



Southern Nevada WILD

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Urban Wildlife

When is wildlife a nuisance? A **nuisance** is something that is bothersome or causes harm. Do we ever consider wild animals as bothersome? Whether you live in a city or a rural part of Nevada, wild animals are your neighbors. When wildlife crosses the edge of urban development – where people live – there is a conflict. This is called the **wildland – urban interface**. Habitat loss, injury to animals, and the introduction of non-native species can threaten wildlife at this interface. Though wildlife does not usually threaten humans, many people are bothered by wildlife presence so close to their homes. Most wild animals will not bother you. They naturally fear humans and keep their distance—so long as they remain fully wild. But there are times when food and water are scarce in wild areas. With golf courses, water fountains, garbage cans and pets so close, wildlife can be tempted to satisfy their hunger and thirst on human territory.

If wild animals regularly have access to food sources we provide, they may want more and lose their natural fear of humans. As this happens, they can even become aggressive. Game



wardens are called out when there is actual danger to human safety by an aggressive animal or when there is **depredation**, which means damage to property, including pets.

Here are some tips to help keep wildlife at a safe distance from our urban homes:

- Leave wildlife alone and do not feed it.
- Secure garbage cans and don't feed pets outside.
- Landscape to avoid hiding places.
- Keep your yard clean and neat.

You can learn more by downloading some great activity sheets at:

<http://www.aphis.usda.gov/ws/actshts.pdf>.

Predator—Prey Relationships

The search for food is what often draws wildlife into urban areas. Sometimes urban landscapes are attractive to smaller animals, and the animals that eat them follow them in. This is a basic ecological principle, called the predator – prey relationship. A **predator** is any animal that catches, kills and eats another animal. **Prey** is the animal that is eaten by the predator. Both are essential parts of nature's **food chain**. Many animals can be both predator and prey. A **top predator** is an animal that is not hunted by any other animal in a food chain.

Many factors, such as disease, climate and disturbance, influence how many predators and how many prey may be in an ecosystem. Often the number of predators increases or decreases according to the amount of prey that is available.

This pattern can be cyclic, with few prey and their predators one year, and many of them in other years. The predator-prey relationship keeps nature in balance. If there are not enough predators, then small herbivores like rabbits and rodents would be uncontrolled and cause damage to the habitat. Too many predators would end up competing with each other for food.

Predation also ensures another ecological principle, called **survival of the fittest**. Old, sick and weak animals are often preyed upon first.

Animals also develop **adaptations** to help them survive. Predators have adaptations that enable them to hide from their prey, and prey species have adaptations which defend against attack.



"Those who wish to pet and baby wildlife love them, but those who respect their natures and wish to let them live their natural lives, love them more."

- Edwin Way Teale



Bats



Yellow bat

Bats are one of the most unappreciated species of wildlife. Tall tales swirl around them, giving them a bad reputation. Is your first reaction to seeing a bat to scream and run away? Once you get to know them, you'll find them fascinating. There are many interesting and unique facts about bats. The first thing that most people cannot believe is that they are **mammals**. They are warm-blooded, have hair, and give live birth to their young. Sometimes they are compared to flying rodents, but in reality they are more closely related to humans! Their wings are actually like a human's arm and hand. Imagine that the five fingers are elongated and have a thin membrane between them. The

thumb extends slightly beyond the membrane. The membrane, or "webbed skin" stretches to the elbow and shoulder. From the smallest "finger," the membrane extends to the legs and feet, and also encompasses the tail. Usually the feet and tail extend out beyond the membrane. This is why bats are classified as **Chiroptera**, which means "winged hand." Another myth is that bats are blind. Bats can see quite well in the dark, some with very large eyes. They do use **echolocation** to help them find their prey. By sending out a call from their mouth or nose, bats can locate an object by listening for the echo. It tells them not only where the object is, but also the size and shape of it.

Bats are an important part of the ecosystem in Nevada. Twenty-four different bat species live here, and many of them are in danger of losing their habitat. Old gold and silver mines in Nevada are a favorite home for many of these species. Care has to be taken before closing off these mine shafts. Other bats require caves, rock ledges, or crevices in structures or vegetation. Besides special places to live, bats need a long source of open water to drink from while they are flying – it needs to be at least 10 feet long! Bats are also in danger of extinction because they reproduce very slowly, with only one baby, or **pup**, per year.

Bats don't mind sharing habitat - several different species of bats may use the same roost. When babies are born, **maternity roosts** are chosen for their warm temperature (80 – 90 degrees F), which the hairless pups need to keep warm. Males don't stay with the females in the maternity roosts, but will rejoin them in larger colonies when rearing is done. So the bats actually utilize several roosting areas throughout the year. Colonies can vary from 10 individuals in maternity roosts to about 200 at other times of the year. During the winter, some species of bats hibernate, while other species migrate. Mexican free-tail bats migrate from the Mojave Desert to Mexico.

Many people don't know that bats are more beneficial than they are harmful. Bats can eat thousands of insects every night. Some bat species in Nevada feed on mosquitoes that can carry diseases such as West Nile Virus. On the other hand, the chance of contracting rabies from a bat bite is extremely small. Only 1/2 of one percent of bats actually carry rabies and sustaining a bite normally only happens if a bat is handled. Another benefit that bats provide is their guano, which can be used as fertilizer.

