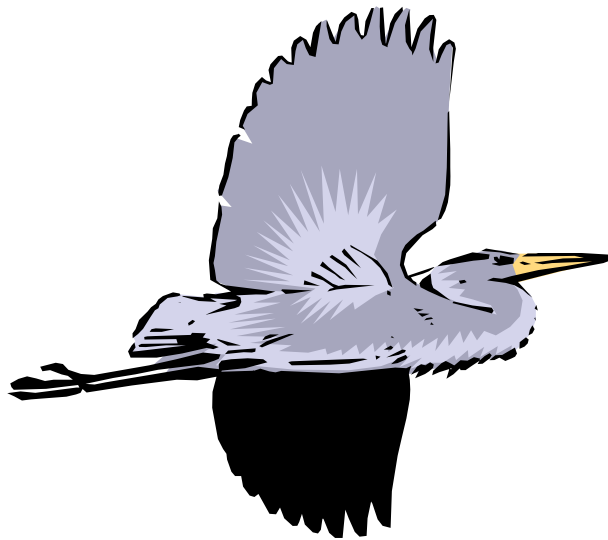


**MAST ACADEMY OUTREACH**

**ELEMENTARY SCHOOL PROGRAM**

**Birds of the Everglades**

**Post-site Package**



**MAST Academy**

**Maritime and Science Technology High School**

**Miami-Dade County Public Schools**

**Miami, Florida**

# **BIRDS OF THE EVERGLADES**

## **POST-SITE PACKAGE**

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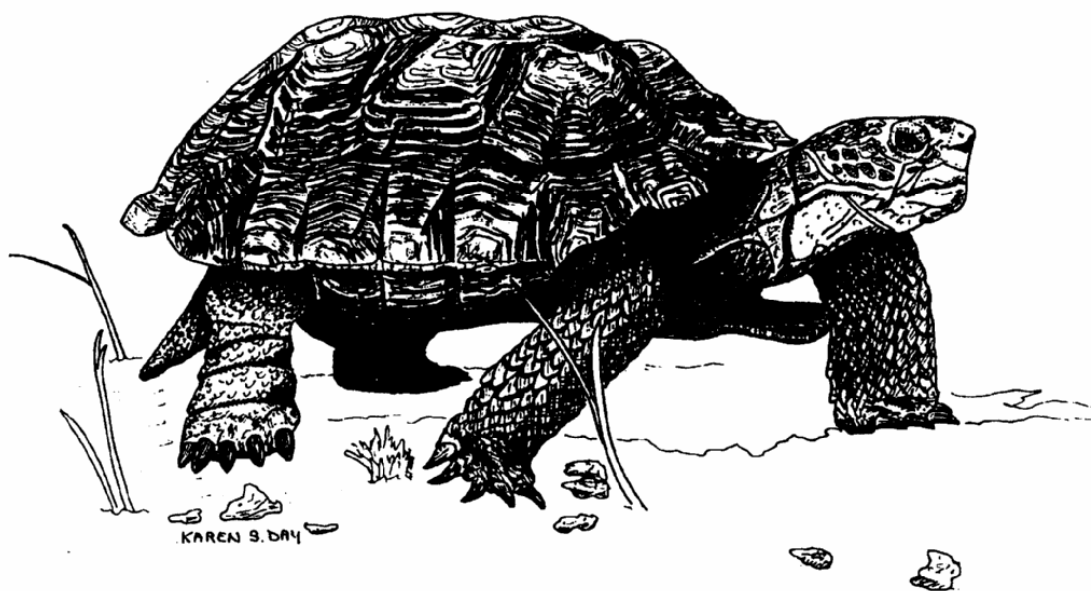




U.S. Fish & Wildlife Service

# Teacher's Packet

*To Help Teachers and  
Students Learn More About  
Endangered Species*



*threatened desert  
tortoise (Gopherus  
agassizii)  
By Karen Day  
Boylan*

June 1998



U.S. Fish & Wildlife Service

# ESA Basics

*Over 25 years of protecting endangered species*

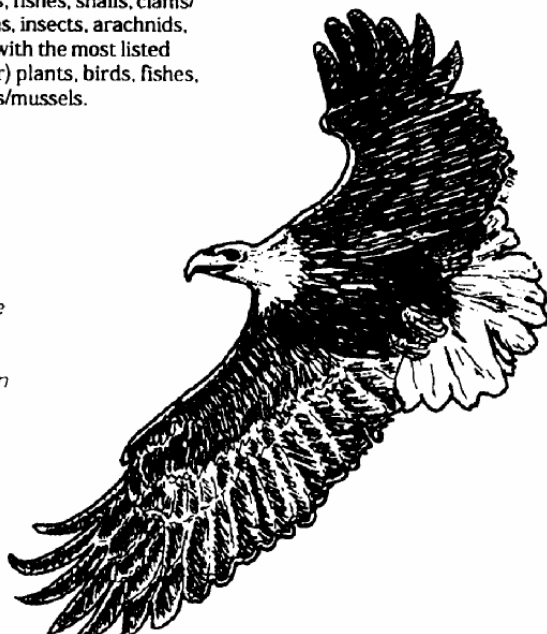
## Introduction

When the Endangered Species Act (ESA) was passed in 1973, it represented America's concern about the decline of many wildlife species around the world. It is regarded as one of the most comprehensive wildlife conservation laws in the world.

The purpose of the ESA is to conserve "the ecosystems upon which endangered and threatened species depend" and to conserve and recover listed species. Under the law, species may be listed as either "endangered" or "threatened". Endangered means a species is in danger of extinction throughout all or a significant portion of its range. Threatened means a species is likely to become endangered within the foreseeable future. All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened.

As of December 31, 1997, 1,125 U.S. species are listed, of which 457 are animals and 668 are plants. The list includes both U.S. and foreign species and covers mammals, birds, reptiles, amphibians, fishes, snails, clams/mussels, crustaceans, insects, arachnids, and plants. Groups with the most listed species are (in order) plants, birds, fishes, mammals, and clams/mussels.

*threatened bald eagle  
(Haliaeetus  
leucocephalus)  
by Karen Day Boylan*



The law is administered by the Interior Department's U.S. Fish and Wildlife Service (FWS) and the Commerce Department's National Marine Fisheries Service. The FWS has primary responsibility for terrestrial and freshwater organisms, while the National Marine Fisheries Service's responsibilities are mainly for marine species such as salmon and whales.

## Legislative History

The 1973 Endangered Species Act replaced earlier laws enacted in 1966 and 1969, which provided for a list of endangered species but gave them little meaningful protection. The 1973 law has been reauthorized seven times and amended on several occasions, most recently in 1988. The Endangered Species Act was due for reauthorization again in 1993, but legislation to reauthorize it has not yet been enacted. The Endangered Species program has continued

to receive appropriations while Congress considers reauthorization, allowing conservation actions for threatened and endangered species to continue.

