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Colorado's Wildlife Company



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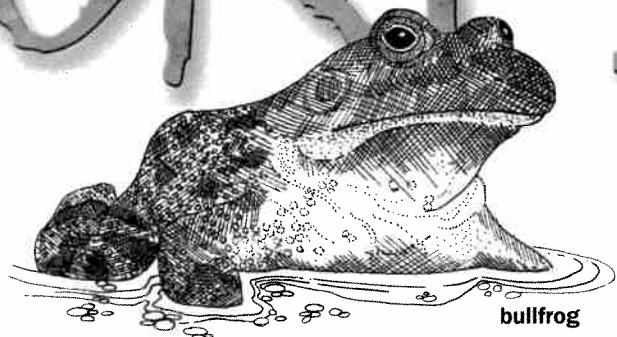


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HIP ON HERPS!

COLORADO'S REPTILES AND AMPHIBIANS

HERPS



bullfrog

THE CREEPIE-CRAWLIES

by Mary Taylor Young

Are there any herptiles crawling in your back yard?

If you've never heard the "H word," you're not alone. Webster's dictionary has no listing for herptile, but defines the science of herpetology as the study of reptiles and amphibians. The word root comes from the Greek word herpeton, meaning a creature that creeps or crawls. Many herpetologists—biologists who study these creatures—prefer the term herpetofauna. For simplicity, reptiles and amphibians together are often just called herps.

Though lumped under the same umbrella, amphibians and reptiles belong to distinctly different classes of animals, as different from each other as mammals are from birds. Both are "cold-blooded," meaning their body temperature is governed by the temperature of their environment rather than by heat generated by metabolism.

Colorado is a state in which prairie streams and ponds dry up each summer, winters reach sub-zero temperatures and drought can parch the land for years. So how does a cold-blooded herp survive in this capricious climate? By tap dancing. Lizards regulate their body temperature by moving in and out of sun and shade. They hibernate in winter under logs and in crevices, their body temperature dropping to just above freezing. Amphibians hibernate beneath leaf litter or in burrows at

the bottom of ponds. Wood frogs and western chorus frogs can tolerate being frozen. When conditions are warm and moist enough, the animals emerge from hibernation with one thing on their mind—breeding. In a dry summer, some amphibians may not emerge until the following year, hibernating through inhospitable conditions until things improve.

Herps produce a large number of eggs, only a small percentage of which will become adults. While most Colorado herps die in their first year, the species survives because this tap dancing succeeds at the population level.

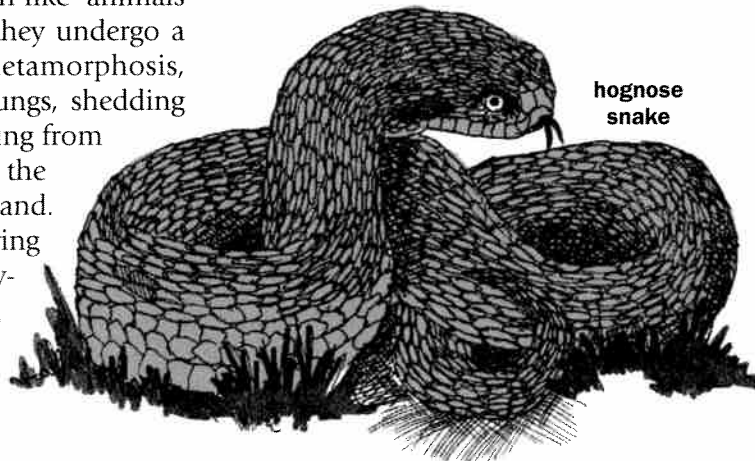
NATURE'S MAGICIANS

Amphibians are among nature's greatest magicians, bridging the biological world between water creatures and those that live on land. Beginning life as fish-like animals equipped with gills, they undergo a startling physical metamorphosis, replacing gills with lungs, shedding tail for legs and crawling from the water to complete the adult stage of life on land. Science aside, discovering tadpoles with partially-grown legs swimming around a pond is one of the delights of

childhood. There are seven species of frogs in Colorado, 10 species of toads and one salamander. Unlike fish, reptiles, birds and mammals, whose skin is protected by scales, feathers or hair, amphibians go naked into the world. Their absorbent, mucus-covered skin makes amphibians particularly vulnerable to toxins in water and air, and thus often the first victims of environmental pollution.