The Nevada Department of Wildlife has two resources available to further your study of bats: a video entitled "Bats of Nevada," and a fold-out brochure entitled "Bats – Our Aerial Allies," which identifies the twenty-three species of bats in Nevada. Both can be requested from our Wildlife Education program.



Long-eared Myotis

Webbing as an Adaptation

Did you know that bats are not the only animals with webbed skin on their bodies? There are a number of other animals that have webbing as an adaptation to aid in locomotion. We're familiar with ducks, frogs and turtles having webbed feet, since they spend a lot of time in the water. Mammals such as beavers, otters, and even polar bears also have webbing between their toes to help them in swimming. Instead of the water going between the toes, the webbed foot catches and moves the water to propel the animals forward. There is a fishing cat that lives in Indonesia that also has webbed paws. Unlike most cats, its claws are not retractable, but that helps to catch the fish! Flying squirrels have extra skin along the sides of their bodies between the arms and legs. The skin flares out when they jump into the air and helps "catch the wind" like a parachute. There are also "flying" marsupials, such as gliders and several species of opossums. Flying dragons are actually lizards with expandable neck collars and flying fish have fins that unfold and beat the air like wings.

Bobcats



One of the most well-known residents of the Mojave Desert is the bobcat. Bobcats are in the wildcat family, and live throughout the United States. The bobcat is named for its tail, which is short and stubbed, or bobbed. Since it weighs only about twenty pounds, its small size might fool us, but a bobcat shouldn't be confused for a feral domestic cat. Bobcats are wild predators and should be respected. Stealth is one of this hunter's attributes. It has tufts of hair on its ears that enhance hearing and it also walks on its toes. Camouflage completes the animal's set of hunting adaptations, with a mottled coat of brown, gray and tan spots. Its food consists of birds, rodents, rabbits, and sometimes larger mammals. Bobcat habitat consists of low to mid-elevation rocky areas with crevices to hide in, from which they ambush their prey. Hunting primarily occurs at night.

In Nevada these are game animals, and can be harvested under the furbearer category. The wild bobcat population is generally very healthy, but they sometimes have difficulty in finding food and water during droughty years. It is at this time that they are attracted to our urban oases of waterfalls and loitering prey species. Hungry bobcats may venture into landscapes on the edge of town as a survival mechanism. If we are aware that they are usually just passing through, both people and cats can tolerate each other's presence.

Project **WILD**

Project Wild classes were held in February and although it was a little nippy for some of the outdoor activities, it was better than enduring the late-spring heat! Participants had a chance to put themselves in the world of Mojave Desert wildlife and experience the challenges that they face. Aquatic Wild classes were held in March – still not warm, but a little less windy. The second day of Aquatic Wild, held at NDOW's Lake Mead Fish Hatchery, proved to be a beautiful opportunity to see a mini wetlands at work. Participants were able to look for aquatic invertebrates as well as identify native and non-native plant species. NDOW staff will be attending a training in Lake Tahoe in May that will make them certified Wild facilitators. Then watch for both workshops again in the fall.



Endangered Species Day

May 16, 2008 is Endangered Species Day and the new slogan is "Leave No Species Behind." Use it to do something with your students to make them aware of the issues. The latest news is that the U.S. Fish and Wildlife Service (FWS) has proposed to list the polar bear as a threatened species. When a species is proposed for listing, information must be gathered on the health of its populations and habitat, and possible threats to them. Then it can be determined if listing is warranted and what action might be taken to protect both the species and its habitat. In the polar bear's case, it means protecting the northern ice fields. Other recent news in the world of endangered species includes the delisting of both the bald eagle and the gray wolf, which illustrates the successes accomplished by listing a species as endangered. For more information and teaching resources, go to <http://www.fws.gov/endangered/>.

ENDANGERED MEANS THERE IS STILL TIME



Wild Times

NDOW's conservation education program provides a variety of opportunities to appreciate wildlife, including wildlife watching classes and outings. As a follow-up to last issue's article on wildlife viewing, be sure to check the article in Nevada Magazine entitled "Into the Wild." It can be found at http://nevadamagazine.com/index.php/issues/read/into_the_wild/.

Then have your kids extend the experience with the Color Nevada Wild coloring book found at: http://www.ndow.org/about/pubs/ed/color_me_wild.pdf.

See you in the WILD!

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Animal Tracking Activity

How are your wildlife tracking skills? See if you can match the picture of each wildlife track to the animal that made it. Draw a line from the track to the animal's name. Then, see if you can identify the sign left by a wild animal in the photograph below. Do you know what animal left this sign?



1



2



3



4

- Golden Eagle
- Kit Fox
- Bobcat
- Mountain Lion
- Mule Deer
- Coyote
- Beaver
- Canada Goose
- Black Bear



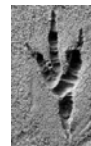
5



6



7



8



9

- ANSWERS:
- 1. Kit fox
 - 2. Canada goose
 - 3. Coyote
 - 4. Mule deer
 - 5. Black bear
 - 6. Bobcat
 - 7. Beaver
 - 8. Golden eagle
 - 9. Scat, left by deer