## The ESA

The Endangered Species Act is a complex law with a great deal of built-in flexibility. Some basics of the law include:

### Purpose

When Congress passed the Endangered Species Act in 1973, it recognized that many of our nation's native plants and animals were in danger of becoming extinct. They further expressed that our rich natural heritage was of "esthetic, ecological, educational, recreational, and scientific value to our Nation and its people." The purposes of the Act are to protect these endangered and threatened species and to provide a means to conserve their ecosystems.

### Federal Agencies

All federal agencies are to protect species and preserve their habitats. Federal agencies must utilize their authorities to conserve listed species and make sure that their actions do not jeopardize the continued existence of listed species. The FWS and the National Marine Fisheries Service work with other agencies to plan or modify federal projects so that they will have minimal impact on listed species and their habitat.

### Working with States

The protection of species is also achieved through partnerships with the States. Section 6 of the law encourages each State to develop and maintain conservation programs for resident federally-listed threatened and endangered species. Federal financial assistance and a system of incentives are available to attract State participation. Some State laws and regulations are even more restrictive in granting exceptions or permits than the current FSA.

### Local Involvement

The protection of federally listed species on Federal lands is the first priority of the FWS, yet, many species occur partially, extensively or, in some cases, exclusively on private lands. Policies and incentives have been developed to protect private landowners' interests in their lands while encouraging them to manage their lands in ways that benefit endangered species. Much of the progress in recovery of endangered species can be attributed to public support and involvement.

### Listing

Species are listed on the basis of "the best scientific and commercial data available." Listings are made solely on the basis of the species' biological status and threats to its existence. The FWS decides all listings using sound science and peer review to ensure the accuracy of the best available data.

### Candidate Species

The FWS also maintains a list of "candidate" species. These are species for which the Service has enough information to warrant proposing them for listing as endangered or threatened, but these species have not yet been proposed for listing. The FWS works with States and private partners to carry out conservation actions for candidate species to prevent their further decline and possibly eliminate the need to list them as endangered or threatened.

### Recovery

The law's ultimate goal is to "recover" species so they no longer need protection under the Endangered Species Act. The law provides for recovery plans to be developed describing the steps needed to restore a species to health. Appropriate public and private agencies and institutions and other qualified persons assist in the development and implementation of recovery plans. The Clinton Administration has issued new guidelines requiring the involvement of the public and interested "stakeholders" in recovery plans. Recovery teams may be appointed to develop and implement recovery plans.

### Consultation

The law requires federal agencies to consult with the Fish and Wildlife Service to ensure that the actions they authorize, fund, or carry out will not jeopardize listed species. In the relatively few cases where the FWS determines the proposed action will jeopardize the species, they must issue a "biological opinion" offering "reasonable and prudent alternatives" about how the proposed action could be modified to avoid jeopardy to listed species. It is a very rare exception where projects are withdrawn or terminated because of jeopardy to a listed species.

### Critical Habitat

The law provides for designation of "critical habitat" for listed species when judged to be "prudent and determinable." Critical habitat includes geographic areas "on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection." Critical habitat may include areas not occupied by the species at the time of listing but that are essential to the conservation of the species. Critical habitat designations affect only federal agency actions or federally funded or permitted activities.

### International Species

The Endangered Species Act is the law that implements U.S. participation in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), a 130-nation agreement designed to prevent species from becoming endangered or extinct because of international trade. The law prohibits trade in listed species except under CITES permits.

### Exemptions

The law provides a process for exempting development projects from the restrictions of the Endangered Species Act. This process permits completion of projects that have been determined to jeopardize the survival of a listed species, if a Cabinet-level "Endangered Species Committee" decides the benefits of the project clearly outweigh the benefits of conserving a species. Since its creation in 1978, the Committee has only been called upon four times to make this decision.

### Habitat Conservation Plans

This provision of the ESA is designed to relieve restrictions on private landowners who want to develop land inhabited by endangered species. Private landowners who develop and implement an approved "habitat conservation plan" providing for conservation of the species can receive an "incidental take permit" that allows their development project to go forward.

### Definition of "Take"

Section 9 of the Endangered Species Act makes it unlawful for a person to "take" a listed species. The Act says "The term take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." The Secretary of the Interior, through regulations, defined the term "harm" in this passage as "an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering."

### Compliance with Other Laws

The Endangered Species Act is not the only law to protect species of wild mammals, birds, reptiles, amphibians and fishes, clams, snails, insects, spiders, crustaceans, and plants. There are many other laws with enforcement provisions to protect declining populations of rare species and their habitat, such as the Marine Mammal Protection Act, the Migratory Bird Treaty Act, and the Anadromous Fish Conservation Act. The Lacey Act makes it a federal crime for any person to import, export, transport, sell, receive, acquire, possess, or purchase any fish, wildlife, or plant taken, possessed transported or sold in violation of any Federal, State, foreign or Indian tribal law, treaty, or regulation.

### For More Information

For additional information about threatened and endangered species and current recovery efforts, contact the U.S. Fish and Wildlife Service at 703/358 2171 or 800/344 WILD. Additional materials and the current U.S. List of Endangered and Threatened Wildlife and Plants is also available over the Internet at <<http://www.fws.gov/r9endspp/endspp.html>>.

U.S. Fish & Wildlife Service  
1 800/344 WILD

<http://endangered.fws.gov/kids/index.html>

June 1998



## U.S. Fish & Wildlife Service

# Success Stories Made Possible by the ESA

All of the plants and animals on the endangered species list got there because they were in serious trouble. The most common threat to all endangered species is loss of habitat. But since the enactment of the Endangered Species Act of 1973, nearly 40 percent of all the listed species have seen a measure of improvement, either through captive breeding, habitat rehabilitation, successful reintroduction or population increase. Here are a few species you may recognize which have been helped by the special protection of the Endangered Species Act:

### Aleutian Canada Goose

Numbered between 200 and 300 when listed in 1967, the population today exceeds 7,900. Found in Alaska, California, Oregon and Washington, the species was reclassified from endangered to threatened in 1990.

### Brown Pelican

The brown pelican is considered the first avian species to recover from the effects of DDT and other pesticides on its nesting success. In 1985, brown pelican populations on the Atlantic Coast of the U.S. (including Florida and Alabama) had recovered so that the species could be removed from the ESA protection in that part of its range.

### Gray Whale

The eastern population of the Pacific gray whale has doubled since it was listed; the whale now supports a thriving whale tour business in Southern California and was declared fully recovered and removed from the endangered species list in 1994 by the National Marine Fisheries Service.