THE SCALES

Reptiles are much more abundant in our state than amphibians. They don't require water in which to lay their eggs and many are well-adapted to dry habitats. Colorado is home to 26 species of snakes, 19 species of lizards and five species of turtles. Few live above 6,000 feet though prairie and plateau lizards have been found at 9,200 feet and short-horned lizards at 11,000 feet. Many reptiles are killed by vehicles when they move onto roads to warm themselves in the sun.



hognose snake

GET INVOLVED WITH HERPS

Are Colorado's herps disappearing? Northern leopard frogs are now rarely seen along Front Range ponds where they were once common. Boreal toads once inhabited subalpine wetlands throughout the southern Rockies, but today there are just a few, highly localized populations. Northern cricket frogs have not been found in Colorado since 1979. Something is going on, but no one is sure what.

Biologists need information before they can act to protect declining species. The Colorado Herpetofaunal Atlas, an online, interactive database, is the Colorado Division of Wildlife (CDOW) newest tool for the conservation of herps. The atlas is compiling historic and ongoing observations about herps to answer questions such as: How abundant are they? Where do they live in the state? Are their populations declining? Because the state's biologists can only do so much, the Atlas needs the many eyes of nature-lovers interested in making field observations. An army of citizen scientists working in the field statewide will add hundreds of records to the knowledge base. Individuals, school classes, Scout and other groups are all encouraged to get involved.

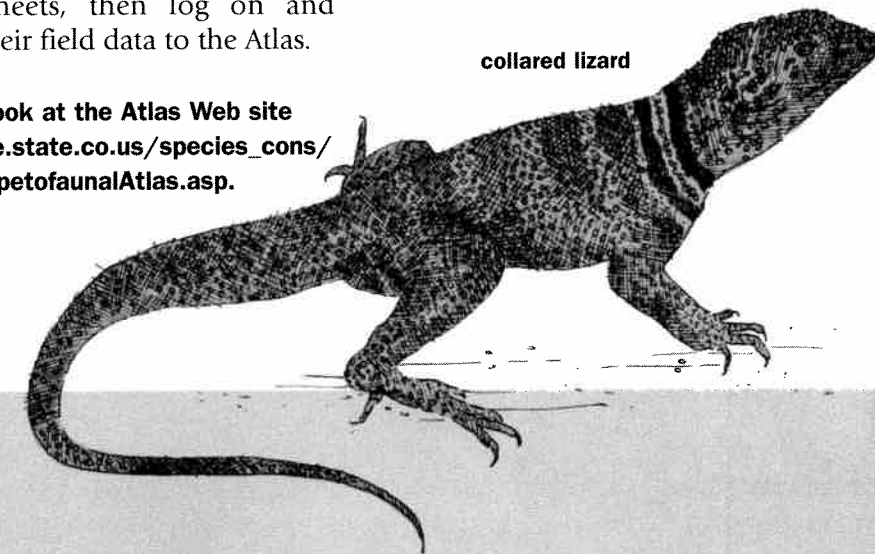
At the core of this interactive project is an online database with three components:

1. The species accounts offer photos, physical descriptions, habitat information and recordings of frog and toad songs to help users identify the creatures they see. There are tips for finding animals in the field as well as a glossary, a frequently asked questions page and links to other Web sites and CDOW personnel.

2. The database of 25,000 historical records offers background information and maps to help in field trip planning. It can be accessed by a table of information or a map format. After field sightings are validated, they will become a part of this database.

3. This component is the most fun—contributing field observations to the database. Before an outing, citizen scientists can download field survey sheets, then log on and submit their field data to the Atlas.

Take a look at the Atlas Web site www.wildlife.state.co.us/species_cons/HerpetofaunalAtlas.asp.



collared lizard

HERP RESOURCES

Amphibians and Reptiles in Colorado

by Geoffrey A. Hammerson is the definitive guide to the herp species of our state. It can be purchased through the CDOW Web site at <http://wildlife.state.co.us/shopDOW>.

