

# BOX TURTLE CARE SHEET

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The box turtle (genus *Terrapene* in the United States) is secretive and usually remains hidden under the cover of low plants and bushes, burrowed in a pile of leaves, or soaking in marshy waters under vegetation. The box turtle has a high-domed carapace (top shell) and a plastron (bottom shell) with a well-developed hinge that enables the turtle to completely seal itself up in its shell (although some overweight specimens are unable to close their shell entirely). The color and pattern on the shell and the skin of this genus is extremely varied and, due to interbreeding between species and sub-species, the identification of the subspecies of a particular specimen can at times be impossible.

CONSERVATION CONCERNS: U.S. box turtles are heavily collected in the wild for the pet trade in this and other countries, to the serious detriment of individual animals and the wild populations. Huge numbers of box turtles die before they can be sold, and many of those finally offered for sale are severely stressed and ill due to grossly negligent and abusive treatment following capture. Box turtles are difficult to keep in captivity. They are most definitely NOT RECOMMENDED as pets for small children.

Genus: *Terrapene* (North America)

SCIENTIFIC NAME	COMMON NAME
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## UNITED STATES BOX TURTLES

(U.S. species arranged in order of their preference for humidity and moisture, Eastern desiring the most and Yellow the least.)

<i>T. carolina carolina</i>	Eastern or Common
<i>T. carolina major</i>	Gulf Coast
<i>T. carolina bauri</i>	Florida
<i>T. carolina triunguis</i>	Three-Toed
<i>T. ornata ornata</i>	Ornate
<i>T. ornata luteola</i>	Yellow or Desert

## MEXICAN BOX TURTLES

T. coahuila Coahuila	Habitat similar to spotted and Bog turtles. Aquatic.
T. carolina yucatana	Similar to Gulf Coast in appearance and habitat.
T. carolina Mexicana	Similar to Three-toed in appearance and habitat.
T. nelsoni nelson	Similar to Ornate in appearance and habitat.

**TEMPERATURE:** Turtles depend on the surrounding air as the only way to increase or decrease their body temperature. In captivity box turtles must be provided year round with a warm area (80o - 85o) and a cooler area allowing the animal to regulate its own temperature as it requires. Always use a thermometer when checking temperatures. Using human judgment of how warm or cool it feels can be very inaccurate. Thermometer(s) should be placed at turtle level. A large outdoor enclosure with sunny and shady areas should be supplemented with an insulated and heated house that remains at 80o - 85o year round. If you find that your turtle is not active, not eating, or is spending all of its time near the heat, THEN INCREASE THE TEMPERATURE OF THE HEAT SOURCE. The number ONE cause of captive turtle death is insufficient heat.

**SUNLIGHT:** Direct sunlight as an ABSOLUTE REQUIREMENT for the turtle's health and growth. This sunlight must NOT be filtered through glass. Turtles MUST also have shade available as well. If their body temperature gets too high, they will quickly die. No artificial lights are acceptable sunlight substitutes on a long-term basis. However, for temporary situations, a reptile type UVB bulb is better than nothing. It produces about 90% of the ultra-violet spectrum which is essential to turtles. [IMPORTANT: UVB bulbs must be replaced about every six months or when the ends of the tube begin to turn a dark color. The light will still operate even when the beneficial part of the spectrum is no longer produced. Most exotic pet stores will test the UVB output of your bulbs for you.]

**OUTDOOR HOUSING AND EXERCISE SPACE:** A large, securely fenced, sunny yard should contain low bushes, clumps of grass, piles of dry leaves, and clean water. Box turtles are excellent climbers and diggers, therefore the perimeter is very important. Chain link and chicken wire fences can be easily climbed by these turtles. Box turtles need to be confined by a 24 inch high fence made of wood, brick or concrete block. They should not be able to see through the walls of the enclosure. You will also need something placed on top of the wood or brick that is perpendicular to the wall, creating an overhang to keep the turtles from climbing out of the yard. Turtles also climb on top of each other in order to escape and corners are especially vulnerable. Be sure to top corners with triangular pieces to further prevent escape. In addition, a well-insulated "dog" house complete with thermostat, red flood light bulbs and a thermometer (at turtle level), should be constructed. The temperature inside should remain at 80o-85oF year round. When such an environment is provided, the turtles stay active and healthy all year long.

**WATER:** Once the enclosure is built with 24 inch high walls, determine where the shallow “pond” is to be placed. Box turtles can easily drown in water deeper than three (3) inches, and they must be able to get in and out of their water dishes easily. An alternative to the pond could be 18-inch diameter plastic or terra cotta flower pot saucers sunk into the soil and filled with clean water is a must. Daily clean water is essential for drinking, soaking and eliminating.

**VERY IMPORTANT:** Not only must turtles be protected from escaping, but they also must be protected from injury, dismemberment and death often caused by dogs, and increasingly by raccoons and foxes. Never say that your dog will never chew on your turtle. Most dogs find turtles fascinating and will harm them if given the chance, especially when you are not watching them. If you have raccoons or foxes in your area, you must lock your turtles in their house at night (or bring them into your house). The turtles' habit of digging into the soil does not protect them from dogs, raccoons and foxes. Another option is to completely screen the enclosure above the wall line, like an aviary.

