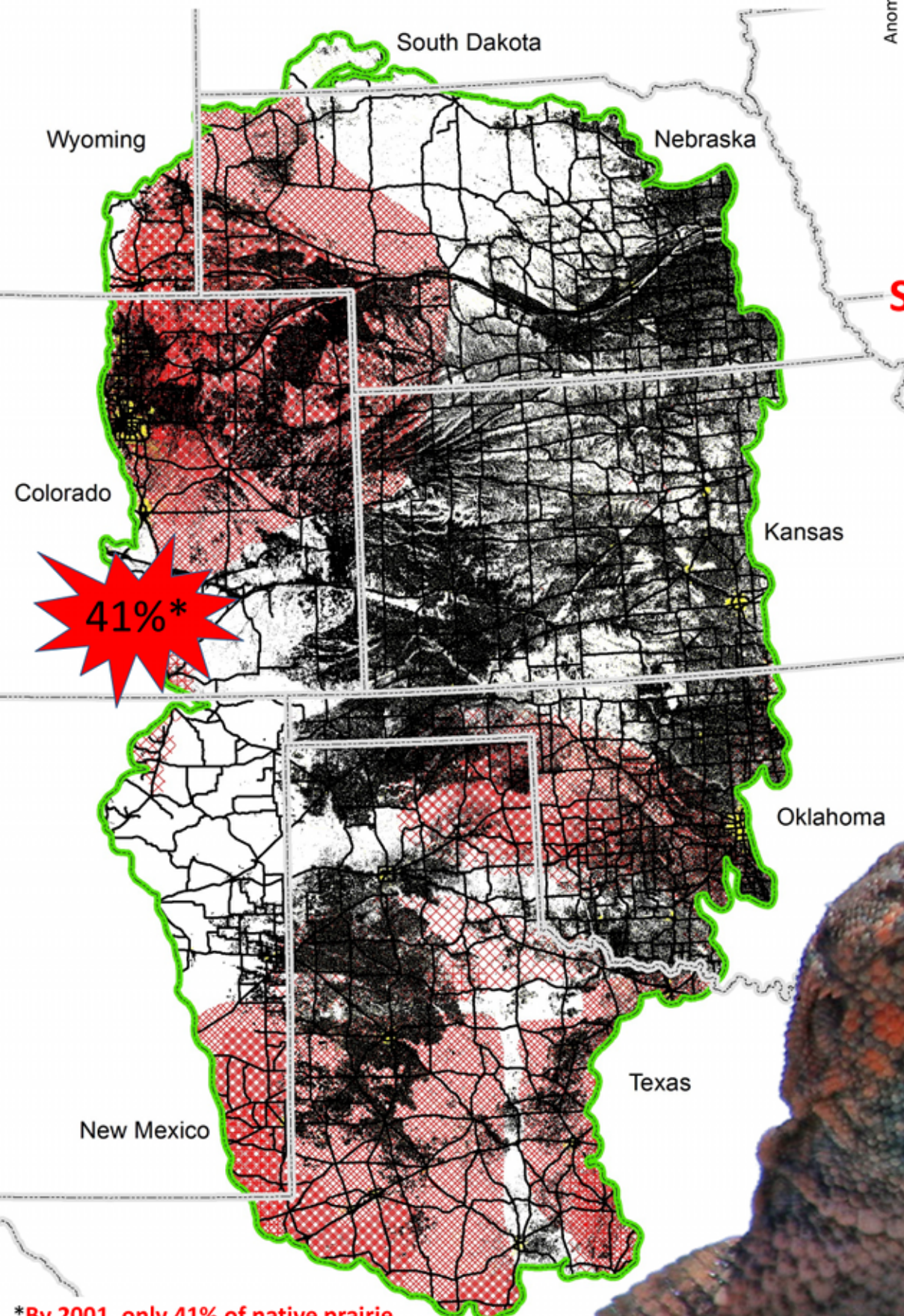


# Great Plains Reptile Conservation in a Changing Environment

## Habitat Loss & Fragmentation

In the Great Plains, native grasslands have been converted to crops and cities, & further fragmented by roads and energy extraction.

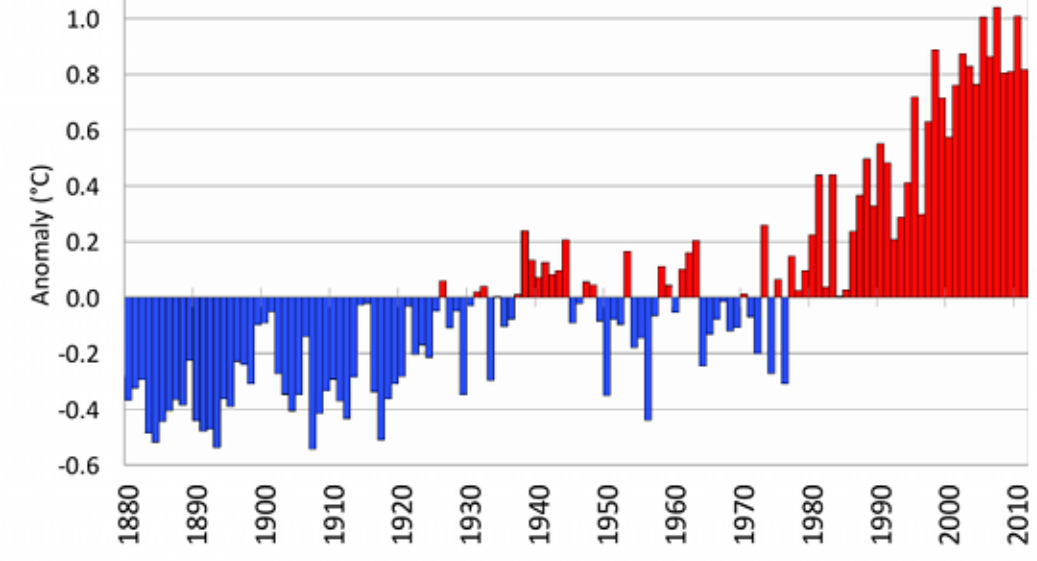
RED = Oil & Gas Basins  
BLACK = Agriculture & Major Roads