### Virginia Big-Eared Bat

Known population levels of the Virginia big-eared bat have increased tenfold since the bat's listing in 1979, from 1,300 to more than 13,000 and population increases have remained steady.

Protection from disturbance during migration, such as the gating of some caves, has improved the status of the bat, known to consume their own weight in insects in a single day.

### Gray Wolf

The gray wolf population has increased since the species' listing as endangered in 1967 for the lower 48 states, except of Minnesota. In 1995, 31 Canadian wolves were released into Yellowstone National Park, and in 1996 another 35 wolves were released into central Idaho. In 1997, the Fish and Wildlife Service announced that since the introduced wolves were doing so well, no further introductions should be necessary.

### Small-whorled Pogonia

Residential and commercial development have been the primary threats to this rare pogonia. However, since the plant's listing, State and municipal conservation efforts and private landowner contributions have afforded permanent protection for the largest-known population of this plant, allowing it to be reclassified as threatened.

### Bald Eagle

America's national symbol was decimated by the ingestion of DDT, habitat loss, and illegal shooting. By 1967, only 417 nesting pairs remained. Today, there are more than 4,000 nesting pairs in the lower 48 states. In 1995, the Fish and Wildlife Service moved to reclassify the bald eagle from endangered to threatened throughout the lower 48 states.

### Greenback Cutthroat Trout

Listed as endangered in 1967, the greenback cutthroat trout was reclassified as threatened in 1978. It has since been restored to more than 40 lakes and streams in Colorado. This species could be removed from the list by the year 2000.

### Black-Footed Ferret

Once thought to be extinct, the black-footed ferret was rediscovered in 1981 near Wyoming. A successful captive breeding program has increased the population from 18 to more than 300. In 1991, a reintroduction program was launched in Wyoming, with later releases in Arizona, Montana, and South Dakota. Now, there are young born in the wild too!



U.S. Fish & Wildlife Service

1 800/244 WILD

<http://endangered.fws.gov/kids/index.html>

June 1998

endangered brown  
pelican (*Pelecanus  
occidentalis*)  
by Robert Savinich



U.S. Fish & Wildlife Service

# Why Save Species?

*Because protecting endangered species protects us.*

## Protecting Endangered Species Helps Protect a Healthy Environment.

- A healthy environment for wildlife contributes to a healthy environment for people, today and tomorrow.
- Protecting endangered species and biodiversity saves species that may become important sources of new drugs, medicines, or foods.
- Endangered species are Nature's "911", an early warning system for pollution and environmental degradation that may someday affect human health.
- Endangered species are linked to environmental quality (for example, endangered mussels are indicators of poor water quality).

## Protecting Endangered Species Helps Sustain the Local Economy and Provides a Good Quality of Life.

- States and localities with healthy environments attract residents and businesses interested in a good quality of life for their employees.
- Healthy environments sustain a variety of jobs (for example, commercial fishing, tourism, outdoor equipment and clothing. Loss of forests and degradation of rivers and streams causes job losses for fishers.)
- Unhealthy environments cost money (for example, loss of wetlands can increase flooding and cost millions in flood losses).
- Americans spent \$87.8 billion on fish and wildlife-related recreation in 1996.
- Environmental regulations can help protect private property rights, because what your neighbor does on his or her property can affect your property.
- Some localities celebrate their endangered species to attract tourist revenue (for example, the Texas Tropics Nature Festival in McAllen, TX, is estimated to bring in nearly half a million dollars to the local economy).
- Look for local examples in your areas that illustrate how protective measures for endangered species have contributed to a healthy economy based on a healthy environment.

## Protecting Endangered Species is a Fundamental American Value.

- Stewardship for the land and wildlife is a part of the American tradition, from President Theodore Roosevelt to the writings of Thoreau and Aldo Leopold.
- Protecting endangered species saves a part of America's natural legacy which we will leave for future generations to enjoy.
- Major religious organizations have endorsed protecting endangered species because they believe in protecting divine creation.
- Americans never turn away from something that is worth doing, like saving endangered species, just because it might be tough. They are proud of saving the bald eagle and look forward to other successes. They do not like failures and many Americans regret losses of important parts of our natural heritage, like the extinction of the passenger pigeon. This attitude was summed up best by a child who wrote: "Why save endangered species? Because we can."

U.S. Fish & Wildlife Service  
1 800/344 WILD

<http://endangered.fws.gov/kids/index.html>

June 1998

*endangered*  
*Knowlton's cactus*  
(*Pediocactus knowltonii*)  
by Robert J. Savannah







## U.S. Fish & Wildlife Service

# You and Your School

*What you can do to help conserve rare, threatened, and endangered species and their habitats*

### Awareness and Understanding— You and Your Community

- "Adopt" an endangered species native to your area, find out how you can help conserve it, and inform the citizens in your community about your adopted plant or animal with speeches, newspaper articles, brochures, buttons, signs, videos, etc.
- Start a school newspaper to tell others about endangered species.
- Produce Public Service announcements about environmental issues you care about and distribute them to the media.
- Conduct a community awareness survey. Write a newspaper column for a local paper to educate members of the community about their environment.
- Sponsor an environmental seminar or debate for both students and the community. Topics could include endangered species, water quality, recycling, composting, and environmental alternatives to harmful practices.
- Identify causes of erosion. Develop and distribute a stream or watershed protection guide.

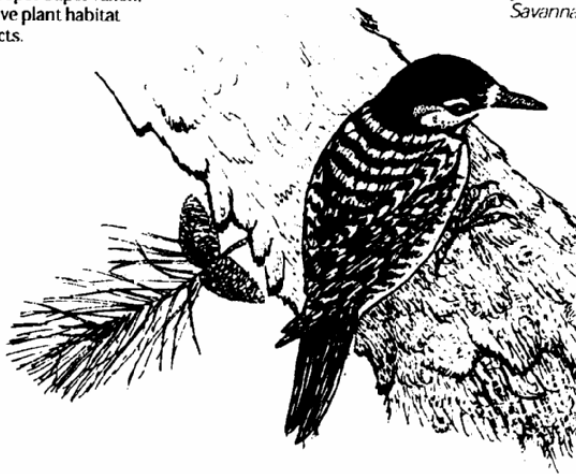
### Habitat Restoration

- Hold a school Arbor Day tree planting. Invite local officials.
- Replant riverbanks, under supervision, with native plants to anchor the soil and provide wildlife habitat.
- Adopt a stream, wetland or watershed. Monitor water quality and the health of local plants and animals. Distribute your findings.
- Participate in river cleanups.
- Plant a garden on your school grounds to attract wildlife, birds, and butterflies.
- Build homes for bats and birds, and have the project certified by National Wildlife Federation's Backyard Wildlife Habitat program.
- Adopt an area of your school's playground, and then develop a plan to improve it.
- Conduct a public awareness campaign on the threats of non-native, invasive or exotic species. Under proper supervision, participate in native plant habitat restoration projects.

