



# DESERT TORTOISE

Testudines  
Family: Testudinidae  
Genus: *Gopherus*  
Species: *agassizii*



**Range:** Mojave and Sonoran deserts of southwestern US and northwestern Mexico

**Habitat:** Desert regions, canyon bottoms, rocky hillsides

**Niche:** Terrestrial, diurnal, herbivorous

**Wild diet:** Herbs, grasses, flowers, fruits, and cacti.

**Zoo diet:**

**Life Span:** (Wild) high mortality rate among young but if survive to 20 will typically live 50 - 80 years  
(Captivity)

**Sexual dimorphism:** Males are generally larger than the females, have larger tails, a longer gular shield, which is often turned up and their plastron is concave compared to female tortoises.

**Location in SF Zoo:** Children's Zoo, Koret Animal Resource Center

---

## APPEARANCE & PHYSICAL ADAPTATIONS:

---

Desert Tortoises are high-domed and are dull brown to dull yellow in color. The head of a desert tortoise is scaly, and the body has thick skin. Desert tortoises have flattened front limbs with well-developed muscle and sharp claw-like scales adapted for burrowing. Back legs are skinnier and very long. The females use their hind limbs to dig their nests. They do not have webbed feet, rather their feet are round and stumpy for walking on land, and they are not able to swim. They have a good sense of smell and sight.

**Weight:** 25 – 50 lbs

**Length:** shell 6 – 14 in

**Height:** 4 – 6 in

Male tortoises have long, curved, gular horns that are used for leverage in male-male combat, heavier claws, and longer tails than females that facilitate copulation. Each male tortoise also has a depression in the plastron that fits around the carapace of a female, and an inward curve at the rear portion of the carapace that allows him to achieve the upright position needed for mating. Females have carapaces that curve outward and flat plastrons.

Much of the tortoise's water intake comes from moisture in the grasses and wildflowers they consume in the spring. Water that reaches the bladder is not lost to the system but can be drawn upon as needed. Adult tortoises can survive a year or more without access to water. To maximize the utilization of infrequent rainfall, tortoises dig catchment basins in the soil, remember where these are, and may be found waiting by them when rain appears imminent.

---

## STATUS & CONSERVATION

---

In recent years desert tortoises of the Mojave Desert have been federally listed as a threatened species. Desert tortoises are affected by habitat destruction and fragmentation, road mortality and the pet trade. This includes both the collection and release of former pets; many of which had caught respiratory illness in captivity and passed it on to the wild populations.

---

## COMMUNICATION AND OTHER BEHAVIOR

---

Desert tortoises make hisses, pops and poink sounds when threatened. Males grunt when mating. They also communicate with one another by vocalizing and posturing, and they may use feces and anal gland secretions to mark their burrows and home ranges. This species will dig burrows to cool themselves and in the winter will dig a deeper burrow to hibernate. They are a nomadic species.

---

## COURTSHIP AND YOUNG

---

Males will fight for breeding rights, which includes ramming, chasing and trying to flip opponents. Breeding takes place from spring to fall and females can store sperm in their reproductive tracts for up to 18 months, generally laying eggs after winter hibernation. An average clutch is 3 to 5 hard-shelled eggs, laid in a nest scooped from the desert sand. Incubation lasts between 90 to 135 days and temperature plays a role both in the length of incubation and the sex of the hatchlings. The shell of a newly hatched tortoise is extremely soft and remains soft during the first five years of life.

To make her nest, each female digs a hole with her hind legs in the spot she has chosen, urinating throughout the process; perhaps to ward off predators or provide the eggs with moisture. After deposing her eggs in the hole, each female covers the eggs with soil and urinates again. Females may guard their eggs from predators for some time. Before long, they wander off and leave their young to fend for themselves. The yolk sustains the young, not only while the eggs incubate, but also it provides the hatchlings with enough energy for six months; enough to sustain them in case they are not able to feed before hibernating.

Incubation: 90 – 135 days	Length at birth:
# of eggs: 3 – 5	Sexual Maturity: 15 – 20 years

---

## MISCELLANEOUS

---

The desert tortoise is the official reptile of the state of California.

The tortoise is able to live where ground temperature may exceed 140 degrees Fahrenheit (60 degrees Celsius) because of its ability to dig underground burrows and escape the heat. At least 95% of its life is spent in burrows. There, it is also protected from freezing winter weather while dormant, from November through February or March.

Tortoises and turtles both belong to the same order, which evolved over 200 million years ago while dinosaurs walked the earth. Turtles are aquatic or semi-aquatic with streamlined shells and are mostly omnivorous. Tortoises live on land and have domed shells, which they can retreat inside and are herbivorous.

### **Sources:**

Nature Trail Handbook

<http://animaldiversity.ummz.umich.edu/>

<http://www.biopark.org/>

Conservation Biology of Tortoises © 1989 Kristin H. Berry, pgs 5-7

Created: 8/2011