



LEOPARD TORTOISE

Testudines
Family: Testudinidae
Genus: *Stigmochelys*
Species: *pardalis*



Range: Central to South Africa

Habitat: semi-arid, thorny scrub to savannas

Niche: Terrestrial, crepuscular, herbivorous

Wild diet: grasses and vegetation. They also eat old bones for calcium.

Zoo diet:

Life Span: (Wild) 50 - 100 years
(Captivity)

Sexual dimorphism: Males have a longer and thicker tail and plastron may be slightly concave and display a "V" shaped notch for the tail opening while females typically will have a "U" shaped notch.

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

APPEARANCE & PHYSICAL ADAPTATIONS:

The leopard tortoise has a high and domed carapace that is tawny, yellow or buff, with brown centers to each pyramid shaped scute with black radiations and spots. The shell pattern acts like camouflage in their habitat. Each individual is marked uniquely. Their strong legs and round, stumpy feet made for walking on land. Their front limbs are flattened with well-developed muscle and sharp claw-like scales adapted for burrowing.

Weight: 45 lbs

Length: 15 - 18 in

Like other turtles and tortoises, they have no ears but can sense vibrations that help them navigate their environment. They have a keen sense of smell that probably helps them locate food. They have no teeth (no turtle or tortoise does), but they bite and rip at food with their hard, sharp, beak-like mouths. Leopard tortoises also eat the fruit and pads of prickly pear cactus and other succulents that provide them with water. They store water in large anal sacs that take up most of the space in their abdominal cavities. This is an important physical adaptation to their arid environment.

STATUS & CONSERVATION

The leopard tortoise is the most widespread tortoise in sub-Saharan Africa and healthy populations still exist in rural areas, national parks and nature reserves. They are under increasing pressure from habitat loss, the pet trade, and they are hunted and consumed locally for food. In areas of significant human populations, the leopard tortoise is considered vulnerable. They are listed on CITES Appendix II.

COMMUNICATION AND OTHER BEHAVIOR

They are more defensive than offensive, retracting feet and head into their shell for protection. This often results in a hissing sound, probably due to the squeezing of air from the lungs as the limbs and head are retracted. Another defensive weapon that these tortoises use to deter predators is to empty its bowels and much of its stored water on their predators.

Leopard tortoises seek shelter during the hottest part of the day and go to sleep early to avoid the cold. During hot and rain-free summers, aestivation or semi-aestivation occurs. Lack of food and water are major factors, as is temperature that lead to aestivation. During aestivation, tortoises maintain themselves below ground, in burrows, which provide a stable microclimate.

COURTSHIP AND YOUNG

Leopard tortoises "court" the female by ramming her. When mating, the male makes grunting vocalizations. After mating, the female excavates a nest, lays a clutch consisting of between 5 and 18 eggs, covers them up and then leaves. When the eggs are being laid, tortoises may moisten hard ground by voiding water. Leopard tortoises have the longest egg incubation period of 460 days, or more than a year.

When ready to hatch, each hatchling has a small egg tooth that it uses to break out of its shell. Leopard tortoise hatchlings are brightly patterned at birth, and entirely on their own. They immediately start to feed on a variety of plants, but seem to prefer succulents, possibly because of the higher water content.

Incubation: 460 days	Length at birth:
# of eggs: 5 – 18	Sexual Maturity: 12 – 15 years

MISCELLANEOUS

The leopard tortoise is the second largest tortoise native to Africa. Only the African spurred tortoise is larger.

Leopard tortoises are indeed adapted to a semi-arid environment and its system of eliminating waste via uric acid. Uric acid can be eliminated using substantial lower levels of water wastage than can systems based on urea, such as those of mammals. Therefore, tortoises, such as Leopards, eliminate nitrogenous waste products with far greater water conservation.

Sources:

<http://nationalzoo.si.edu/>

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

http://africantortoise.com/leopard_tortoise.htm

Conservation Biology of Tortoises © 1989 Donald B. Broadley, pgs 43-46

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