

ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Animal Abstract

Element Code: ARAAD08020

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Terrapene ornata*

COMMON NAME: Ornate Box Turtle, Western Box Turtle

SYNONYMS:

FAMILY: Testudines: Emydidae

AUTHOR, PUBLICATION: Agassiz 1857:445 (see SSAR account)

TYPE LOCALITY: Restricted to "Burlington (Des Moines County), Iowa".

TAXONOMIC UNIQUENESS: Two subspecies of *T. ornata*; only *T. o. luteola* occurs in Arizona.

DESCRIPTION: Stebbins 1966:86. A relatively small terrestrial turtle with a carapace length of 4-5 in, but may reach up to 6 in. Females grow larger than males. The carapace is high-domed with radiating yellowish lines or rows of spots, on a brown or black background. Carapace color lightens and lines fade as with age. Skin is dark to reddish-brown with yellow to orange spots and yellow jaws. Some individuals may possess a greenish head. Males have bright red eyes and a slightly concave plastron; females have yellowish to reddish-brown eyes and a flat plastron. Plastrons have a single hinge near the front. Hind limbs may have 3-4 toes, males having an enlarged first toe to assist in copulation.

AIDS TO IDENTIFICATION:

ILLUSTRATIONS:

Black and white drawing (Stebbins 1966: plate 14)

Color photo (Behler and King 1979: plates 305, 307)

Color photo (Degenhardt, Painter, and Price 1996: plate 30)

Color photos (Brennan 2008: <http://www.reptilesfaz.com>)

Color photos (Tucson Herpetological Society 1996-2003:

<http://www.arts.arizona.edu/herp/TEOR.html>)

TOTAL RANGE: Great Plains from western Indiana to southeastern Wyoming, southeast to Louisiana, although discontinuous; southwest to southeastern Arizona and into north-central Mexico.

RANGE WITHIN ARIZONA: Southeast corner of the state, from Winkelman to the Huachuca Mountains. Recorded from Cochise, Graham, Pima, Santa Cruz, Greenlee and Gila counties.

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: A primarily diurnal species, box turtles are active in early morning hours then retreat from the heat to their burrows, or seek shelter until late afternoon when they re-emerge to forage. Often associated with the burrows of the Bannertail Kangaroo Rat (*Dipodomys spectabilis*) and with the Black Tail Prairie Dog (*Cynomys ludovicianus*) in New Mexico. Their active period may be lengthened during overcast or cloudy weather, and in the hottest parts of their range in Arizona, may be restricted to rainy periods. They can undergo a five month hibernation, often followed by a three month estivation, for an annual total of eight months in their subterranean refuge. Although a primarily terrestrial species, box turtles have been observed in ponds and small puddles and have an excellent ability to swim. They can live over 25 years.

REPRODUCTION: Maturity is reached at about 7-8 years of age, and mating usually takes place in the spring, upon emerging from hibernation, but turtles may mate at anytime during their active season. Turtles lay 2-8 (average 5) eggs per clutch, and may produce a second, smaller clutch of about 1-4 eggs. Females may retain eggs until the conditions are good for laying. Incubation lasts an average of 70 days and is dependent on the temperature. Sex is also temperature dependent, with males resulting from lower incubation temperatures and females resulting from higher incubation temperatures.

FOOD HABITS: Omnivorous with a preference for animals, and may favor mulberry. Box turtles will consume a large variety of foods including dead mammals, birds and eggs, other reptiles together with dead box turtles, tadpoles of the spadefoot toad, grass, cactus fruits and stems, melons, and insects such as beetles and caterpillars. Dung beetles, and others insects found when foraging beneath dung, have been an important food source since the time of the buffalo, and continue today from other livestock. They compete for food with other omnivorous species such as the mud turtle, but also raccoon, coati, ringtail, gray fox and skunks.

HABITAT: In Arizona, grassland of southeast corner of state. Occasionally in desertscrub.

ELEVATION: Found at elevations ranging from 2,000-7,100 ft. (610-2165m), although most abundant at elevations from 3,000-6,500 ft. (915-1980m).

PLANT COMMUNITY: Semidesert grasslands and Chihuahuan desertscrub.

POPULATION TRENDS: Believed to be declining (C.H. Lowe, pers. comm. 1980) in Arizona, but more information is needed. In 2009, the Turtles Project launched a citizen-scientist based Ornate Box Turtle Watch program to assist with data acquisition and eventually the development of a management plan (www.azgfd.gov/boxturtlewatch).

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None
STATE STATUS: 1 (AZGFD, AWCS 2022)
[1A (AGFD SWAP 2012)]
OTHER STATUS: Bureau of Land Management Sensitive –
full sp. (USDI, BLM AZ 2017, 2010)
PR, Determined Subject to Special
Protection in Mexico (Proyecto de
Norma Oficial Mexicana PROY-NOM-
059-ECOL-2018, 2000-10-16)
Pima County Priority Species (Sonoran
Desert Conservation Plan, 2013).

MANAGEMENT FACTORS: Threats may include illegal poaching for the pet industry, habitat loss due to urban development and roadways, mortalities associated with roadways, and alterations to plant community. Released pets may also pose a problem from disease transmission and/or genetic hybridization.

PROTECTIVE MEASURES TAKEN: Since 2005, AZGFD Commission Order #43 has closed the collection season for *T. ornata*.

SUGGESTED PROJECTS: Distribution, habitat, population and life history studies. A full assessment of threats.

LAND MANAGEMENT/OWNERSHIP:

SOURCES OF FURTHER INFORMATION**REFERENCES:**

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ADDITIONAL INFORMATION:

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