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FUN FOR KIDS

A COOPERATIVE PROJECT OF THE SANTA BARBARA NEWS-PRESS AND THE EDUCATORS' ROUNDTABLE, PUBLISHED MONTHLY TO PROMOTE LEARNING AMONG YOUNG READERS IN NATURAL SCIENCE, HISTORY, TECHNOLOGY, AND ART

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This Month's Theme: Discovering California Wildlife

Investigating the Island Fox

By Katie Holder, Santa Barbara Zoo

Did you know that California has a carnivore that can only be found in our state? Meet the island fox. This very special fox lives on six of the eight Channel Islands. The island fox is a lot like the gray fox that you may see in your own backyard, but it has some special differences.

The island fox is much smaller than the gray fox. An adult island fox only weighs about five pounds. A gray fox can weigh thirteen pounds! Also, their fur is more reddish colored than gray foxes, and they have one less tail bone.

Many groups work together to study and protect the island fox. There are many different ways to study foxes. Scientists use radio collars on foxes as one way to study and track them. (Check out the activity below to learn more.) These collars also send out a special signal when the animal wearing them dies.

Santa Barbara Zookeeper Lindsay Koch holds a wild island fox before a check-up!



Photo by U.S. Fish and Wildlife Service

This gives scientists a chance to find out what happened to them and also protect other foxes.

Scientists and vets also work together to keep the island foxes healthy. Other animals carry viruses that can kill foxes. To protect the foxes, vets and scientists trap island foxes and give them shots. These shots work just like the shots you get from the doctor! The scientists also give the foxes a check-up before letting them go.

The island fox is an amazing animal, and the scientists that protect them work really hard to keep them safe. Want to see an island fox? You can visit the Channel Islands National Park or the new California Trails exhibit, opening on Earth Day, at the Santa Barbara Zoo!

Catch a Glimpse of the California Condor

By Piper Presley, Santa Barbara Zoo

Imagine a bird that has a wingspan almost twice your height! That bird is the California condor. California condors have a wingspan of almost ten feet. Condors are large, black vultures with a bald, red head.

They can be found flying over the Pacific Coast. Locally, these birds can be seen in the Angeles and Los Padres National Forests. Unlike many birds, condors do not build nests. To lay eggs, they find holes in cliffs or trees.

California condors have very interesting eating habits. Condors play an important part in the food chain because they eat dead animals, also known as carrion. For some this may seem gross, but for condors it is a natural part of their diet!

Each condor has a tag on it with a number. Each tag can be tracked by researchers to learn more about where they fly, what they eat, and anything else they do that we might have questions about. Using the tags, we learned that condors can fly 150 miles in a single day!

There is a lot we still do not know about the California condor, because there are very few condors left in the wild. Many people are working together to learn more about them! If you visit the Los Padres National Forest or Angeles National Forest, you may be lucky enough to catch sight of these interesting animals. After the opening of the California Trails exhibit on Earth Day, you can be sure to see California condors at the Santa Barbara Zoo.



A condor spreads its wings to warm in the sun.

U.S. Fish and Wildlife Service

Scientists from the Santa Barbara Zoo and the U.S. Fish and Wildlife Service use an antenna to locate California condors.



Photo by Josh Charlton, Santa Barbara Zoo

Tracking Tracks — Using Technology to Watch Wildlife

By Liz Mason Gaspar, Santa Barbara County Parks

A very important part of any wildlife study or wildlife restoration is keeping track of an animal's whereabouts. Where does it go in a day? In a week? Season to season? Year to year? How far does it travel? When biologists study animals in the wild, there are very useful tools that they can use.

To find out where an animal goes, scientists can attach a special radio to the animal. Then scientists can listen to that radio to track the animal as it moves. How does that work?

There are many forms of energy in the universe, and we humans have learned how to use some of that energy in communications technology. You are using this technology when you speak into a phone, watch television, or listen to the radio. Biologists use communication technology called telemetry to track many kinds of wildlife.

There are several kinds of telemetry that biologists use. Most telemetry tracking systems need three things in order to work: 1. a transmitter; 2. an antenna; 3. a receiver. The transmitter is attached to the animal. It is powered by a battery, and it sends out a radio signal (really just another form of light energy) that is picked up by the antenna. Next, the antenna sends the signal to the receiver.

If your parents' car has a radio, it uses similar technology. When you turn on the radio to listen to music, you are hearing your favorite songs through the receiver. The receiver got the radio signal from the antenna on the car. The antenna picked up the signal from the transmitter—the radio station playing the music.

Using telemetry, biologists with the Institute for Wildlife Studies have learned that since a bald eagle named Stephen Jr. left Santa Cruz Island, he has moved north through California, Oregon, Washington, and British Columbia. Recently, he has flown back south to Klamath Lakes. Now, he's back in town. He was seen and photographed on the campus of the University of California at Santa Barbara. Maybe Stephen wants to take a class in telemetry!

Telemetry helps us understand animals that can be very secretive, hard to find, far away, or just plain impossible to watch and study through observation. Radio telemetry is used to track all kinds of living creatures, including the bald eagle, California condor, Island fox, fish, mountain lions, mule deer, snakes and other reptiles, bats, and more.

Appreciation goes to Dr. Doug Fischer of Cal State Northridge; Joe Allen at Advanced Telemetry Systems (atstrack.com); Dr. Peter Sharpe of the Institute for Wildlife Studies (iws.org); and Dr. Peter Mason of CalTech.

Now Do This! Track an Eagle Activity

By Liz Mason Gaspar, Santa Barbara County Parks

You can track Stephen Jr. yourself by going to the Institute for Wildlife Studies website at www.iws.org. Go to **Interactive**, click on **Track an Eagle**, then click on **Bald Eagles**. Follow the directions to use the interactive map. Can you answer the following questions using the map? You can find the answers below.

1. Using the scale of distance on the map, can you estimate how far it is from Santa Cruz Island to the California/Oregon border?
2. How long did it take Stephen Jr. to fly that distance?
3. How far did Stephen Jr. fly between July 5 and Sept. 2, 2006?
4. How far can Stephen Jr. fly in one week?
5. Stephen Jr. left Santa Cruz Island on July 6, 2006. When did he return? How long did he stay?

Look at the photos below of Eagle 46, named Stephen Jr., who was released on Santa Cruz Island in April 2006. Can you see the transmitter on his back?



Photos by Roger Millikan

Answers: 1. About 900 kilometers; 2. About 10 days; 3. About 2,050 kilometers; 4. About 450 miles; 5. March 23, 2006. Until September 10, 2008, or about 6 months.

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