



RADIATED TORTOISE

Testudines
Family: Testudinidae
Genus: Astrochelys
Species: radiata



Range: Southern Madagascar

Habitat: dry regions of brush, thorn forests, and woodlands

Niche: Terrestrial, diurnal, herbivorous

Wild diet: grasses, fruit and succulent plants

Zoo diet:

Life Span: (Wild) 40 – 50 years

(Captive) up to 100 years

Sexual dimorphism: Male has longer tail and more protruding scutes, the notch in the plastron beneath the tail is more noticeable.

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

APPEARANCE & PHYSICAL ADAPTATIONS:

The radiated tortoise has a high-domed carapace with yellow lines running down from the center of the dark plate of the shell. This pattern appears to radiate from the shell, hence the name, radiated tortoise. The radiating lines extend down the scutes, the shell's plates. Its legs and feet are yellow as is its head, except for a black patch on top. This tortoise has a blunt head, and elephantine feet. Juveniles are black and off-white when they hatch, but quickly develop the adult's striking coloration. 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: 35 lbs

Length: 16 in

The shell is supplied with blood vessels and nerves so like other tortoises it can feel when being touched.

STATUS & CONSERVATION

The radiated tortoise is listed in Appendix I of CITES. These tortoises are critically endangered due to loss of habitat, being poached for food, and being over exploited in the pet trade.

Some Chinese will pay the equivalent of \$50 for a radiated tortoise to eat (they are also believed to have aphrodisiac properties). Despite laws completely protecting the species, traffic in tortoises from the south coast of Madagascar to the capital continues.

COMMUNICATION AND OTHER BEHAVIOR

The radiated tortoise hisses and grunts as a way of communicating. They retract their feet and head into their shell for protection for protection against predators. When caught, it will let out a high-pitched cry that can last up to an hour after capture. This loud noise would startle a predator and it would potentially give up.

The radiated tortoise will graze in the same area for an extended period of time, keeping the vegetation in that area trim. This tortoise prefers new growth rather than mature plants due to the high protein and low fiber content of the vegetation.

COURTSHIP AND YOUNG

Males reach breeding capabilities once the carapace length reaches 12 inches. Females need to be a few inches longer. The male begins courting by bobbing his head and smelling the female's hind legs and cloaca. In some cases the male may lift the female up with the front edge of his shell to keep her from moving away. Females lay three to 12 eggs in a pre-excavated hole six to eight inches deep and then depart. Incubation is quite long in this species, lasting usually between five and eight months. The length of incubation appears to be temperature dependent. Juveniles attain the high-domed carapace soon after hatching.

Incubation: 145 – 231 days	Length at birth: 1.3 – 1.6 in
# of eggs: 3 - 12	Sexual Maturity:

MISCELLANEOUS

The oldest radiated tortoise ever recorded was an estimated age of 188.

Radiated tortoises are the largest of the starred tortoises. (A group of seven species having a “star” or “radiating” pattern on their carapace.)

Sources:

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

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

<http://lazoo.org/>

Conservation Biology of Tortoises © 1989 Lee Durrell, Brian Groombridge, Simon Tonge and Quentin Bloxam, pgs 96-98

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