### Sustainable Use of Earth's Resources

- Conduct a school energy audit. Brainstorm ways the school could lower energy use.
- Challenge other schools in your community to an energy conservation contest.
- Establish a school energy committee. Read energy conservation tips during morning announcements.
- Conduct a waste audit at school and identify materials that can be recycled or re-used.
- Establish a school organic garden, and teach others the techniques you've learned.
- Participate in an annual bird count.

*endangered  
red-cockaded  
woodpecker  
(Picoides borealis)  
by Robert J.  
Savannah*



U.S. Fish & Wildlife Service

<http://endangered.fws.gov/kids/index.html>

June 1998



U.S. Fish & Wildlife Service

# Where Can I Find It?

## *Beginner's Guide to the Endangered Species Home Page*

<http://endangered.fws.gov/kids/index.html>

Welcome to our Home Page!

<http://endangered.fws.gov/kids/index.html>

### Information Items in Our Web Site Include:

- the U.S. List of Endangered and Threatened Wildlife and Plants, updated monthly;
- Species accounts and images;
- Proposed and candidate species information;
- the Boxscore, which is a count of endangered species listings and recovery plans by species group;
- Maps;
- The Endangered Species Act of 1973, as amended through the 100th Congress;
- Policies;
- State counts and lists;
- Frequently asked questions;
- Contact information;
- Recovery activities;
- the *Endangered Species Bulletin*;
- A gallery of ecosystem photos;
- Links to other sources of information;
- "Endangered Means There's Still Time" slide show; and
- A Kids' Corner, featuring resource lists, activities and a teacher's guide.

### Can I Find Information About Individual Species?

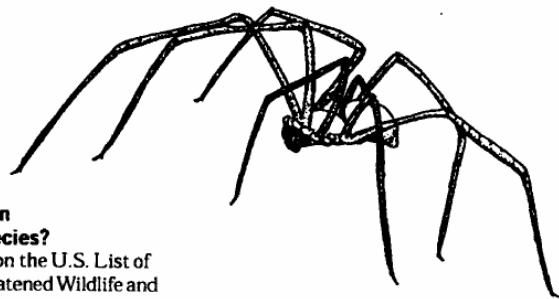
Yes. For each species on the U.S. List of Endangered and Threatened Wildlife and Plants (a.k.a. the List), a separate species profile is available that gives information about range, date of listing, critical habitat, special rules, Federal Register citations, and availability of approved recovery plans. In addition, you'll find linked files for many species, containing other biological and management information, images, and links to other Web sites where additional information can be found. Our goal is to have a reference page for each endangered and threatened species! Future plans include species accounts (fact sheets) for all listed species, completion of an endangered species image library, and a complete index of recovery plan titles by species.

### How Should I Begin?

The best way to learn more about this new electronic library of endangered species information is to check it out yourself. The FWS World Wide Web address is: <http://www.fws.gov>. From the comfort of your own computer or at an Internet seat at a public library, simply use your own Internet browser and type

<http://www.fws.gov>

at the Document Location prompt. This will bring you to the Fish and Wildlife Service's general information and welcome page. Click on *Endangered Species* in the table. You will automatically be taken to the Endangered Species Home Page.



endangered Tooth Cave spider  
(*Neoleptoneta myopica*)  
by Karen Day Boylan

### Can I See the List of Threatened and Endangered Species?

Yes. From the Endangered Species Home Page, select *Listed Species Indexes & Counts* under the *Species Information* section. Then choose from the categories: *vertebrate animals* (mammals, birds, reptiles, amphibians, and fishes); *invertebrate animals* (clams, snails, insects, arachnids, and crustaceans); *non-flowering plants*; *flowering plants*; or by *FWS Region* (Pacific, Southwest, Great-Lakes, etc).

For example, say that you are looking for information on the bald eagle, our national bird. Select *Listed Species Indexes & Counts*, then choose *Index - Vertebrate Animals*, then click on *Birds*. You will be given an alphabetical listing of birds on the U.S. list. This list indicates the lead FWS region, what the species' federal status is ("E" is for endangered, "T" is for threatened, "XN" for nonessential experimental population, "E" [or "T"] (S/A) for similarity of appearance to a listed species, "XE" for an essential experimental population), the common name of the species, and the scientific name. You will

find information on the bald eagle under *Eagle, bald*. If you click on the scientific name, in this example: *Haliaeetus leucocephalus*, a profile of the bald eagle's listing will be displayed, which includes when it was listed, whether there is a recovery plan for this species or not, where the species is likely to be found (State and other countries), and other information. Some species, such as the bald eagle, also have an asterisk (\*) before the scientific name. If you click on the \*, you will be taken to what we call the "hub file" for the species. This file links to other sites with materials on this particular species such as fact pages, recovery plans, press releases, State web sites, etc.

#### Can I Print the List?

Yes. You can print out the List as it appears on your screen (type will be very small), or you can view and print the entire List in exactly the same format (PDF) as it appears in the official edition published by the Government Printing Office.

To print the List or get the file in PDF format, get to the Endangered Species Home Page. Scroll down and click on *The List & Database Files for Download* under the *Species Information* section. Because the List is large, it is divided into *Animals*, *Plants* and *Delisted* species. The first grouping is to download, view and print the file in PDF format. The second group is for printing or downloading the List in ASCII text format.

#### Looking at the List in PDF Format

To view and print these files as they appear on the official Government Printing Office publication, you will need to download *Acrobat Reader* software, which is available for free via this web page. To get *Acrobat Reader*, click on *Adobe, Inc.* and follow the instructions.

Please remember, when downloading the file to your computer, make sure when naming your document that you give it the PDF extension.

#### Can I Search for a Species?

If you want to go quickly to a specific species, there is a search capability for this web page. From the Endangered Species Home Page, select *Species Links, Accounts & Images Search* from the left column. Enter either the common or scientific name. Click *Search*. A list of matching records will be provided. Click in the *htmlLink* column on the one which most closely resembles your request.

You will be taken to the file about that particular species. A picture will be shown if one is available. Links to other Internet sources which describe the species will also be provided, if available.

#### How Many Species Are in My State and Which Ones?

From our home page, you can also find out how many federally-listed threatened and endangered species are in your State. To see a map with a total by state, select *State Counts*, under the *Species Information* section. A map will display with the current distribution of federally-listed species by State/territory.

