

Desert Ambassadors

by

Bob Garrison

for

The California Desert Managers Group

No other animal better represents the southwest deserts than the tortoise. Its rugged good looks, phenomenal ability to endure drought and heat, and its mild disposition make it the perfect desert ambassador. The desert tortoise ranges from southwestern Utah, southern Nevada and southeastern California in the Mojave Desert south through the Sonoran Desert in Arizona and Sonora, Mexico.

The desert tortoise is a well recognized but seldom seen animal. Like all reptiles, the tortoise is "cold blooded" meaning its body temperature fluctuates based on the surrounding air and ground temperature. For the tortoise, the ideal body temperature ranges between 80 and 90 degrees. Its lifestyle is dictated by the need to find this internal temperature range. Tortoises dig their own burrow or use other tortoises' burrows to escape extreme temperature ranges found on the desert's surface. In the winter, the tortoises retreat to burrows where they go into a winter slumber called brumation, the reptile equivalent to hibernation in mammals. In the summer, ground temperatures can reach well over 100 degrees during the day so the tortoises emerge from their burrows in the early morning and late evening to feed. When summer food and water disappear, they enter into a summer hibernation called aestivation.

Water is a precious commodity at any time of the year in tortoise country. To survive months of drought, tortoises are quick to fill up from puddles left behind after infrequent storms. They also secure water from the green plants they eat. Adult tortoises can store about one cup of water in their bladder and have the ability to live off of this "reservoir" for many months. When threatened by a predator, tortoises may void their bladders. Whether this stream of urine is actually meant to dissuade an attack is unknown. If so, it may be a last ditch effort, because it leaves the tortoise without a reserve of water and makes them vulnerable to extended drought conditions. Human disturbance also often results in this detrimental occurrence. If you see a tortoise in the wild, view it from a distance and never pick it up. Your actions may mean the difference between life and death.

Thankfully, adult tortoises have more effective ways of discouraging natural predators. Its boney shell or carapace offers immediate shelter from attack as the tortoise withdraws his head and tail and covers the front and back openings in the carapace with its tough, scaly legs. While this discourages all but the most persistent attacker, the tortoise's best line of defense is its ability to remain undetected as it blends into its rocky habitat or when possible, retreats into its burrow. Young tortoises are much more vulnerable to predators since their shells remain soft during their first five years of life.

In some desert areas with the most extreme temperatures, tortoises remain in their burrows up to seven months of the year! It is no wonder that one of the biggest questions about desert tortoises is "Where can I see one?" While desert tortoise populations can top 200 per square mile in some parts of their range, you

would never guess it most of the time. The trick is looking when ground temperatures are between 80 and 90 degrees and there is a plentiful food supply. In the Mojave Desert, tortoises generally feed in early spring when annual wildflowers are blooming. In the Sonoran Desert, greater activity takes place during the summer rainy season.

Tortoise viewing takes patience and endurance, some of the same traits recognized in the tortoise itself. Besides looking at the right time of year, you must also look in right locations. In the Mojave Desert, the best habitats are open flatlands and along the edges of washes. In the Sonoran Desert, look for gravelly uplands and along the edges of boulder-filled canyon mouths. What may appear to be ideal habitats and weather conditions to you may not suit the finicky reptiles hiding in their burrows. Or it may mean there are no tortoises in the area. Tortoises have a home territory ranging from one to 100 acres depending on the available food supply or availability of burrows. Animals with larger territories require multiple burrows so the presence of a burrow doesn't mean somebody's home. In the end, it comes down to luck and perseverance -- but it's worth the effort when you see your first desert ambassador. For more information go to: www.DesertTortoise.gov

Human actions ranging from collecting to off road vehicle use led to severe declines in tortoise populations throughout their range, resulting in their listing as a federally listed threatened species in 1990. Populations are still declining so it is up to us to step up and protect this desert icon. The desert tortoises that share the Mojave and Sonoran Deserts with us deserve our help. Here are a few things you personally can do to help desert tortoises:

Mojave Max's Top Ten List of Things You Can do to Help Desert Tortoises [sidebar]

1. Drive only on designated roads and trails.
2. Don't litter.
3. Place your garbage in hard-sided, covered containers to discourage ravens and coyotes – key predators of young tortoises.
4. Drive slowly in areas where wildlife and pets are present – minimize road kills that support raven and coyote populations.
5. Watch wild tortoises from a distance. Never touch, pick up or disturb a wild desert tortoise.
6. If you see wild tortoises for sale, contact a game warden immediately.
7. If you have a pet tortoise that was collected years ago, do not release it back to the wild.
8. Plant native plants in your garden and weed out non-native invasive plants.
9. Be careful with fire.