cause our own extinction by eliminating our food source. Every healthy ecosystem needs summit predators. Our role is vital.

The Local Resident

Many of us have lived in this area for generations. We don't farm, but we own small businesses. Many of us see no reason to reintroduce an animal that has not lived here for many years. We worry



that an endangered species means property restrictions. What if a red wolf pack takes up residence on the

twenty acres I own in the park? Could I build a cabin if a wolf pack has a den there? It is against the law to kill an endangered animal. But what if I need to protect my children and pets? I am not clear on how the law works in that case. I don't hate wolves, and I don't believe that fairy tale stuff. But I don't think red wolves belong here. They belong in an area where there are fewer people. What if wolves lose their fear of people because they are protected? Would little kids be in danger? How would their numbers be controlled?

Environmentalist Naturalist

Top predators are essential to a healthy ecosystem. Red wolves play an important role in a well-balanced ecosystem. Too many ungulates such as white-tailed deer cause extensive



damage to vegetation, and even with the hunting season, some hard winters, and natural mortality, their numbers are increasing. We need

red wolves for the natural control of the deer and to ensure that the strongest and healthiest animals survive to breed. Red wolves generally do not kill livestock as long as their natural prey is plentiful. Coyotes sometimes kill livestock, and although coyotes are surprisingly scarce in this area, their numbers could increase in the absence of a top predator. One reason we are considering High Pines for red wolf recovery is the absence of large numbers of coyotes. This factor could help red wolves recover in the wild without the danger of being hybridized out of existence. Here is a chance for humans to do something positive to help an endangered animal!

Visitor Hiker Camper

I live in the city, but my family and I come here every year to enjoy the outdoors. We want our children to experience nature and wildlife, and that includes hearing red wolves howl and finding tracks - maybe even seeing them. We hear conflicting



information about whether or not red wolves could be dangerous to

humans. We need accurate information. We plan to teach our children responsible behavior toward all wildlife. We don't want a situation like we sometimes have with bears where they have to be destroyed because they become nuisances around campsites when people leave food around. We would hate to see the same thing happen with wolves. We need to work on public education.

Wildlife Management Officials

Everyone wants wild areas and wildlife for some personal or economic reason. We are trying to find a balance here between the demands for recreation, solitude, wildlife habitat, and jobs. The truth is, there is something for everyone - including the red wolf. What needs to happen is



for everyone to compromise. People can't just be out for themselves and their personal interests any longer. We have to look at the big picture

together; and maybe we will all have to adjust our thinking about what's important. Maybe farmers can rethink their livestock-raising practices. Maybe hunters will see the health of the deer herds improve with a top predator around. Maybe hikers can hear the howl of a wolf. Maybe, just maybe, we will ALL benefit from the return of the red wolf.

Resolving Conflict - Finding Balance

The following Conflict Resolution Activity will take several class sessions depending on the length of your class periods.

The article in The Southeast Chronicle and the perspectives of the stakeholders show how complicated the issue of red wolf recovery can be. Each stakeholder needs food, shelter, and a means of protecting what is valuable to him or her. Each stakeholder has wants as well - things that are not necessary for survival but that are nice to have.

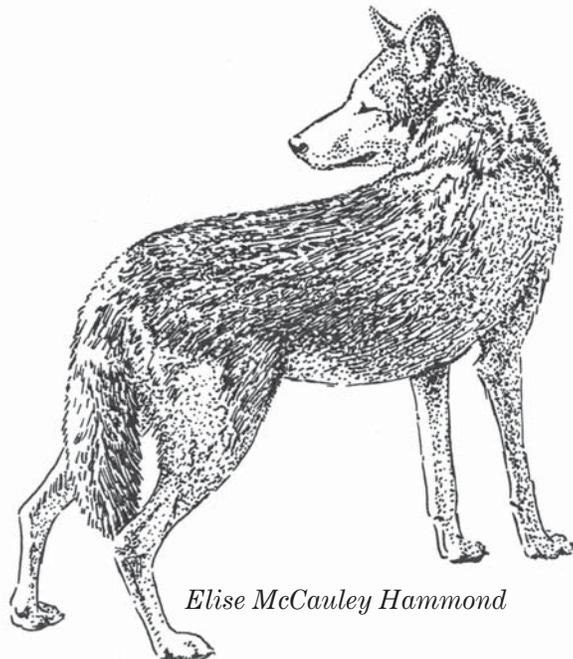
The questions and the challenge!

Can the issue of red wolf recovery in this area be resolved? If you think it can, then how? The challenge will be to work out ways that all the stakeholders can meet their needs and wants and live together in harmony. In order for a plan to be successful, two things must happen:

1. Each stakeholder must assess needs and wants carefully and be sure they are REASONABLE.
2. Each stakeholder must assess needs and wants carefully and be sure they are not harmful or destructive to the well being of others.

What to do!