To see which species are in a particular State, from the *Species Information* section on the Endangered Species Home Page, select *State List*. The list is organized by FWS Region (Pacific, Southwest, Great Lakes, etc.). A list of which States are found in that region is provided to make it easier for you to select the region you want. Once you select it, then the list for each State in that region will be displayed.

#### Can I Find Other Links and Information Sources?

A hotlist of sites relevant to the U.S. Fish and Wildlife Service's mission, along with other search engines, is also available via our Help page, or at "<http://www.fws.gov/hotlist.html>". You may find that clicking on our endangered species *Guide to Other Related Information* is useful, too. It is located at "<http://www.fws.gov/r9endspp/sites.html>".

#### Reports & Plans

You can also use the Fish and Wildlife Reference Service (FWRS) to request, for a nominal fee, copies of reports produced by State fish and wildlife agencies. These reports are the results of research studies supported by Federal Aid in Sport Fish Restoration Act and Federal Aid in Wildlife Restoration Act funding. FWRS also provides access to reports produced by the Anadromous Fish Conservation Program, the Endangered Species Grant Program, and the Cooperative Fish and Wildlife Research Units.

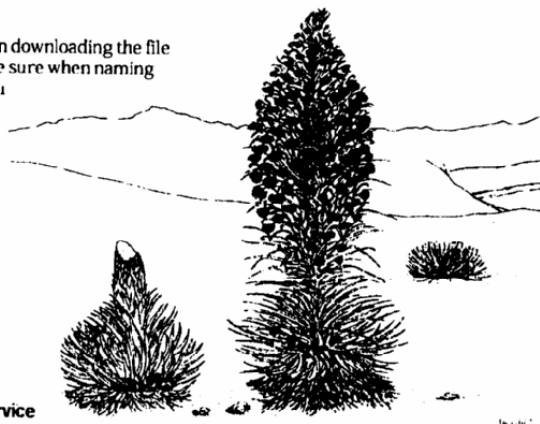
Please note that endangered species recovery plans are available through this service. To order a copy, follow the instructions located at "<http://www.fws.gov/fwrefser.html>".

#### Information for Kids and Teachers

The newest feature to our home page is a *Kids Corner*. From this page, junior fish and wildlife biologists, the public, and you can do a endangered species crossword puzzle, learn of ways to help save the environment, make your own *Risky Creatures* game, look at or print FWS fact pages on a particular species (called biologies), check out the "Endangered Means There's Still Time" slide show, view the Mauna Kea silversword family album through the *Creature Features!* section, and link to other educational resource materials on the Web through the *Hey Teachers!* and *Where Can I Find It?* sections.

#### Still Confused?

Still looking for specific information which you can't find? Send us an e-mail message. Our Internet E-mail address is "[R9FWE\\_DES.BIM@mail.fws.gov](mailto:R9FWE_DES.BIM@mail.fws.gov)". Also, please send us a message if you have suggestions or comments regarding our home page. We are always looking for ways to make it more useful to you.



U.S. Fish & Wildlife Service

<http://endangered.fws.gov/kids/index.html>

June 1998

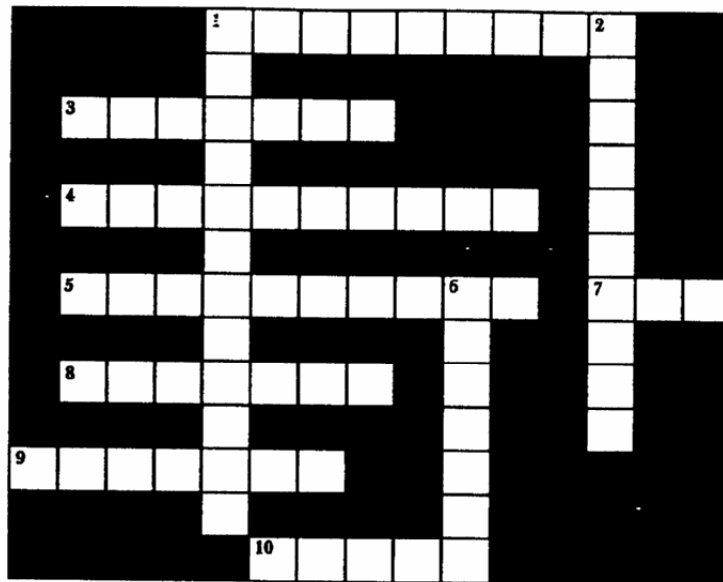
endangered Mauna  
Kea silversword  
(*Argyroxiphium  
sandwicense* spp.  
*sandwicense*)  
by Karen Dun Saylor



U.S. Fish & Wildlife Service

# Endangered Species Crossword Puzzle

*OK, Junior Fish and Wildlife Biologists, it's time to test your knowledge.*



## ACROSS

1. our national symbol, an endangered species success story

3. ultimate goal, for every species, of the Endangered Species Act

4. ... is a word that means gone forever: Kaput. Finito.

5. word meaning a species could become endangered in foreseeable future

7. the abbreviation for the Endangered Species Act

8. troubled shellfish in America's streams

9. loss of a species' home, or its \_\_\_\_\_, is the biggest threat

10. an acronym for the fish/wildlife federal agency that protects endangered species & habitats and manages the National Wildlife Refuge System

## DOWN

1. a new word meaning the vast variety of life in all its forms

2. word meaning "in immediate danger of extinction"

6. these species invade, and crowd the native species

U.S. Fish & Wildlife Service

<http://endangered.fws.gov/kids/index.html>

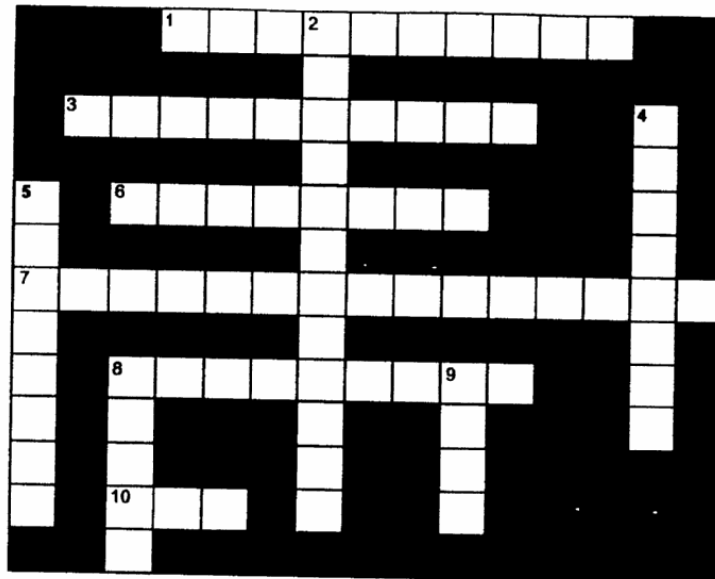
June 1998



U.S. Fish & Wildlife Service

# Endangered Species Crossword Puzzle 2

OK, Junior Fish and Wildlife Biologists, it's time to test your knowledge again!