Snakes In Question, Smithsonian Institution, is a fascinating guide to the world of snakes, written in question/answer format. Available through retail book outlets and the Denver Museum of Nature and Science.

Frog and Toad Calls of the Rocky Mountains, Vanishing Voices, Carlos Davidson, 1996 (Library of Natural Sounds, Cornell Laboratory of Ornithology) CD or audio cassette, available at Cornell Lab's Web site, www.sapsuckerwoods.com.

Colorado Herpetofaunal Atlas

online and interactive resource, http://wildlife.state.co.us/species_cons/HerpetofaunalAtlas.asp

Colorado Herpetological Society Web site

<http://coloherp.org>

Colorado's Wildlife Company past issues

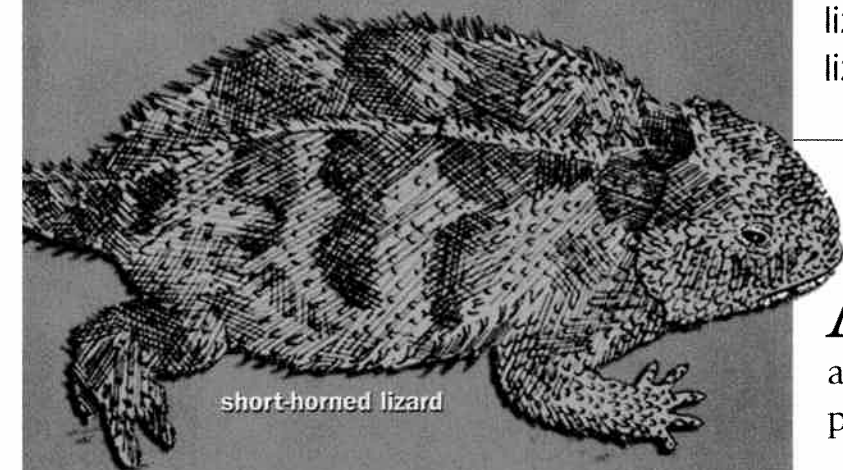
- 1990 Spring Harken! It's Spring
- 1990 Summer Summertime, and the Living Ain't Easy
- *1994 Spring Colorado's Underworld
- *1998 Fall A Place For Snakes
- *2003 Fall Chubs in The Tub
- * Issues available at http://wildlife.state.co.us/Colo_Wild_Co/homepg/cwindex.htm

MYTHS ABOUT HERPS

Snakes never sleep. A snake's eyes are covered by clear scales rather than moveable eyelids, leading to the idea that they are always awake and watchful. They do sleep, but with their eyes "open."

Handling toads gives you warts. Toads may have "warts," but they won't pass them along to you. They're really just natural bumps and mottling on the skin of toads, not true warts, which are caused by viruses.

All snakes are poisonous. There are only two species of venomous snakes in Colorado, the western rattlesnake and the massasauga. Contrary to opinion, rattlesnakes are not aggressive and, like most snakes, would rather escape than attack. The bite of any snake, venomous or not, could be painful and become infected, so it is best not to handle snakes unless you know how.



short-horned lizard

All lizards have sticky tongues they use to catch their prey. Some rainforest lizards, like chameleons, snare insect prey using a sticky tongue, but Colorado lizards grab prey with their jaws.



