

## Spotted Turtle (*Clemmys guttata*)

### Difficulty: Hard

The spotted turtle is a 4-5.5" / 10-14cm long aquatic turtle, with females typically larger than males. Its most distinctive identifying feature is its black carapace (shell) marked with small yellow spots. The skin is with orange to red markings, and the plastron (belly) is black with irregular pale markings. This species also has a particularly long tail for a turtle.

Spotted turtles are found on the east coast of the United States, from Lake Ontario down to Florida, although isolated populations can be found in southeast Canada. They are primarily diurnal (day-active) with occasional nighttime activity, and most active during the spring months. Preferred habitats are shallow wetland areas with clear, clean water, soft substrate, and plenty of vegetation. Although mostly aquatic, spotted turtles spend a significant amount of time on land as well.

When you pay attention to providing high-quality spotted turtle care, these animals are capable of living for at least 50 years, and possibly over 100. They also need a generously-sized, semi-aquatic enclosure, so this is not a pet to bring home on a whim!

### Shopping List

- Waterland tub, small
- 22" Arcadia or Zoo Med T5 HO forest UVB
- 24" Arcadia or Vivarium Electronics T5 HO fixture
- 34" 6500K LED grow lamp
- 75w PAR38 halogen flood bulbs, x2
- Dual dome heat lamp fixture
- Aquarium heater, rated for 20 gallons
- Plastic heater cover
- Digital probe dry thermometer
- Digital probe aquarium thermometer
- Canister water filter, rated for 55+ gallons
- Filter media
- Siphon
- Surge protector power strip
- Ground-fault circuit interrupter (GFCI)
- Coconut fiber substrate (for basking area)
- Misc. décor (live plants, rocks, wood, etc.)
- Turtle pellets
- Cuttlebone
- Soft toothbrush

### Housing

Spotted turtles need an enclosure that is large enough to give them adequate opportunity to thermoregulate, explore, hunt, and generally exercise natural behaviors. Spotted turtles are not quite as strong swimmers as other aquatic turtles (ex: pond sliders), and spend more time than usual on land, so their enclosure is better measured relative to the turtle's size than by a certain number of gallons:

- 50% land, 50% water
- 2" / 5cm deep for juveniles <3" / 7.5cm long
- 6-8" / 15-20cm deep for turtles >3" / 7.5cm long
- 36"L x 18"W x 12"H (90 x 45 x 30cm) or larger

This enclosure must be completely watertight and leak-proof. This can be accomplished with a wide-base aquarium, shallow stock tank, or pond. Note that ponds (particularly when set up outdoors) are generally superior housing for spotted turtles compared to aquariums.

This care sheet recommends the Waterland Small Water Enclosure for housing spotted turtles because these enclosures are specifically designed for the needs of aquatic turtles.

### **Can multiple spotted turtles be housed in the same enclosure?**

Cohabitation is not recommended for spotted turtles. House one turtle per enclosure — loneliness is not a concern for this species.

## **Lighting & UVB**

Spotted turtles are diurnal, which means that they are most active during the day. This also means that they need exposure to bright light and UVB during the day to maintain good mental and physical health. Light sources should be left on for 14 hours/day during summer and 10 hours/day during winter to replicate natural seasonal rhythms. If you are housing your turtle outdoors, artificial lighting of any kind is not necessary.

### **UVB Lighting**

UVB lighting can be tricky, because in order to get the right strength of UVB (measured by UV Index, or UVI), distance must be considered. To provide appropriate UVB to a spotted turtle in a small Waterland tub, you will need a 22" Arcadia T5 HO 6% or Zoo Med T5 HO ReptiSun 5.0 UVB bulb and a 24" Arcadia or Vivarium Electronics T5 HO lamp fixture.

The lamp should be placed primarily over the land portion of the enclosure, and installed so it hangs 11-13" / 28-33cm over the turtle's back when basking.

*(This recommendation is an approximation. It is strongly recommended to use a Solarmeter 6.5 to determine the best placement to achieve a UVI of around 3.0 – 4.0 in the basking area.)*

### **Daylight Lighting**

A UVB bulb isn't bright enough to replicate daylight. To get a little closer to this goal, you will need to supplement with a pair of 6500K T5 HO fluorescent plant bulbs or a single high-PAR LED lamp, long enough to span 50-75% of the enclosure's length. This is particularly important if you are using live plants, but it is also valuable for supporting your turtle's general wellbeing.

ReptiFiles recommends either one 34" Arcadia Jungle Dawn LED Bar or two 22" Bio Dude Glow & Grow lamps to illuminate your enclosure.

## **Heating**

Humans are *warm-blooded*, which means that our body temperature is regulated automatically. Turtles, however, are *cold-blooded (poikilothermic)*, which means that they have to move between areas of different temperatures to regulate their body temperature. In the wild, spotted turtles warm up by climbing out of the water to bask in sunlight.

Indoors, you will need a halogen heat lamp, basking platform, and possibly a water heater to meet your pet's thermal needs. If you are housing your turtle in an outdoor pond, artificial heating should not be necessary.

- **Basking temperature:** 86-90°F (30-32°C)
- **Water temperature:** 70-84°F (21-29°C)

To create an evenly-heated basking area, you will need two 75-100w Arcadia Halogen Heat Lamp OR Zoo Med Repti Tuff Halogen Lamp bulbs in a Zoo Med Mini Combo Deep Dome dual lamp fixture. Hang the fixture so it is the same distance from the basking platform as the other lamps. If you notice that the basking area is too warm, dial it down with plug-in lamp dimmers. If your basking area is too cool, you will need higher wattage bulbs.