1. Divide the class into groups of three or four students depending on the size of the class.
2. Photocopy the perspective cards. You may want to be the alpha wolf and present the red wolf's perspective. Each group may draw a perspective card, or you may assign a stakeholder perspective to each group. This will encourage each student to examine and to defend a point of view which he or she may not have previously considered or which he or she might not personally support.
3. Each group should have a copy of the Group Solution pages that follow. They should be prepared to share all work with the rest of the class. You will come together to negotiate a solution to the proposed recovery of the red wolf to High Pines State Park.



1

Compromises and Creative Solutions

Look at your perspective card. Write the name of your stakeholder on the line.

Name of stakeholder _____

Your first task is to list the needs and the wants of your stakeholder. Read the perspective card carefully. It will help you, but you should also include your own ideas! Stop and check to be sure that the needs are reasonable and are not harmful or destructive to others.

Needs	Wants
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____

Stop! Check!

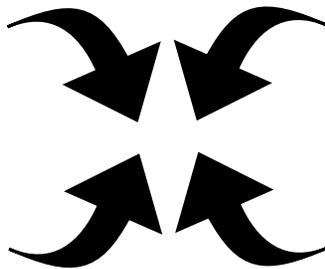
My needs and wants are reasonable and

are not harmful or destructive to others.

Solution

With your group members, write a DRAFT solution to the issue of red wolf recovery in High Pines State Park using compromise and consensus. Your draft solution should be in line with the reasonable needs and wants you have listed above. Use a separate sheet of paper if you wish.

Compromise Consensus



Roundtable **2**

Step 1

If possible, arrange the desks or tables so the entire class can sit in a big circle. This way, each member can listen carefully to each stakeholder and ask questions if necessary for clarification. Members of the roundtable should take NOTES on notebook paper as each stakeholder speaks. Each group will select a spokesperson to speak for the stakeholder the group represents. When you speak:

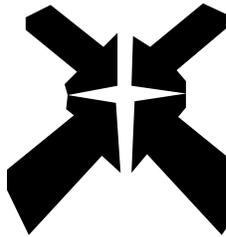
1. ANNOUNCE the name of the stakeholder you represent. PAUSE to let the members of the roundtable write it down.
2. READ slowly and carefully your list of needs and wants. Pause to let roundtable members take notes. Speak slowly and clearly.
3. READ aloud your stakeholder's solution. Read slowly and carefully, pausing to look at the members of the roundtable. This is a good place to practice your public speaking skills.
4. When you have finished, ask if there are any questions or if you need to repeat anything you have said.

Step 2

Each stakeholder group will meet again. This time your task will be to work on a compromise. You have listened to the other stakeholders. You have notes recording their needs and wants and their respective Draft solutions. You should now be prepared to assess your own needs and wants. What must you retain? What can you give up? What needs and wants can you compromise so that a solution can be reached and so that other stakeholders' needs and wants can be met as well as your own? Remember teamwork, communication, decision, and balance. Use a separate sheet of paper if you wish. List the compromises.

Compromises

Teamwork
Communication
Decision
Balance



Who's Afraid of the Cool Red Wolf?

An adjective is a word that is used to describe a noun or a pronoun. These words describe the red wolf.

Can you find them?

endangered

carnivorous

smart

social

shy

predatory

strong

mysterious

v	n	e	k	w	c	p	g	m	n	d
k	f	n	b	j	y	p	q	y	m	s
k	v	d	r	h	b	r	o	s	g	t
s	m	a	r	t	e	e	i	t	u	r
y	i	n	o	s	a	d	r	e	a	o
f	e	g	d	o	p	a	t	r	e	n
k	p	e	v	c	i	t	e	i	s	g
c	a	r	n	i	v	o	r	o	u	s
r	p	e	a	a	q	r	d	u	k	h
m	t	d	y	l	h	y	d	s	x	y



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ANSWERS!

v	n	e	k	w	c	p	g	m	n	d
k	f	n	b	j	y	p	q	y	m	s
k	v	d	r	h	b	r	o	s	g	t
s	m	a	r	t	e	e	i	t	u	r
y	i	n	o	s	a	d	r	e	a	o
f	e	g	d	o	p	a	t	r	e	n
k	p	e	v	c	i	t	e	i	s	g
c	a	r	n	i	v	o	r	o	u	s
r	p	e	a	a	q	r	d	u	k	h
m	t	d	y	l	h	y	d	s	x	y

WORD STALK

**WORD
STALK**

C	A	C	H	E	M	Y	T	H	E
A	P	D	O	L	P	R	E	Y	N
N	U	A	W	K	P	A	W	U	D
I	P	T	L	H	U	N	T	P	A
S	C	A	V	E	N	G	E	R	N
R	F	D	E	E	R	E	S	A	G
U	U	E	X	T	I	N	C	T	E
F	P	R	E	D	A	T	O	R	R
U	N	G	U	L	A	T	E	M	E
S	W	I	L	D	L	I	F	E	D

Special Challenge!

Find the words without looking at the list! Can you do it?

