Great Plains Reptile Monitoring Project

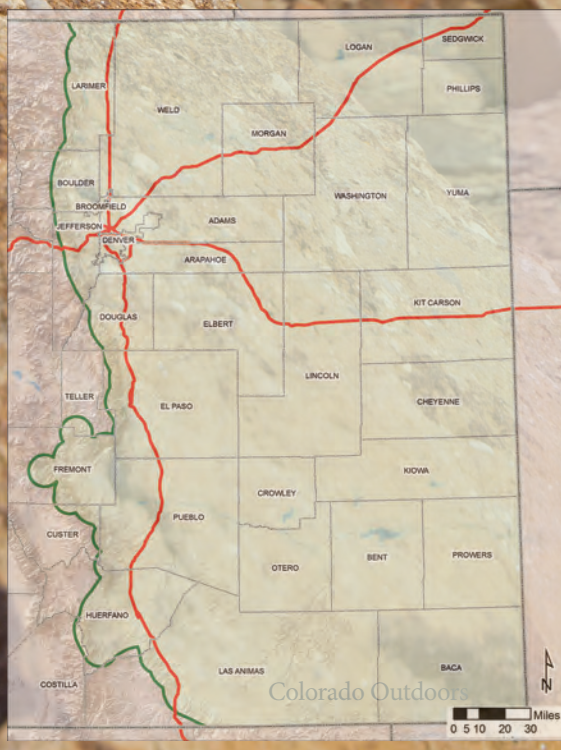
Request for Volunteers & Rangeland Access

Article & Photos By Danny Martin, Colorado State University

The Great Plains Reptile Monitoring Project is looking for dedicated volunteers and access to private lands for our upcoming field seasons. The project is developing a standardized, volunteer-based survey that will enable monitoring of terrestrial reptile populations.

Eastern collared lizard

Ornate box turtle



Why reptiles?

Reptiles are important components of many ecosystems, representing almost a third of global terrestrial vertebrate species. Reptiles serve as a food source for other wildlife including mammals, birds, other reptiles and arthropods. In turn, reptiles feed on wildlife such as arthropods and small mammals. This project will investigate how changes in habitat and climate influence distributions and abundance of reptiles in the Great Plains.

Habitat. The Great Plains are home to more than 80 terrestrial species of reptile, but loss and fragmentation of native grasslands have reduced the habitat available for these unique animals.

Climate. Reptiles are ectotherms, relying on their surrounding environment to maintain body temperature; even relatively small differences in temperature can impact their activity. Warming trends are expected to benefit many species of reptiles in Colorado.

Habitat + Climate. Researchers have suggested that most reptile species will be able to expand their distributions in a warmer climate — if there is good connectivity between patches of native habitat. This makes sense if you consider the abilities of wildlife to move across the landscape. Reptiles are not able to move as far as many birds and large mammals, but they also typically use a much smaller piece of habitat overall. Thus, reptile populations may persist in highly fragmented landscapes — but isolated populations are also more vulnerable to localized declines.

Why volunteer?

Surveying for reptiles is fun, and you will be helping to improve our understanding of how changes in climate and habitat influence reptile distributions!

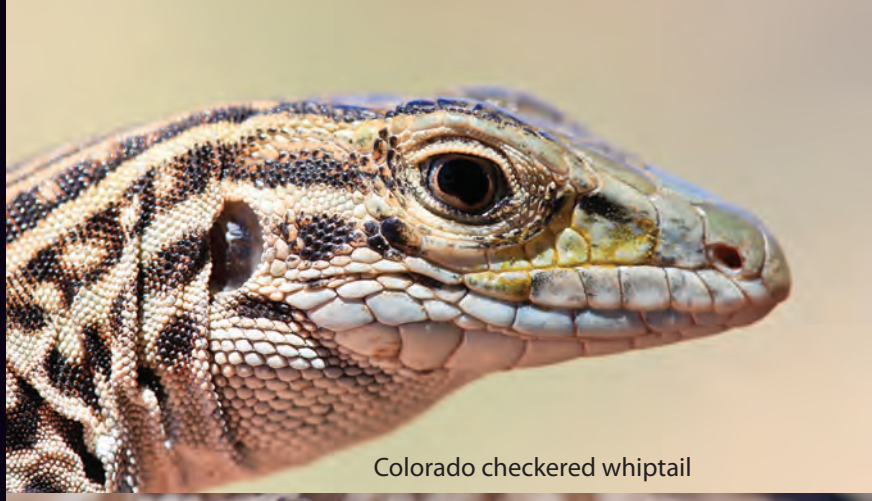
Volunteer requirements: No prior experience searching for reptiles is needed. Volunteers will be trained in the survey techniques and assigned survey areas in eastern Colorado. Volunteers must provide their own transportation to survey sites, a GPS capable of recording locations and a digital camera. Many 'smart' phones have GPS capability and the training will suggest free apps that will enable your smartphone to record the information needed for this project. Photographs that volunteers take of each reptile observed will be used by experts to confirm species identification. Volunteer observers will only report visual encounters —physical capture of observed reptiles will not be allowed. We request that volunteers be willing to spend at least three days (of their choosing) between April and September conducting surveys.

