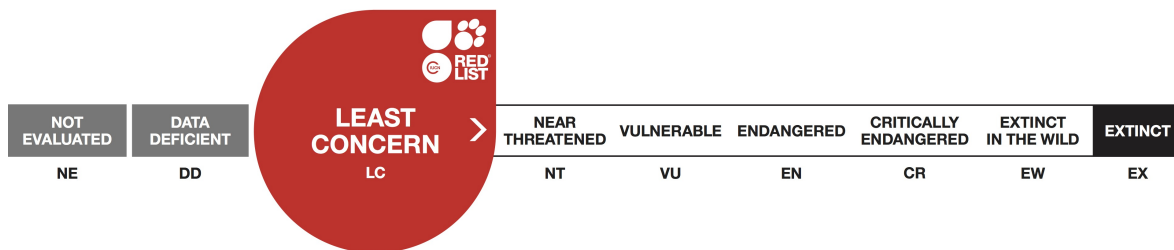




## *Phrynosoma cornutum*, Texas Horned Lizard

Assessment by: Hammerson, G.A.



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**Citation:** Hammerson, G.A. 2007. *Phrynosoma cornutum*. *The IUCN Red List of Threatened Species 2007*: e.T64072A12741535. <http://dx.doi.org/10.2305/IUCN.UK.2007.RLTS.T64072A12741535.en>

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## Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Reptilia	Squamata	Phrynosomatidae

**Taxon Name:** *Phrynosoma cornutum* (Harlan, 1825)

### Common Name(s):

- English: Texas Horned Lizard

## Assessment Information

**Red List Category & Criteria:** Least Concern [ver 3.1](#)

**Year Published:** 2007

**Date Assessed:** March 1, 2007

### Justification:

Listed as Least Concern because the extent of occurrence, area of occupancy, number of subpopulations, and population size remain relatively large, despite declines in some (mostly marginal) portions of the range.

## Geographic Range

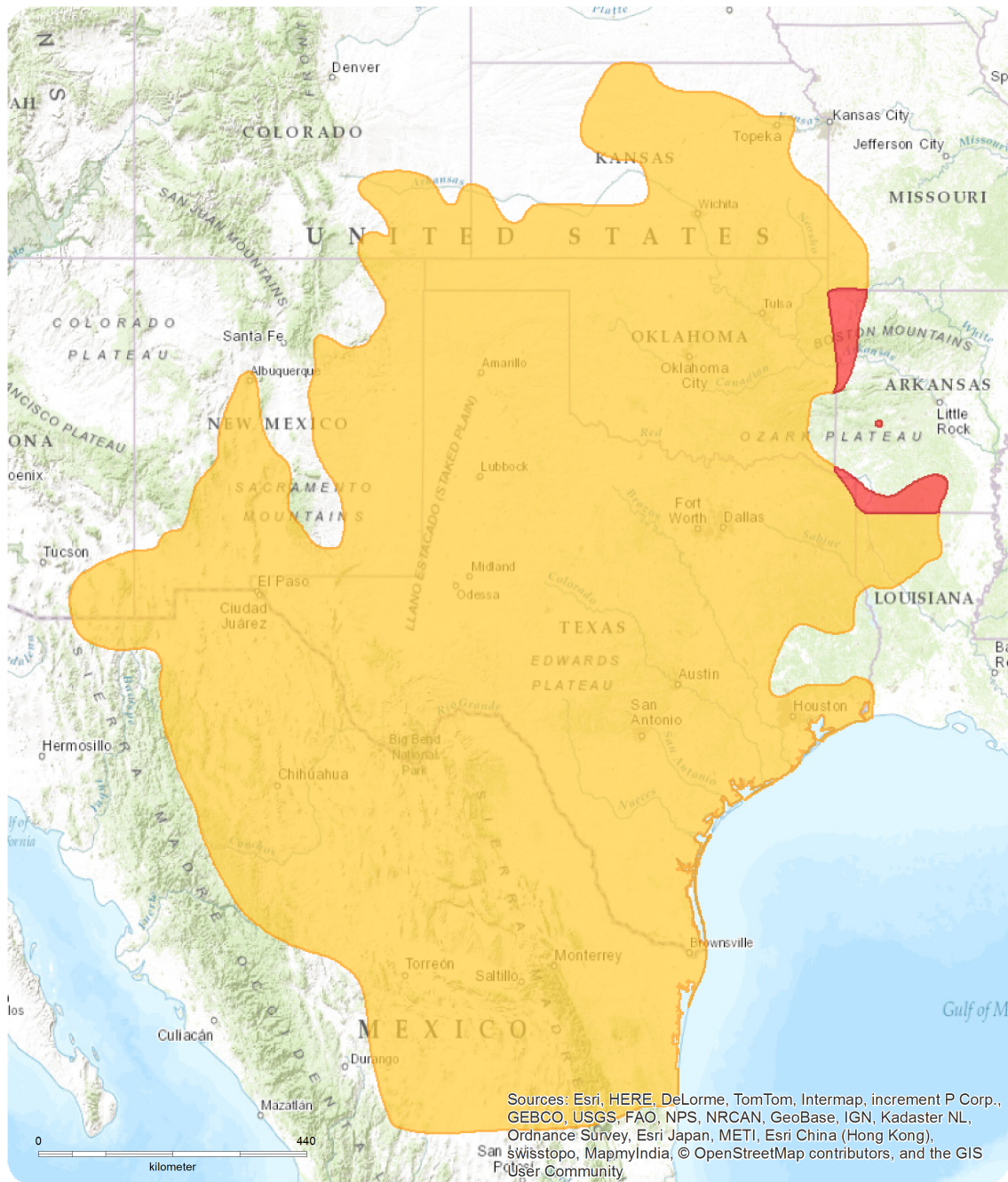
### Range Description:

