



Living with Desert Tortoises

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Believe it or not, if you had stopped at a service station on the old Route 66 back in the fifties, you would have been offered more than a tank of gas. You probably would have been offered a free desert tortoise with your fill up – whether you knew how to take care of it or not. Fortunately, our conservation efforts have improved significantly since that time, and we now have a much higher regard for these unique creatures who are one of the southwest's most enduring natural species.

If you live in an area with large, unfenced lots, or in a more rural area of the state, there's a good chance you will at some point discover a Sonoran Desert Tortoise. The average adult measures 10-15" long and weighs between 8-12 lbs. They are found most commonly in gravelly desert washes and semi-arid grasslands as well as on rocky hillsides and in canyons. Since they are reptiles and must use their environment to control their body temperature, they spend up to 90% of their lives underground and only emerge from their burrows to eat or drink. In addition, during the winter months – typically October through April – they hibernate and therefore don't appear at all.

When you encounter these animals, there are two things you need to know: first it is illegal to touch, relocate or otherwise disturb them in any way.¹ Second, they are extremely territorial and usually spend their entire lives within a one to two-mile radius of where they were born. That means they will probably return to the area you found them again and again. In fact, you'll be able to enjoy their presence for a very long time, since their average life span is 80-100 years.

Desert tortoises are masters at adapting to their environment. Since water is scarce in the desert, they can store up to 60% of their body weight in water and can go up to a year without drinking. They get most of their water from their diet of herbs, grasses and wildflowers.

While these desert creatures aren't exactly built for speed, they are built for survival. You will notice their front legs are slightly flattened compared their back legs which are round and stumpy. These front legs, commonly described as elephantine-shaped, are designed for digging. Desert tortoises control their body temperature by creating underground burrows that can be barely larger than their body width or as long as several feet. These burrows protect the tortoise from the heat of the summer as well as the cold of the winter. They are usually found on a hillside or on raised plateaus so that rain water runs away and they can stay dry. A single tortoise can have multiple burrows spread out over his primary territory which are used for multiple purposes. In addition, these burrows are often used by other tortoises or other small animals as their temporary shelter. It's also not unusual for rattlesnakes to make these burrows their home.

Very often, when people come across a desert tortoise, the first thing they try to do is determine its age. However, there is no accurate way to tell the age of a desert tortoise once it reaches adulthood. Its size and number of sections on its shell (called scoots) are not good indicators. The number of

scoots is the same for the animals' entire life. In addition, as with any other animal, genetic and environmental factors come into play when determining size. So it's extremely difficult to tell if that desert tortoise you just "met" is 16 or 66.

It's also not as easy as you might think to determine its sex. In fact, it's virtually impossible until the tortoise fully matures at 10-15 years. The male is characterized by a concave bottom shell (called the plastron), and the female's is completely flat.

Desert tortoises are solitary animals. They may share a burrow to hibernate, but rarely will you find multiple animals within the same area. The only time they may appear in multiples is to mate. This can occur any time, but more typically in late summer or early fall. The female will then lay her eggs in a shallow burrow. She can lay as many as three to four clutches of 4-6 eggs each in a single season. As soon as they are hatched, the babies are on their own. Unfortunately, their chance of survival to sexual maturity is less than 2%. The reason for this low survival rate is that a newborn Sonoran Desert tortoise is about the size of a quarter, so it is prey to any number of desert predators looking for a quick snack. Natural predators include coyotes, foxes, and Gila Monsters.

According to the Arizona Game and Fish Department "Primary threats to survival of the desert tortoise are related to loss and degradation of the species' habitat, through drought, wildfire, habitat destruction and fragmentation, and invasion of exotic plant and wildlife species. Other impacts to the species include removal of individuals from the wild, vandalism, mortality from vehicles, irresponsible off-highway vehicle (OHV) use, release of captive tortoises into the wild, and disease."² The Arizona Game and Fish Department has designated the Sonoran Desert tortoise as a protected species. Enough concern exists over their status that there is currently a U.S. Fish and Wildlife Service review to assess if there is a decline in numbers and if so, does it warrant federal protection under the Endangered Species program.

However, if you really want to have a desert tortoise for a pet, there is a system in place for you to adopt one of these animals without taking a wild animal out of its natural environment. In fact, adoption is the only legal option. Before you do this however, you must be sure you are willing commit to the tortoise's care, and that the animal will fit into your lifestyle.

One key requirement for adoption is proof, through photos, that you have created a proper enclosure that offers:

- At least a 500 sq. ft. area with both sunny and shady areas.
- Solid perimeter fencing at least 18" high. Block or wood. Fencing that the tortoise can see through is not acceptable.
- An insulated above ground burrow in Phoenix and Tucson or a below ground burrow in the Kingman and Yuma areas.
- No access to a pool or pond.

- Natural food sources such as Bermuda grass and native plants and scrubs
- A shallow water dish.
- No use of chemical treatments, including pesticides in or near the enclosure.
- Separation from dogs as well as other tortoises.

As an adoptive parent, you are also obligated to agree in writing to the following conditions:

- You cannot have more than one tortoise per family.
- You are 100% responsible for any medical bills that may arise.
- The tortoise cannot be given away, taken out of state or relocated to an inhospitable climate (i.e. Flagstaff)
- You must report the death of your animal to the agency you adopted it from
- You must return the animal to the agency you acquired it from if you can no longer care for it for any reason.

All of these requirements have been put into place for one reason only – the protection of the species. Thousands of desert tortoises were taken into captivity before restrictions went into effect in 1989. Removal of these animals from the wild became problematic when many of these animals over bred and their offspring were left homeless when their caregivers could no longer care for them.

¹AGF Commission Order 43:R12-4-407.1

²http://www.azgfd.gov/w_c/deserttortoisemanagement.shtml#conservation

The reason that tortoises are available for adoption is that captive tortoises can never be released into the wild. They often transmit diseases to other tortoises which often decimate a previously healthy group of wild animals. In addition, wild tortoises spend their entire lives in a genetically predetermined area, learning where to eat, drink and hide. A captive tortoise has none of these skills, so when it is turned loose in the desert, it very often it dies a slow painful death. The desert tortoise program exists to match homeless tortoises with responsible caregivers throughout their native range here in Arizona.

In conclusion, if you are lucky enough to have a wild desert tortoise on or near your property, enjoy his company and learn all you can about his natural habitat from a distance. If you would like to adopt one of these animals to call your own, please contact the local adoption agency nearest you:

Kingman – Arizona Game and Fish department. www.azgfd.gov/tortoise, 928-692-7700

Phoenix – Phoenix Herpetological Society. www.Phoenixherp.com 602-550-1090

Tucson – Arizona-Sonora Desert Museum. www.org/programs

Yuma – Arizona Game and Fish Department. www.azgfd.gov/tortoise 928-342-0091

Adopting a desert tortoise can give you and your family an excellent opportunity to learn more about these amazing desert creatures. Enjoy.

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