'MANDERS

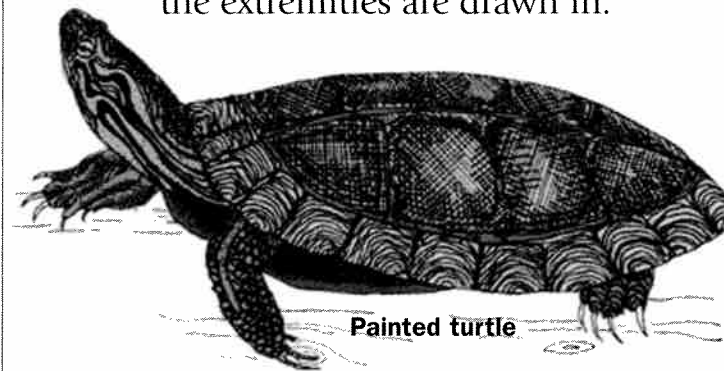
Salamanders often fool people because they are lizard-like in appearance (as adults), with long bodies and tails and more pronounced snouts than frogs and toads. But they are amphibians not reptiles, have smooth, moist skin, lack claws and completing their metamorphosis to land dwellers. In certain conditions, larval salamanders may become sexually mature and reproduce without completing metamorphosis (a physical change from immature to adult). The tiger salamander is the only salamander native to Colorado and it lives throughout the state, from the Eastern Plains to alpine lakes at 12,000 feet. Lakes with trout and other predatory fish, however, often have no salamanders because the fish feed heavily on the larvae.

Leapin' Lizards

Four-legged, long-tailed and quick-moving, lizards seem to typify the arid West, sunning themselves on canyon rocks or scampering over the sun-baked prairie. In Colorado, lizards are most abundant on the Eastern Plains and in western canyons and valleys. Most lizards use quick escape as their best defense, but the lumbering, plump-bodied horned lizard relies on cryptic coloration to blend into its surroundings and avoid detection.

TURTLE TALK

Turtles are among the most intriguing of creatures, especially to children, because they carry their "house" on their back. The turtle's shell is a defensive adaptation that distinguishes it from other reptiles, and other vertebrates. The shell is made of skin tissue that has hardened to be bone-like. When threatened, a turtle can pull its head, legs and tail within the shell. Some turtles, such as the ornate box turtle, have a hinged lower shell that can be tightly closed once the extremities are drawn in.

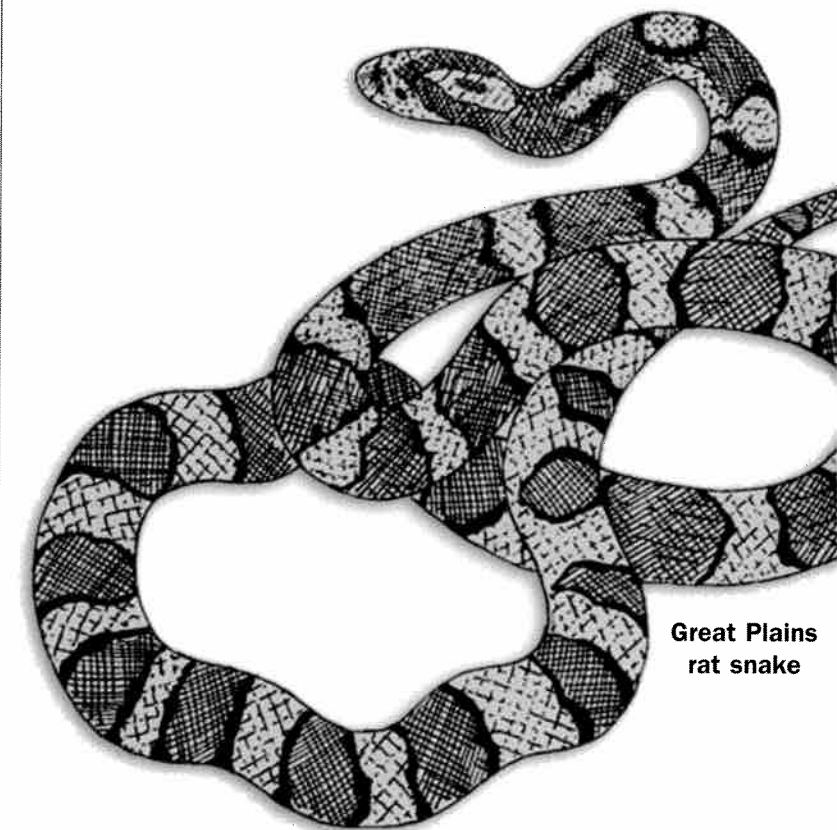


Painted turtle

COLORADO HERPS IN TROUBLE

As humans drained wetlands, controlled water flows, released pollutants into streams and developed habitat for agriculture, mining and urban development, Colorado's reptiles and amphibians suffered. Sudden dieoffs have biologists concerned about amphibian populations, both in Colorado and worldwide.