Do you have private rangeland we can access? Private ranches may better conserve reptile populations than do many public lands. If you own land with native habitat on the eastern plains of Colorado (or in other Great Plains states) and would allow our professional crews access, please contact us. We would conduct 2–5 surveys each year, between April 2014 and September 2015. Most surveys are completed in less than one day, but we revisit survey sites throughout the year since reptile activity can vary seasonally. Your name and contact information will not be made available to the public.

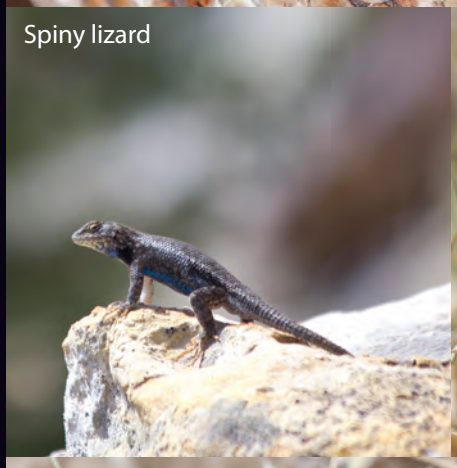
To sign up as a volunteer or provide access to your private land, please e-mail: danny.martin@colostate.edu.

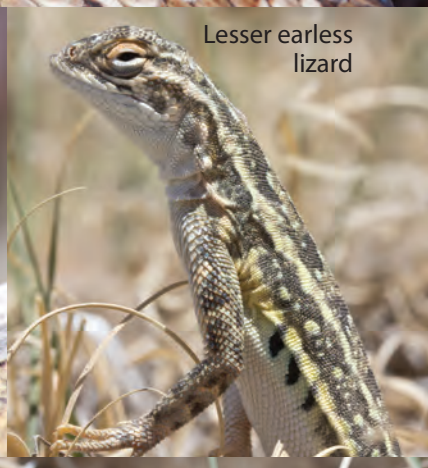
This project is funded by Colorado Parks and Wildlife, Texas Parks and Wildlife, Colorado State Land Board, Colorado State University and the U.S. Fish & Wildlife Service through a State Wildlife Grant. Additional support is provided by the U.S. Geological Survey.

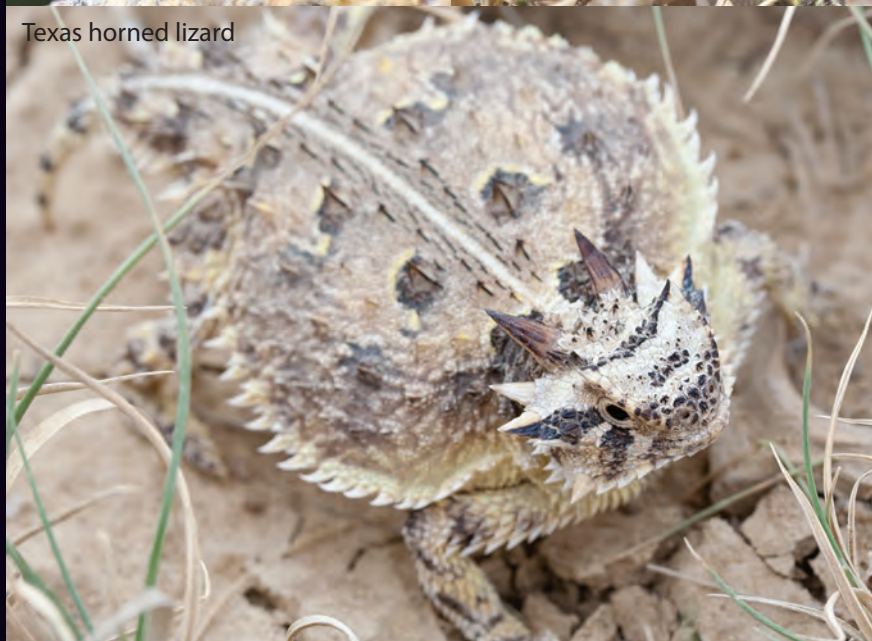
May/June 2014


Colorado checkered whiptail


Plains hog-nosed snake


Spiny lizard


Lesser earless lizard


Texas horned lizard