## ACROSS

1. "\_\_\_\_\_ Means There's Still Time"
3. a species which is vulnerable but not yet in immediate danger of extinction
6. elected body that passes legislation such as the Endangered Species Act
7. areas of habitat believed essential to the conservation of an endangered or threatened species

8. plants and animals which are not yet proposed for listing as threatened or endangered

10. the Act's abbreviation

## DOWN

2. choices in your course of action

4. U.S. Fish and Wildlife Service biologists determine that a species is in \_\_\_\_\_ when a federal action would reduce the likelihood of a endangered or threatened species to survival and recover in the wild.

5. the ultimate goal of the Endangered Species Act

8. acronym for the 130-nation agreement which regulates the exporting and importing in endangered species of wild fauna or flora

9. the legal term for any harassing, harming, or otherwise hurting of a threatened or endangered species

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<http://endangered.fws.gov/kids/index.html>

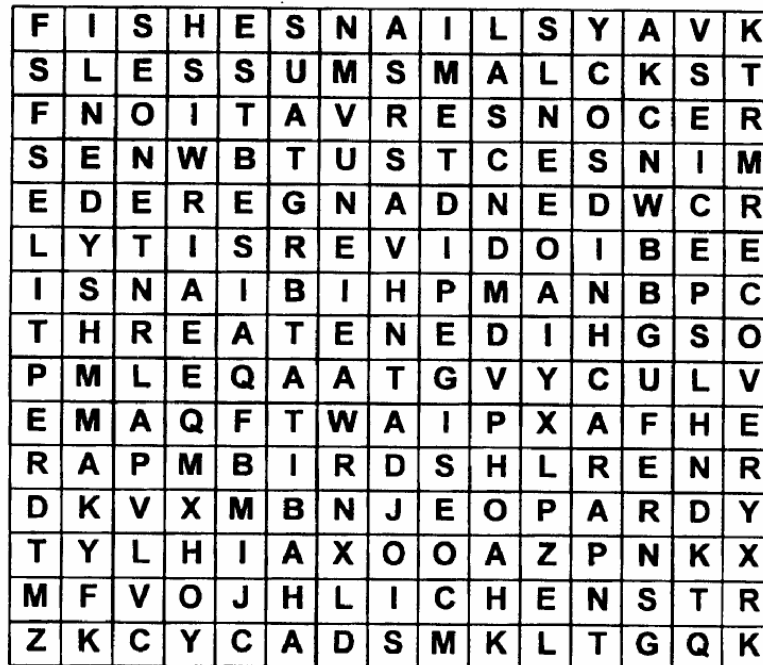
June 1998



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# Endangered Species Word Find

OK, Junior Fish and Wildlife Biologists, try and find all the words listed below. Warning: Words may be backwards, upside-down and diagonal in this word search!



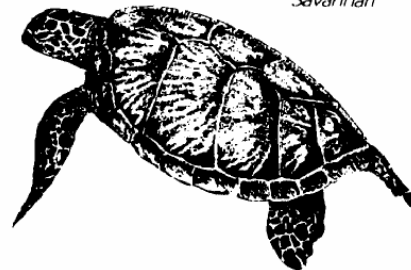
## WORDS TO FIND:

amphibians  
arachnids  
biodiversity  
birds  
clams mussels  
conifers

conservation  
cycads  
endangered  
ferns  
fishes  
flowering plant  
habitat

insects  
jeopardy  
lichens  
mammals  
recovery  
reptiles  
snails  
species  
threatened

endangered  
green sea turtle  
(*Chelonia mydas*)  
By Robert J.  
Savannah



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1 800/344 WILD

<http://endangered.fws.gov/kids/index.html>

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# Risky Critters!

*Build & Play Your Own Game*

Are you a sagacious scientist or a laser-witted layperson? Barrage your brain with a battery of beastly biology questions bound to bolster your blossoming knowledge! Play this game by setting up a game board, see following page, then choose a category and a point value (the more points, the more difficult the question).

Challenge a partner to play!

## Points and Questions

### Category: Birds

- 10 I am our national symbol. My recovery has been so successful that I have been downlisted from 'endangered' to 'threatened.' What am I?
- 20 I am the fastest bird in the world. I can dive at 200 miles per hour! What am I?
- 30 I'm a large white, long-necked bird that was down to 20 left in 1941. Today there are about 300 of us because of the help we get from people who care. I like to dance and migrate long distances. What am I?
- 40 I'm the largest North American bird. I weigh 25 lbs and look like a vulture with my 9.5 foot wing span. There are fewer than two dozen of me in the wild, but biologists are raising more of us in captivity. What am I?
- 50 I have a huge beak that holds lots of fish, and I love to dive out of the sky for them. I've been removed from the endangered species list because I've recovered. What am I?

### Category: Mammals

- 10 I weigh about 1200 lbs and swim in Florida's warm waters. Early sailors mistook me for a mermaid, but close-up I look like a walrus without tusks. What am I?

- 20 I am a big predatory cat that lives in the Florida Everglades. There are only about 50 of us left. What am I?
- 30 I travel in packs and have recently returned to Yellowstone National Park. I'm usually gray, but can be brown, black, white, or a combination of these colors. What am I?
- 40 Poachers kill this huge striped cat for its body parts. The bones are ground up and dried and used for medicines in Asia. Claws are used in jewelry. Fewer than 5,000 remain worldwide. What is it?
- 50 Black, white, Indian or greater one-horned, Javan and Sumatran. Poachers kill me for my horn, which is carved into dagger handles. Less than 12,000 of us huge, nearsighted herbivores are left. What am I?

### Category: Crawl, Hop, Swim, and Grow

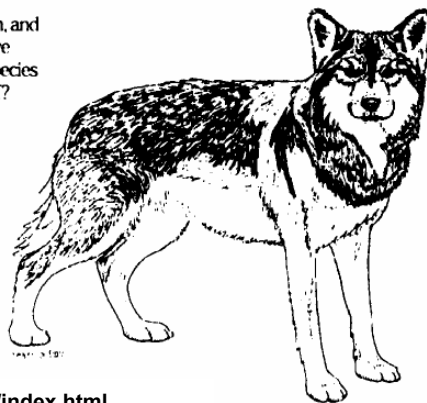
- 10 This large reptile was nearly wiped out by trade in its valuable skin, but has recovered and was taken off the endangered species list. What is it?
- 20 I am slow-moving and I live in the desert. I can live to be more than 100 years old. I carry my shell with me, and like to

live underground where it's cooler. What am I?