\*By 2001, only 41% of native prairie remained in Colorado (Seidl et al. 2001).

## Warming Climate

Mean global temperature anomaly

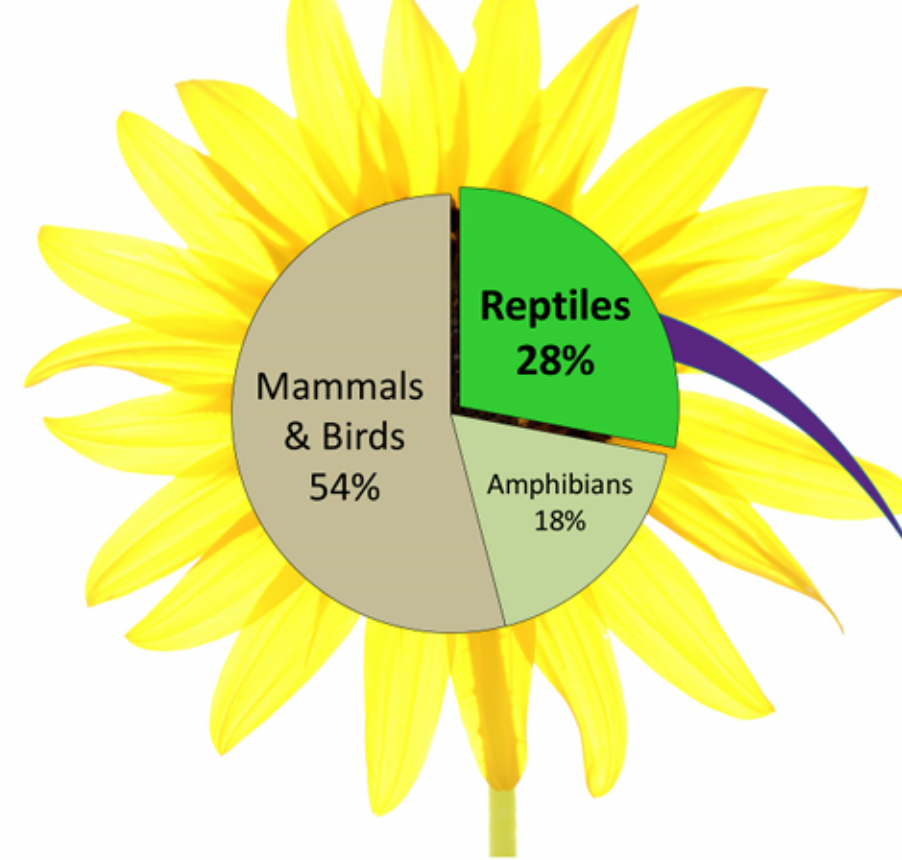


## Synergy...

"...most reptile and amphibian species could expand their ranges in a warmer climate if dispersal were unlimited, but if (not) then the ranges of nearly all species (>97%) would become smaller." IPCC (2007), referencing Araujo et al. (2006)



Love the sun... but such short legs!



(Global Terrestrial Vertebrate Species Richness)<sup>1</sup>

## The Future...

A volunteer-based program to monitor reptile populations using standardized, rapid-inventory survey methods.

This will enable a better understanding of how changes in habitat and climate may impact reptile populations

AND

provide information that could guide a more rapid response if actions are needed to ensure conservation.

YOU can make a difference!



Reptiles as Proportion of Worldwide Terrestrial Species<sup>1</sup>  
28%

Reptiles as Proportion of North American Terrestrial Species<sup>2</sup>  
18%

Representation of Reptiles in Major Wildlife Journals<sup>1</sup>  
2.5%

I.E., Reptiles are an important component of the ecosystem.

What do we know about reptiles relative to other terrestrial vertebrates?  
Not much.

How can we conserve species about which we know so little?

**Monitoring trends in populations is a start!**



1. Christoffell & Lepczyk. 2012. Representation of Herpetofauna in Wildlife Research Journals. The Journal of Wildlife Management 76:661-669.  
2. Collins & Taggart. 2009. Standard common and current scientific names for North American amphibians, turtles, reptiles and crocodylians. 6th ed. The Center for North American Herpetology, Lawrence, Kansas, USA.