The following herps are classified as species of special concern: *northern cricket frog*, *great plains narrowmouth toad*, *northern leopard frog*, *plains leopard frog*, *Couch's spadefoot toad*, *triploid checkered whiptail*, *midget faded rattlesnake*, *longnose leopard lizard*, *yellow mud turtle*, *common kingsnake*, *Texas blind snake*, *Texas horned lizard*, *roundtail horned lizard*, *massasauga*, *common garter snake*, *wood frog*. The special concern category has no legal status but means the state's biologists feel the species bears watching as its numbers



Great Plains rat snake

SNAKE BASICS

The first thing you notice about a snake is what it doesn't have—legs. Snakes move by slithering, using rhythmic contractions of their long, muscular bodies. Their belly scales, which help them grip the ground surface, can leave a characteristic track in soft soil. Some snakes also swim very well. Most snakes lay eggs, but some give birth to live young. Of the venomous snakes in the United States — copperheads, coral snakes, water moccasins and rattlesnakes — only rattlesnakes are found in Colorado.

Who're You Calling a Toad?

There isn't a technical difference between frogs and toads, but frogs are commonly considered to have smooth skin, to require moister environments, and to leap rather than hop. Toads have warty skin and chunky bodies, move in short hops, and tolerate drier

Snakes can sting with their tongues. Snakes have a chemical-sensing organ in the roof of the mouth. They flick their tongues to gather molecules from the air and bring them to the sensory organ, essentially tasting or smelling the air. The flicking tongue has a light, feathery touch.

If you kiss a frog, it will turn into a prince. Due to a lack of willing field researchers, no verifiable data exists confirming this hypothesis.

may be declining.

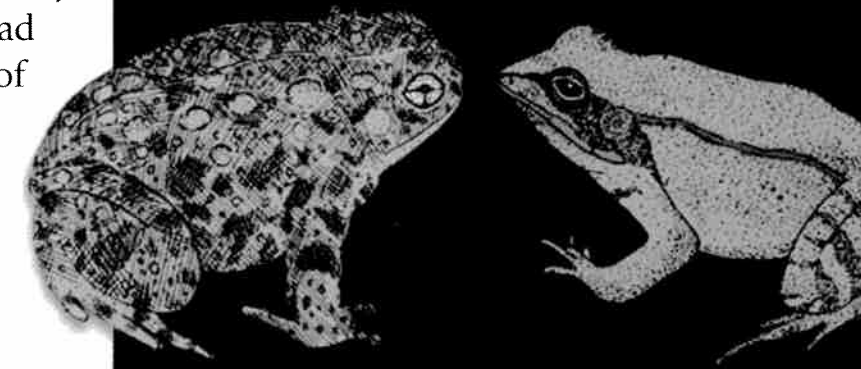
The only herp on the threatened or endangered list is the boreal toad. Classified as endangered in Colorado (but not nationally), this unique amphibian lives high in the mountains, inhabiting forest ponds between 8,000 and 12,000 feet. Boreal toad populations have declined dramatically over the past 20-25 years. Recent findings indicate a fungus may be the cause of the toad dieoffs. As of late 2000, all but one of the 30 known boreal toad breeding populations in the southern Rocky Mountains were in Colorado. The ability of these small populations to survive and sustain themselves over a long period is uncertain. CDOW is leading an interagency team that is working to recover the boreal toad. The toad is being bred at the Native Aquatic Species Restoration Facility in Alamosa.