The range extends from extreme southwestern Missouri and central Kansas to southeastern Colorado, and south and west throughout most of Oklahoma and Texas (including coastal barrier islands), eastern and southern New Mexico, and southeastern Arizona to northeastern Sonora, Chihuahua and Durango east of Sierra Madre Occidental, Coahuila, Nuevo Leon, Tamaulipas, San Luis Potosi, and Zacatecas (Price 1990). Native eastern limit is uncertain; records for Missouri and Arkansas have been questioned (now extirpated from Arkansas; Trauth *et al.* 2004), and possibly the species is not native to Louisiana (Price 1990). This species has been introduced and is established in several areas in the southeastern United States, including North Carolina), Florida (Jensen 1994), and elsewhere (see Price 1990 for references).

### Country Occurrence:

**Native:** Mexico; United States

# Distribution Map

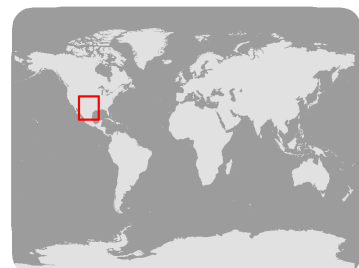


## *Phrynosoma cornutum*

### Range

- Extant (resident)
- Possibly Extinct

Compiled by:  
NatureServe and IUCN  
(International Union for  
Conservation of Nature)



The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.



## Population

This species is represented by hundreds of collection sites throughout the historical range in the United States and by well over 100 sites in Mexico (Price 1990). Many historically occupied sites still support populations (e.g., Hammerson 1999). Total adult population size is unknown but surely exceeds 10,000 and probably exceeds 100,000. This species can be locally abundant in undeveloped areas with appropriate habitat (Carpenter *et al.* 1993, Hammerson 1999). This species apparently has declined in area of occupancy and population size near the northeastern margins of the range in Texas, Oklahoma, and Kansas, but it is doing well in most the range. According to Price (1990), the Texas Horned Lizard has virtually disappeared from Texas east of a line from Fort Worth through Austin and San Antonio to Corpus Cristi (formerly widespread and abundant in that area); it has also declined in range and/or abundance in areas where it was formerly common in parts of north-central Texas, the Texas Panhandle, and parts of Oklahoma. Price's conclusions are supported by more recent surveys in Texas, Oklahoma, and Kansas. A 1992 Texas survey found the greatest declines in east Texas (where no individuals were found) and apparent declines also in central Texas; the species appeared to be doing well in northern and western Texas (Donaldson *et al.* 1994). Bartlett and Bartlett (1999) stated that the decline may have halted in at least some parts of Texas; they found numerous individuals in areas where searches in several previous years yielded few. A 1999 survey in Texas was unable to determine if the decline has halted or if it continues today (Henke 2003). A 1992 Oklahoma survey found the species to be rapidly disappearing in eastern areas of Oklahoma where it was once known to be abundant (Carpenter *et al.* 1993). A 1993 survey of the northern Flint Hills of Kansas suggested that populations were possibly declining (Busby and Parmalee 1996), and local collectors reported declines in the southeastern portions of Kansas (Bill Busby pers. comm. 1998). In Colorado no trend information is available, but recent surveys indicate that the species appears to be locally common and stable (Siemers pers. comm. 1998, Hammerson 1999). According to Rosen (*Herp Diversity Review* 1996), populations are thriving and plentiful in extreme southeastern Arizona. New Mexico densities have not changed historically, and populations are considered stable (C. Painter pers. comm. 1998). Status is unknown in Sonora, Mexico (A. Villareal Lizarraga pers. comm. 1998). It is considered to be a very common species in Mexico.