- 30 These amphibians have declined globally to the point where biologists are concerned about ozone depletion in the atmosphere. What are they?
- 40 Inflated heelsplitter, Arkansas fatmucket, speckled pocketbook, fine-rayed pigtoe. What are they?
- 50 What do more than 457 animals and 668 plants have in common?

### Category: Endangered! Recovered!

- 10 If this happens, a species will be gone forever. What is this word?
- 20 What is the law that protects plants and animals that are in danger of disappearing forever?
- 30 What word means "any species which is in danger of extinction throughout all or a significant part of its range"?
- 40 What is the ultimate goal of the Endangered Species Act?
- 50 What do habitat loss, introduced species, pollution, population growth, and over-consumption of resources do to fish, wildlife and plants?



endangered  
gray wolf  
(Canis lupus)  
By Karen Day  
Roylin

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# Risky Critters!

## Answers and Directions

### How to build your own "Risky Critters!" gameboard

1. Write out the question on top half of a sheet of paper. Write answers on bottom half of the sheet. Fold in half.

Tape folded question/answer sheet to foam core board.

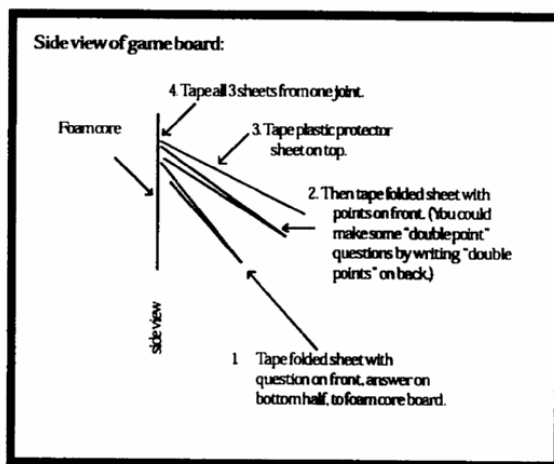
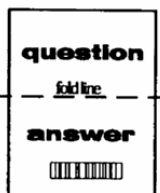
2. Write point value of question on top half of another piece of paper. Fold in half.

Tape folded point value sheet above question/answer sheet. (You could make some "double point" questions by writing "double points" on bottom half of point value sheet.)

3. If using in bad weather, tape plastic protector sheet above that (transparencies work well).

4. Arrange in same pattern as the game board layout (next page).

7. Have fun!



### Materials List

40 sheets of paper (8.5" x 11")

10 transparencies/protector sheets (8.5" x 11", cut in half)

1 poster size foam core board (20" x 40")

Tape

Questions/Answers

### Points and Answers

#### Category: Birds

- 10 bald eagle.
- 20 peregrine falcon.
- 30 whooping crane.
- 40 California condor.
- 50 brown pelican.

#### Category: Crawl, Hop, Swim & Grow

- 10 alligator.
- 20 desert tortoise.
- 30 frogs.
- 40 endangered and threatened mussels.
- 50 This is the number of species are on the U.S. List of Endangered and Threatened Wildlife and Plants (as of 12/31/97).

#### Category: Mammals

- 10 Florida manatee.
- 20 Florida panther.
- 30 gray wolf.
- 40 tiger.
- 50 rhinoceros.

#### Category: Endangered! Recovered!

- 10 extinction.
- 20 The Endangered Species Act.
- 30 endangered.
- 40 recovery.
- 50 They cause species to become endangered.

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# Risky Critters!

*Game Board*

Endangered! Recovered!	10	20	30	40	50
Crawl, Hop, Swim & Grow	10	20	30	40	50
Mammals	10	20	30	40	50
Birds	10	20	30	40	50

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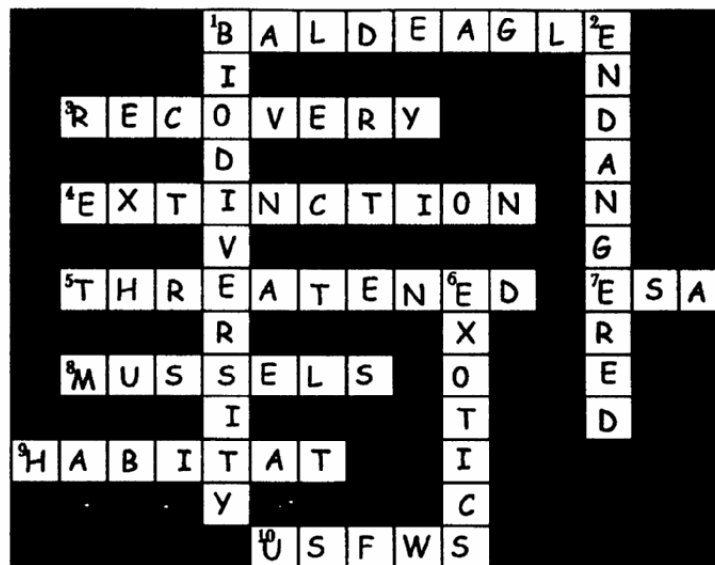


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# Endangered Species Crossword Puzzle

## Puzzle Answer Key

OK, you gave it your best try. Here are the answers.



### ACROSS

1. our national symbol, an endangered species success story

3. ultimate goal, for every species, of the Endangered Species Act

4. ... is a word that means gone forever. Kaput. Finito.

5. word meaning a species could become endangered in foreseeable future

7. the abbreviation for the Endangered Species Act

8. troubled shellfish in America's streams

9. loss of a species' home, or its \_\_\_\_\_, is the biggest threat

10. an acronym for the fish/wildlife federal agency that protects endangered species & habitats and manages the National Wildlife Refuge System

### DOWN

1. a new word meaning the vast variety of life in all its forms

2. word meaning "in immediate danger of extinction"

6. these species invade, and crowd the native species

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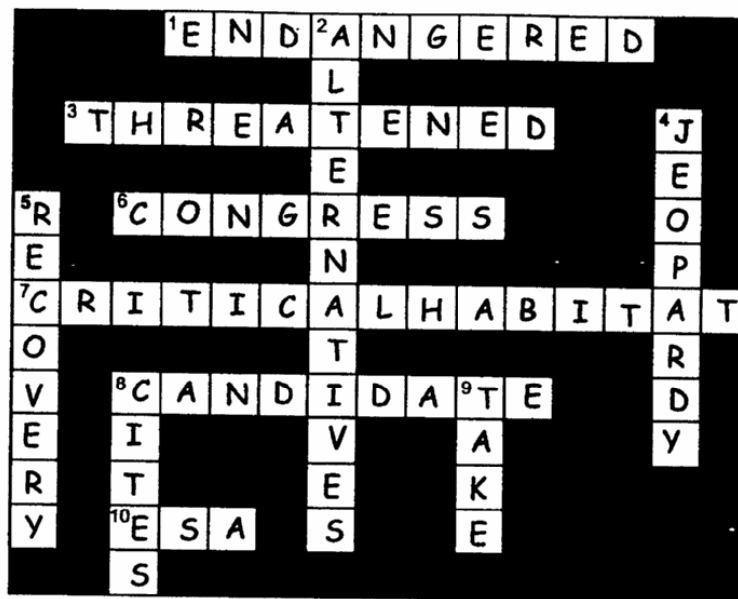


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# Endangered Species Crossword Puzzle 2

## Puzzle Answer Key

OK, you gave it your best try. Here are the answers.