To measure the temperature of the basking area, you will need a digital probe thermometer with the probe placed on the basking surface. To measure the temperature of the water, you will need a submersible digital probe thermometer. The [Zoo Med Digital Thermometer](#) and [Zacro LCD Digital Aquarium Thermometer](#) are good devices for these jobs.

Indoor ponds should be heated with an aquarium water heater that is rated for the amount of water in the enclosure. For example, if you're using the Small Waterland Tub, you'll need an aquarium heater rated for 20 gallons of water with a protective plastic cover, such as the [100w HiTailing Aquarium Heater](#). This heater should be set to maintain the lower part of the turtle's preferred range, not the highest!

## Water Maintenance

Aside from keeping the water at the right temperature, you also need to keep it clean. This requires excellent filtration and regular water changes, making it one of the most expensive and labor-intensive aspects of spotted turtle care. This is required regardless of whether you house your turtle indoors or outdoors.

You need a canister-style filter that is capable of handling at least 2-3x the amount of water in your enclosure, because turtles are *incredibly* messy animals. So for example, if you have 18 gallons of water, you need at least 54 gallons of filter power — this is NOT an aspect of turtle husbandry to cheap out on! ReptiFiles recommends the [Fluval 307 Performance Canister Filter](#) to get the job done.

Filtering alone is not enough. You also need to remove and replace 30% of the water once every 1-2 weeks in order to prevent toxic buildup of compounds like nitrates. To make the job easier, use a [Python siphon](#). Don't forget to thoroughly disinfect the area with veterinary-grade disinfectant if you drain the water into a bathtub or sink!

## Basking Area

Spotted turtles need land in their enclosure, too! This gives them a place to warm up, dry out, walk around, and soak up some good old UVB. If you are using a Waterland tub, as is recommended in this care sheet's shopping list, then the good news is that an ample basking area is already included as part of the enclosure. Simply fill the "land" portion with wet coconut fiber and you'll be good to go! ReptiFiles also recommends embedding a piece of flat stone like flagstone or aquarium slate directly underneath the heat lamp to create the best basking spot possible.

While the basking platforms that you see in pet stores are not best practice for most aquatic turtles, they are particularly inappropriate for spotted turtles, as this species needs more land than average.

## Décor

Decorations play a vital role in your turtle's enclosure as *environmental enrichment*. These items provide climbing opportunities, hiding places, encourage exercise, stimulate your pet's natural instincts, and help promote overall wellbeing. And, of course, they make the enclosure look nicer!

In the wild, spotted turtles like to hide in muddy pond bottoms, mammal burrows, and amongst dense vegetation, so use this fact to guide your choice and application of décor.

**Décor ideas for spotted turtles:** substrate (washed play sand, aquarium sand), mopani wood, manzanita branches, cork logs, rocks, live plants, artificial plants

Suitable live plants for spotted turtles may include: duckweed, pothos, anacharis, potamogeton, cabomba

**Caution:** Artificial plants should be very sturdy, as your turtle may attempt to eat them. Avoid using gravel or pebbles, as these can be accidentally ingested and make your turtle very sick. Also, make sure that any underwater hiding places are large enough that the turtle can't get stuck!

Hatchlings <3"/7.5cm long in particular need driftwood, vegetation, and/or other floating debris to create resting opportunities in the aquatic portion of the enclosure.

## Food

Spotted turtles are *omnivorous*, which means that they need to eat a variety of different types of both plant and animal matter in order to get the nutrients that their bodies need. How often spotted turtles need to eat depends on their life stage:

### Spotted turtles <6 months:

- 50% protein / 50% vegetables
- protein food or pellets daily
- vegetable food daily

- vegetable food daily

### Spotted turtles between 6-12 months:

- 50% protein / 50% vegetables
- protein food or pellets every other day

### Spotted turtles >1 year:

- 25% protein / 75% vegetables
- protein food or pellets 2-3x/week
- vegetable food daily

A portion of protein should be as much as your turtle can eat in 5-10 minutes, a portion of vegetables should be the same size as the turtle's shell, and a portion of pellets should be about the same size as your turtle's head.

The key to providing a healthy, balanced diet for your turtle is VARIETY! Here is a quick list of safe, nutritious foods to get you started:

Protein foods: crickets, earthworms, dubia roaches, discoid roaches, shrimp/krill, bloodworms, silkworms, snails

Vegetable foods: collard greens, dandelion, endive, green leaf lettuce, kale, red leaf lettuce, romaine lettuce

Turtle pellets: Omega One Juvenile Turtle Pellets, Omega One Adult Turtle Sticks, Tetra ReptoMin, Zoo Med Natural Aquatic Turtle Food, Mazuri Aquatic Turtle Diet

## Supplements

Turtle pellets take most of the role of supplementation in a spotted turtle's diet, but you will also need extra calcium. Calcium powder isn't an option, since spotted turtles prefer to eat in the water, but you can use a cuttlebone. Providing a cuttlebone in their enclosure fulfills that need and helps prevent calcium deficiency problems such as MBD. Chewing on cuttlebones also helps keep your turtle's beak trimmed!

Depending on the size of your turtle, it may be best to put the cuttlebone into your turtle's tank whole or to chop it into chunks. However, *don't toss the cuttlebone into your turtle's enclosure without removing the hard plastic backing first!*

Expect to replace your turtle's cuttlebone every 1-2 months.

## Health

Annual hibernation is required for the long-term health and wellbeing of this turtle.