Not all the news is bad. In the mid-1990s, intensive surveys for wood frogs, a threatened species, found the wood frog still present in all of its known historic range in northern Colorado. It was removed from the threatened list in 1998.

habitats. Boreal toads don't hop or leap. They crawl.

mountain toad

wood frog

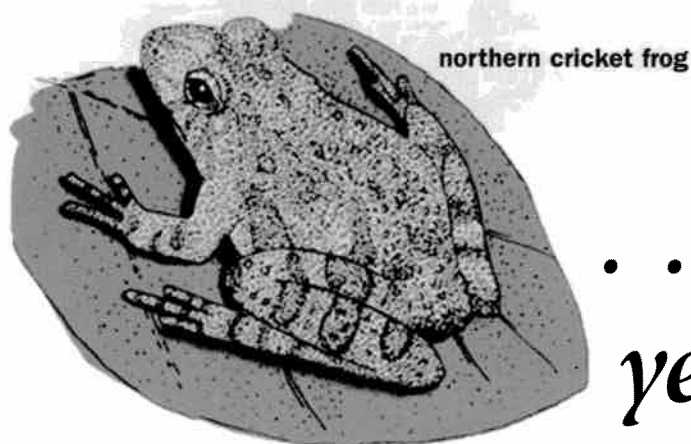


DON'T TAKE THEM HOME . . .

You're poking around in a western Colorado canyon when you come upon a brightly-colored collared lizard. It would make a great pet, right? Wrong. Collecting or possessing most native Colorado reptiles or amphibians without a special license is against the law. These creatures are an important component of the Colorado landscape and should be left in the wild. Plus, most herps taken from the wild soon die in captivity, because even the best-intentioned people often don't understand what they eat and how to care for them.

Exceptions to the no-possession, no-take rule:

1. 50 tiger salamander larvae as bait
2. Unlimited snapping turtles April 1–Oct. 31. Private landowners can kill "snappers" if they are damaging property. Snapping turtles can be collected as live animals.



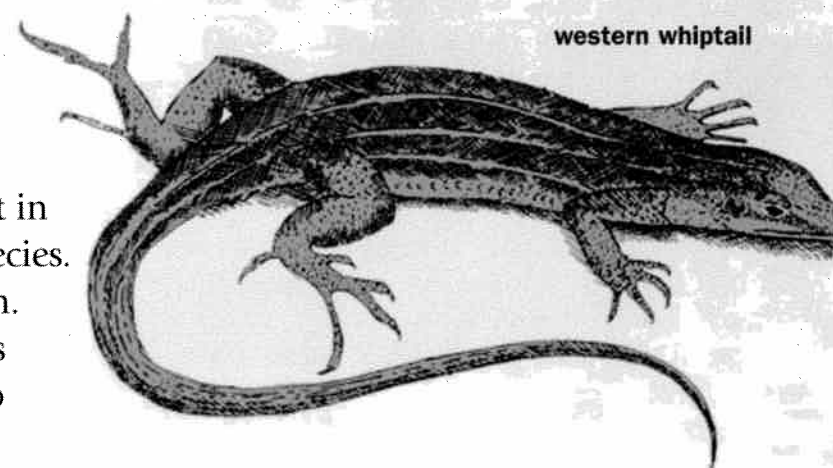
northern cricket frog

3. Up to three western rattlesnakes daily between June 15 and August 15. Rattlers can be killed on private property if they are a hazard. Rattlesnakes can't be possessed alive.
4. Unlimited bullfrogs year-round.
5. Up to four of each of the following species can be collected and kept as pets without a license, up to 12 total: *plains spadefoot toad*, *Woodhouse's toad*, *western chorus frog*, *painted turtle*, *western box turtle*, *sagebrush lizard*, *tree lizard*, *side-blotched lizard*, *prairie & plateau lizards*, *bullsnake*, *western terrestrial garter snake*, *plains garter snake*, *lesser earless lizard*, *western whiptail*, *racer* and *western hognose snake*.

The 16 species listed in item 5 are relatively abundant and promoting interest in them has a broad positive effect for the species. But don't just bring them home on a whim. They aren't toys and collecting them carries responsibility. Make sure you know how to care for them. Visit pet stores and consult

Web sites for resources on caring for reptiles and amphibians in captivity. Be prepared for a long-term commitment—turtles can live 150 years! If you return them to the wild, let them go as close as possible to where they were collected, and well before cold weather sets in. To avoid spreading disease, don't release animals that have been in contact with herps from other areas.