### ACROSS

1. "\_\_\_\_\_ Means There's Still Time"
3. a species which is vulnerable but not yet in immediate danger of extinction
6. elected body that passes legislation such as the Endangered Species Act
7. areas of habitat believed essential to the conservation of an endangered or threatened species

8. plants and animals which are not yet proposed for listing as threatened or endangered

5. the ultimate goal of the Endangered Species Act

8. acronym for the 130-nation agreement which regulates the exporting and importing in endangered species of wild fauna or flora

9. the legal term for any harassing, harming, or otherwise hurting of a threatened or endangered species

### DOWN

2. choices in your course of action
4. U.S. Fish and Wildlife Service biologists determine that a species is in \_\_\_\_\_ when a federal action would reduce the likelihood of a endangered or threatened species to survival and recover in the wild.

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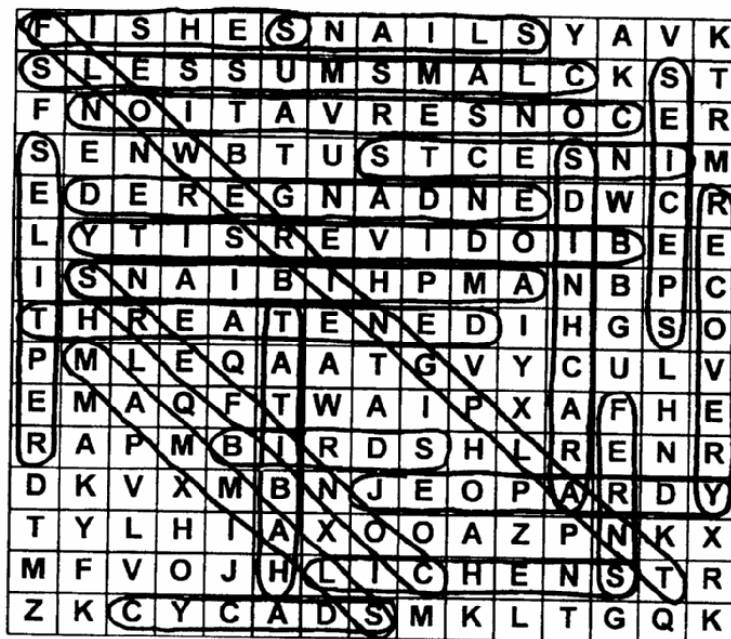


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# Endangered Species Word Find

## Puzzle Answer Key

OK, Junior Fish and Wildlife Biologists, how did you do? Now try to find a picture of each of the words listed below. Remember, you can always get on the Internet and check out our endangered species web page at < <http://www.fws.gov/r9endspp/endspp.html> >. We have lots of pictures on our web site for you to choose from!



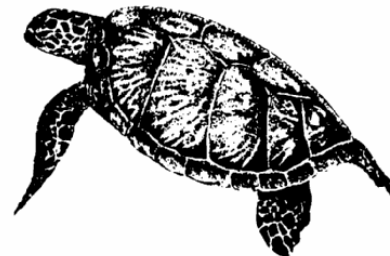
### WORDS TO FIND:

amphibians  
arachnids  
biodiversity  
birds  
clams  
mussels  
conifers

conservation  
cycads  
endangered  
ferns  
fishes  
flowering plant  
habitat

insects  
jeopardy  
lichens  
mammals  
recovery  
reptiles  
snails  
species  
threatened

endangered  
green sea turtle  
(*Chelonia mydas*)  
By Robert J.  
Savannah



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The School Board of Miami-Dade County, Florida, adheres to a policy of nondiscrimination in employment and educational programs/activities and strives affirmatively to provide equal opportunity for all as required by:

**Title VI of the Civil Rights Act of 1964** - prohibits discrimination on the basis of race, color, religion, or national origin.

**Title VII of the Civil Rights Act of 1964**, as amended - prohibits discrimination in employment on the basis of race, color, religion, gender, or national origin.

**Title IX of the Education Amendments of 1972** - prohibits discrimination on the basis of gender.

**Age Discrimination in Employment Act of 1967 (ADEA)**, as amended - prohibits discrimination on the basis of age with respect to individuals who are at least 40.

**The Equal Pay Act of 1963**, as amended - prohibits sex discrimination in payment of wages to women and men performing substantially equal work in the same establishment.

**Section 504 of the Rehabilitation Act of 1973** - prohibits discrimination against the disabled.

**Americans with Disabilities Act of 1990 (ADA)** - prohibits discrimination against individuals with disabilities in employment, public service, public accommodations, and telecommunications.

**The Family and Medical Leave Act of 1993 (FMLA)** - requires covered employers to provide up to 12 weeks of unpaid, job-protected leave to "eligible" employees for certain family and medical reasons.

**The Pregnancy Discrimination Act of 1978** - prohibits discrimination in employment on the basis of pregnancy, childbirth, or related medical conditions.

**Florida Educational Equity Act (FEEA)** - prohibits discrimination on the basis of race, gender, national origin, marital status, or handicap against a student or employee.

**Florida Civil Rights Act of 1992** - secures for all individuals within the state freedom from discrimination because of race, color, religion, sex, national origin, age, handicap, or marital status.

**School Board Rules 6Gx13- 4A-1.01, 6Gx13- 4A-1.32, and 6Gx13- 5D-1.10** - prohibit harassment and/or discrimination against a student or employee on the basis of gender, race, color, religion, ethnic or national origin, political beliefs, marital status, age, sexual orientation, social and family background, linguistic preference, pregnancy, or disability.

*Veterans are provided re-employment rights in accordance with P.L. 93-508 (Federal Law) and Section 295.07 (Florida Statutes), which stipulate categorical preferences for employment.*

REVISED 8/1/01