**NOTE: BOX TURTLE SHOULD NOT BE KEPT IN AQUARIUMS!!!**

You cannot provide the adequate range of temperature necessary to allow the tortoise to self-regulate its internal temperature.

**FEEDING:** Variety is the most important word in feeding. Of course you must offer the proper food. Inadequate diet is the number two cause of turtle and tortoise death in captivity, because it lowers their resistance to illness and disease. The number one cause is keeping the animal at too low a temperature.

All box turtles are omnivorous; that is, they eat both animal food (the entire animal, not just the flesh) and vegetation (fruits and vegetables).

The main diet of the box turtle should be a good quality Veterinary grade dry turtle food. These foods are specifically designed to provide a balance diet you tortoise needs. You can supplement the dry food with occasional treats, including a variety of fruits, some vegetables, earthworms, night crawlers, sow bugs, meal worms, insect larvae and pupae, beetles, crickets, caterpillars, grasshoppers, ground beef heart and beef liver. Snails and slugs should never be fed as they are intermediate hosts for a variety of parasites and the shells of the snails can cut the inside of the turtle's mouth, causing a variety of problems. Also snail bait may contaminate a snail and damage or kill the turtle that eats it. Never feed your turtle Steak, Hamburger or Chicken. Steak and ground meat contain too much fat and raw chicken can be the source of salmonella.

Some of their favorite fruits and vegetables include bananas, mangoes, papayas, cantaloupes, apples, cherries, grapes, all kinds of squash, yams, sweet potatoes, peas, corn on the cob and mushrooms.

**ANT PROBLEMS:** Ants not only accumulate on and eat vegetable matter and meats, they also can kill turtles! You must be vigilant and eliminate ants when they are seen around your turtles and their food dishes. Pouring boiling water on the ant nests is one way. Another method is to remove the turtles and their food and water from the area and spray the ants with Formula 409 All Purpose Cleaner (Clorox company). This not only kills the ants but also removes the ant trail so others cannot follow an established trail to the food or the turtles. Wait 30 minutes, wash the area down with water, and replace the turtles and their food. Some people use white vinegar on the ant hills. Another method to keep ants out of the turtle food is to place the plate containing the turtle's food into a larger plate that has been filled with water. This way the ants cannot cross the water to get to the food. Never use toxic substances inside the turtle enclosure.

**WATER:** These turtles use water for drinking, lowering body temperature, and to clean out their nostrils, eyes and anal openings. Bathing in water also helps the animal eliminate properly. This cleaning plays an important part in keeping the animal healthy and washing off potential parasites which could be harmful. Therefore, water dishes must be kept clean!!

**VITAMIN:** Vitamins and minerals are very important! Box turtles should be given Veterinary grade vitamins and minerals on their food once each week. Place the supplements in a salt shaker and sprinkle on the food lightly. A cuttle bone and mineral block should be constantly available somewhere within their enclosure for them to eat as necessary. Many box turtles are secretive animals and may not eat in the presence of humans and other turtles and tortoises. They require an area where they can hide and feel safe when eating (under low bushes, logs, etc.). Moisture and humidity stimulate activity and eating.

**DANGER:** Do not use snail bait, poisons or fertilizers in the turtle enclosure or on plants and animals the turtle will be fed. These can poison the turtles directly, or indirectly, by the turtle eating bugs that have poison within their bodies.

### HEALTHCARE:

**WINTER HIBERNATION:** Allowing box turtles to hibernate during mild San Diego winters is normally NOT recommended. North American box turtles are native to a climate with very hot summer temperatures both night and day and very cold winter temperatures. In this climate they have many summer rainfalls and a constant source of foods to stock up for a long cold winter and a true hibernation.

As captive box turtles experience a great deal of stress, and the winters here in Southern California are not very cold, we do not feel hibernation is safe. It is recommended that you keep your turtle active and feeding year round by

providing a stable, warm environment as previously described. However, if you live outside of California in true box turtle habitat, contact your local turtle and tortoise or herpetological society for information on hibernation.

**BREEDING:** Box turtles mate predominantly after cooler weather or, to a lesser degree, in the fall before cooler weather; but some mating activity is observed through the summer and those box turtles with access to a heated turtle house sometimes mate all year. Your enclosure must be large enough to provide hiding places where the female has the opportunity to hide and eat unmolested. Sometimes constant mating causes the female to stop eating and can also cause a prolapse (intestine protruding from the cloaca) and eventual death if left untreated and not separated from the male.

**AILMENTS:** Illness in box turtles is evidenced by runny or clogged nostrils, swollen, runny or filmy eyes, large lumps or swollen area near the ear (side of the neck), white or black tongue and/or mouth (normally these are light pink), and not eating for a week. Care Consultants in the Society can help you identify health issues and provide for the name of a veterinarian experienced in treating box turtles. Anyone keeping turtles should be prepared to spend money on veterinary care.