Canis rufus

wildlife

predator

data

hunt

cache

ungulate

endangered

myth

extinct

pup

deer

howl

scavenger

prey

paw

range

**ESA (Endangered
Species Act)**

WORD STALK

**WORD
STALK**

C	A	C	H	E	M	Y	T	H	E
A	P	D	O	L	P	R	E	Y	N
N	U	A	W	K	P	A	W	U	D
I	P	T	L	H	U	N	T	P	A
S	C	A	V	E	N	G	E	R	N
R	F	D	E	E	R	E	S	A	G
U	U	E	X	T	I	N	C	T	E
F	P	R	E	D	A	T	O	R	R
U	N	G	U	L	A	T	E	M	E
S	W	I	L	D	L	I	F	E	D

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ESA (Endangered
Species Act)

Clues!

Puzzling Over Wolves

Across

2. a behavior demonstrating high rank
3. area where an animal normally lives
5. big bad wolf blew their house down
7. highest ranking wolf
8. small wild Canid - also red and gray!
9. a masked prey animal of the red wolf
11. pups are born in this season
16. This state could be nicknamed "The Red Wolf State!"
19. The red wolf uses this to locate prey.
21. black scavenger with feathers
23. smaller non-native wild canid in North Carolina
26. information collected by scientists from which hypotheses and conclusions are drawn
28. one of the individuals in a breeding pair
30. strategy for restoring wolves to portions of their former range
31. facility for captive management

Down

1. ungulate prey
2. where pups are born
4. "River" where red wolves were reintroduced!
6. meat eater
8. protective coat
10. family of wolves, dogs, foxes and coyotes
12. method of feeding growing pups!
13. near extinction
14. not tamed or domesticated
15. wolf family
17. wolf song
18. area defined by links and relationships of organisms that live there
20. to hide food for later use
22. color of "Far Traveler"
24. breeding program to ensure survival of critically endangered species
25. "Lakes" home to red wolves
27. canines, carnassials and incisors!
29. protected and defended against intruders
32. government agency responsible for wildlife and endangered species



WOLF AND PREY

**W
O
R
D

H
U
N
T**

You are the red wolf! The words are the prey!

g	e	s	t	a	t	i	o	n	r	z	i	l	d	n	r
c	p	a	w	l	v	w	e	a	n	o	x	q	e	e	e
a	d	i	s	p	e	r	s	e	u	j	t	c	n	b	i
c	o	v	c	h	i	e	r	a	r	c	h	y	s	t	n
h	m	i	e	a	e	n	d	i	e	s	q	o	c	z	t
e	i	k	n	p	g	x	t	j	g	v	i	c	a	c	r
r	n	d	t	a	x	b	a	i	u	q	u	a	v	l	o
e	a	h	m	i	l	k	t	e	e	t	h	b	l	u	d
g	n	u	a	r	a	i	j	e	t	p	d	c	s	c	u
u	t	n	r	e	s	i	d	e	n	t	p	a	c	k	c
r	t	t	k	t	e	r	r	i	t	o	r	y	p	v	t
g	c	a	r	n	i	v	o	r	e	l	u	z	q	j	i
i	l	s	u	b	o	r	d	i	n	a	t	e	k	p	o
t	b	u	f	f	e	r	z	o	n	e	t	r	x	k	n
a	t	a	s	c	a	v	e	n	g	e	r	p	t	c	n
t	l	p	p	r	e	d	a	t	o	r	s	e	d	e	e
e	r	e	n	d	e	z	v	o	u	s	s	i	t	e	i

WORDS				
paw	resident pack	territory	gestation	hierarchy
den	milk teeth	scent mark	subordinate	dominant
wean	rendezvous site	buffer zone	carnivore	alpha pair
cache	regurgitate	scavenger	reintroduction	predator

WOLF AND PREY

**O
R
D
H
U
N
T**

Answers- You are the red wolf! The words are the prey!

g	e	s	t	a	t	i	o	n	r	z	i	l	d	n	r
c	p	a	w	l	v	w	e	a	n	o	x	q	e	e	e
a	d	i	s	p	e	r	s	e	u	j	t	c	n	b	i
c	o	v	c	h	i	e	r	a	r	c	h	y	s	t	n
h	m	i	e	a	e	n	d	i	e	s	q	o	c	z	t
e	i	k	n	p	g	x	t	j	g	v	i	c	a	c	r
r	n	d	t	a	x	b	a	i	u	q	u	a	v	l	o
e	a	h	m	i	l	k	t	e	e	t	h	b	l	u	d
g	n	u	a	r	a	i	j	e	t	p	d	c	s	c	u
u	t	n	r	e	s	i	d	e	n	t	p	a	c	k	c
r	t	t	k	t	e	r	r	i	t	o	r	y	p	v	t
g	c	a	r	n	i	v	o	r	e	l	u	z	q	j	i
i	l	s	u	b	o	r	d	i	n	a	t	e	k	p	o
t	b	u	f	f	e	r	z	o	n	e	t	r	x	k	n
a	t	a	s	c	a	v	e	n	g	e	r	p	t	c	n
t	l	p	p	r	e	d	a	t	o	r	s	e	d	e	e
e	r	e	n	d	e	z	v	o	u	s	s	i	t	e	i

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