**Current Population Trend:** Stable

## Habitat and Ecology (see Appendix for additional information)

This lizard inhabits open arid and semi-arid regions with sparse vegetation (deserts, prairies, playa edges, bajadas, dunes, foothills) with grass, cactus, or scattered brush or scrubby trees (Degenhardt *et al.* 1996, Bartlett and Bartlett 1999, Hammerson 1999, Stebbins 2003). Soil may vary in texture from sandy to rocky. When inactive, individuals burrow into the soil, enter rodent burrows, or hide under rocks. Sheffield and Carter (1994) reported individuals that climbed one to two m up tree trunks when soils were wet after heavy rains. Eggs are laid in nests dug in soil or under rocks (Collins 1982).

**Systems:** Terrestrial

## Threats (see Appendix for additional information)

Within the US, declines may be related to the spread of fire ants, use of insecticides to control fire ants, heavy agricultural use of land and/or other habitat alterations, and overcollecting for the pet and curio trade (Price 1990, Carpenter *et al.* 1993, Donaldson *et al.* 1994). This species is extremely vulnerable to changes in habitat, especially the loss of harvester ants (Carpenter *et al.* 1993). Harvester ants comprise

up to 69% of the diet (Pianka and Parker 1975), and fire ants are thought to out-compete native harvester ants for food and space (Henke and Fair 1998). This threat may be significant in parts of Texas but probably not elsewhere. Intensive agriculture (plowing) could destroy adults and their eggs (Carpenter *et al.* 1993, Donaldson *et al.* 1994) but, according to Henke and Fair (1998), reports of declines due to loss of habitat caused by urbanization, suburban sprawl, and conversion of native rangeland to agricultural crops are mostly unsubstantiated (Henke and Fair 1998). The widespread use of broadcast insecticides is also thought to contribute to declines. Insecticides can be detrimental by directly causing illness or death or indirectly by severely reducing or eliminating harvester ants (Henke and Fair 1998). In the past, this lizard was collected for the pet trade, by boy scout troops for trading at jamborees, for the curio trade, and by tourists (Donaldson *et al.* 1994, Henke and Fair 1998). Mortality from road traffic is an important local threat in some areas. Males are particularly vulnerable during May-June in Arizona-New Mexico (Sherbrooke 2002). A high level of road mortality may lead to significant local declines.

There appear to be no threats to this species in Mexico.

## **Conservation Actions (see Appendix for additional information)**

Extant populations exist in a fairly large number of areas with adequate protection.

## **Credits**

**Assessor(s):** Hammerson, G.A.

**Reviewer(s):** Cox, N., Chanson, J.S. & Stuart, S.N. (Global Reptile Assessment Coordinating Team)

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## External Resources

For [Images and External Links to Additional Information](#), please see the Red List website.

# Appendix

## Habitats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Habitat	Season	Suitability	Major Importance?
4. Grassland -> 4.4. Grassland - Temperate	-	Suitable	-
8. Desert -> 8.1. Desert - Hot	-	Suitable	-
8. Desert -> 8.2. Desert - Temperate	-	Suitable	-

## Threats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Threat	Timing	Scope	Severity	Impact Score
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.3. Agro-industry farming	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
4. Transportation & service corridors -> 4.1. Roads & railroads	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
5. Biological resource use -> 5.1. Hunting & trapping terrestrial animals -> 5.1.1. Intentional use (species is the target)	Past, unlikely to return	-	-	-
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
8. Invasive & other problematic species & genes -> 8.1. Invasive non-native/alien species -> 8.1.2. Named species	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		
9. Pollution -> 9.3. Agricultural & forestry effluents -> 9.3.4. Type Unknown/Unrecorded	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		

## Conservation Actions in Place

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Conservation Actions in Place
In-Place Land/Water Protection and Management
Occur in at least one PA: Yes



## Conservation Actions Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

<b>Conservation Actions Needed</b>
1. Land/water protection -> 1.1. Site/area protection
2. Land/water management -> 2.1. Site/area management

## Research Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

<b>Research Needed</b>
1. Research -> 1.3. Life history & ecology
3. Monitoring -> 3.1. Population trends

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