In general, these creatures do best left in the wild. They may seem like the ideal pet, but think twice before taking them home. They already are home.



western whiptail

. . . DON'T SET THEM FREE

Non-native herps released into the wild can be a real problem for the Colorado ecosystem. Exotic species may prey on native species, interbreed with them, compete for food and resources, and introduce disease. Bullfrogs, introduced into Colorado as game animals, prey upon native leopard frogs and have eliminated them from numerous locations. Even native species collected in another state should not be released in Colorado. Alternatives include giving them to a classroom, nature center or museum, returning them to the place they were purchased, and humane euthanasia. The Colorado Reptile Humane Society in Longmont, www.coloradoreptilerescue.org, accepts unwanted herps and offers them for adoption. They have a great deal of information on herp care and making responsible decisions on keeping herps as pets.

For more information on releasing herps in the wild, see the online brochure, *Don't Turn It Loose* at www.wildlife.state.co.us/Education/CoExisting_with_wildlife/DontTurnItLoose.asp.

. . . though the boys throw stones at frogs in sport, yet the frogs do not die in sport, but in earnest.—Plutarch

Herps are lower elevation creatures. Only a few species can be found above 6,000 feet in Colorado.

Colorado Wildlife Viewing Guide FOUNTAIN CREEK REGIONAL PARK— Site Number 14

Description: Three miles of cottonwood and willow riparian woodlands and wetlands along the floodplain of Fountain Creek. Adjacent meadows, marshes and ponds support five distinct biological communities. Surface water and lush adjacent wetland vegetation create a natural corridor for migrating wildlife.

Viewing Information: Active great blue heron nesting colony in the cottonwood trees adjacent to the creek has hosted 82 nests in past years. Excellent birding, especially for migrant songbirds utilizing the riparian habitat and waterbirds on the creek and ponds. The birdlist contains 257 species. **Good for reptiles including snapping, painted and western box turtles, pond sliders, six-lined racerunners, bullsnakes, garter snakes.**

Mammals include black-tailed prairie dogs, fox squirrels, beavers, muskrats, coyotes, red foxes, raccoons, striped skunks, bobcats, white-tailed deer. The nature center offers on-site interpreters, natural history information and public programs.

Ownership: El Paso County Parks, (Nature Center 719-520-6745)

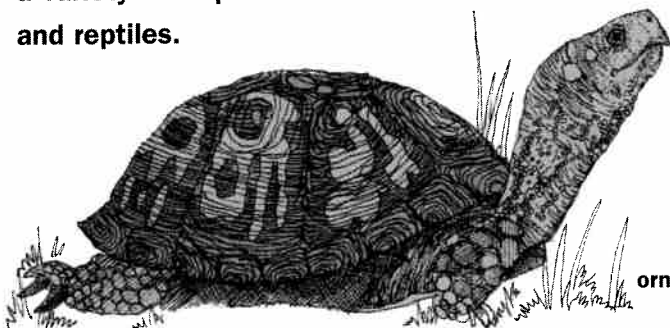
Size: 352 acres

Closest town: Fountain

Available: restaurants, lodging

LOOKIN' FOR HERPS...

Colorado's Eastern Plains and western canyons are good places to look for a variety of amphibians and reptiles.



ornate box turtle

Other good-for-herp sites found in the **Colorado Wildlife Viewing Guide: Picketwire Canyonlands**—site 24; **Colorado National Monument**—site 180.

The **Colorado Wildlife Viewing Guide** is available at many retail outlets or for \$12.95 plus \$2 shipping and handling from the Colorado Wildlife Heritage Foundation, 6060 Broadway, Denver, CO 80216. Call 303-291-7212 for information or online at www.ColoradoWildlifeFoundation.org.



The Division of Wildlife's mission is to manage the state's wildlife for all the people of Colorado. The Watchable Wildlife program promotes wildlife viewing recreation by creating wildlife viewing sites, offering information through books, brochures and interpretive signs, sponsoring the Wildlife Watch viewing-skills workshops, and publishing this compendium to wildlife appreciation.

Colorado's Wildlife Company and accompanying educator's guide are available online at

WWW.WILDLIFE.STATE.CO.US/COLO_WILD_CO/HOMEPG/CWCINDEX.HTM

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