

Spotted Turtle

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By Dick Bartlett

The beautiful spotted turtle (*Clemmys guttata*) is coveted by hobbyists around the world. Indigenous to northeastern North America, it is found from southern Quebec and northern Michigan to central Florida and southwestern Georgia. The spotted turtle is protected in many of the states in which it is found and is a candidate for protection in others.

Captive-bred spotted turtles are available. They are preferable to wild caughts because they acclimate better to captive conditions and take pressure off wild populations. If you decide to collect a spotted turtle from the wild, be certain to check the legalities involved first.

Natural History

The spotted turtle is a strange little creature. Fully active at times when temperatures are quite cool (spring and autumn), it may become inactive during the hottest days of summer when other turtle species are at the acme of their activity period. During cool weather, the spotted turtle basks often and for extended periods. The black carapace provides for effective thermoregulation in cool but sunny weather. In colder areas, this turtle hibernates (brumates) during the winter, and it may also aestivate during the hottest part of the summer, especially in the South.

At any age, a spotted turtle's carapace is black in color. Hatchlings usually bear a single well-defined yellow spot on each carapacial shield, including the marginals. More spots develop with age, and some adults are actually profusely spotted. However, occasional examples lack all traces of carapacial spots. The top of the head and the neck are also spotted. The underside of the marginal scutes is orange, and the plastron is orange with a well-defined and sometimes extensive smudge of black on each scute. There is no plastral hinge.

Adult males have a concave plastron and a long, heavy tail. The plastron of the female is flat, and her tail is short and thin. Females have a yellow chin and orange eyes. Males have an orange chin and brown eyes. The anterior scales on the forelimbs are often orange-edged, and the underside of the limbs and neck are orange. Adult turtles have a carapace length of 4 inches, and these are not known to exceed 5 inches in length.

Until recently, the bog, the wood and the Pacific pond turtles were, along with the spotted turtle, classified in the genus *Clemmys* and collectively referred to as American pond turtles. Currently, the other three species have been reclassified into different genera, leaving the spotted turtle the sole representative of the venerable genus *Clemmys*.

Spotted turtles are creatures of woodland ponds, swamps and marshes. They were once abundant in suitable habitat throughout much of their range. Although the species remains common in some areas, it has become uncommon or even extirpated in others. Many factors seem to figure into their population reductions. They include habitat destruction, increased predator populations (especially raccoons) and (in some populations) unsustainable collecting for the pet trade.

Despite the fact that spotted turtles are essentially aquatic, they are not particularly powerful swimmers. This is especially true of hatchlings and younger juveniles. Both of these size classes are usually associated with vegetated shallows, or if in deeper water, amidst the edges of grass hummocks or other emergent vegetation, where they can easily rest, hide and reach the water's surface without paddling furiously.

Indoor Captive Care

Although wild-collected spotted turtles can be problematic captives, captive-bred and captive-hatched examples are hardy and easily kept. Their small adult size and polka-dotted patterns make these turtles favorites of many hobbyists. Because they can develop carapacial erosion problems and are not the strongest swimmers in "turtledom," their water should always be kept fresh, clean and relatively shallow.

A hatchling or even a group of hatchlings can thrive in a properly set up 10- or 15-gallon aquarium. Both a swimming area and an easily accessed haul-out area should be provided. Water temperatures of 74 to 84 degrees Fahrenheit and a basking hot spot of 88 to 95 degrees are recommended. Most hobbyists use an overhead incandescent bulb to heat the basking spot. I strongly urge you to use a mercury vapor bulb, which provides full-spectrum lighting, whenever possible. Temperatures for hatchlings should be at the upper end of the temperature spectrum.

Water of 1 to 1½ inches in depth is fine. Generally, I usually provide water just a bit deeper than the width of the baby turtle's shell. That way, if the turtle happens to overturn, it can right itself with minimal effort. As turtles grow, their water may be proportionately deepened. Filtering water so shallow can pose a problem, so frequent water changes may be the only viable solution. If you have a sphagnum moss haulout for your baby spotted turtles, the moss must be cleaned and washed with every water change.

As water should be deeper for adult turtles, a filtering system is more easily arranged. Remember that water clarity does not necessarily equate to suitable water quality. Turtles of any size, hatchlings included, produce lots of waste. Monitor the nitrates, nitrites and pH of your turtles' water carefully. Frequent partial water changes and a complete weekly change will help you maintain a healthy turtle tank.

Although spotted turtles are a relatively small species, as they grow, the size of their indoor enclosure needs to increase. Three or four adults can be maintained in a tank having a footprint of 24 by 48 inches. This equates to a 50- to 75-gallon aquarium.

Outdoor Husbandry

Because my wife, Patti, and I have plenty of room outside, we opt for enclosures a little larger than actually necessary for our herps. Our adult spotted turtles are maintained in a circular metal stock tank with an 8-foot diameter and a 2-foot depth. The water is 6 to 8 inches deep. Stock tanks are particularly convenient because they have an easily operated drain that allows either partial or complete drainage, and a thorough rinsing. Elodea (formerly Anacharis), Cabomba, Hygrophila and other bunched and floating plants can be kept in both indoor and outdoor setups.

We have a haulout formed from a large plastic container containing several inches of unmilled sphagnum. The spotted turtles spend a good deal of time burrowed deeply in the moss, and they also use this medium for egg deposition. There is an emergent driftwood haulout in the water section. At latitudes where winters are cold, you will need to bring your turtles indoors during the chilly days of late autumn, winter and early spring. Take this necessity into consideration before acquiring this turtle. Spotted turtles have a potential life span of 65 years or more.

Spotted turtles usually breed in the spring and prefer to be submerged. A healthy female may lay two (rarely three) clutches of one to eight eggs. The normal egg count is two to five per clutch. Incubation durations are 60 to 80 days. Eggs should be incubated at 82 to 84 degrees. Hatchlings are about an inch long.

Although they eat some vegetation, spotted turtles are essentially carnivorous. Snails, worms, minnows, carrion and crayfish are standard fare for spotted turtles. Snails are especially favored. In captivity, they will eat pelleted fish foods, puppy chow and commercial aquatic turtle diet. Spotted turtles occasionally munch on duckweed (*Lemna* sp.).

Be sure to not overfeed your turtles. Uneaten food quickly spoils and fouls the water. Baby spotted turtles may be fed daily, but to prevent adult-onset obesity, adults should be fed only every second or third day, and their weight should be monitored closely.