**YVCipedia REPTILES**

Box Turtle Care Sheet

## **Species Overview**

Box turtles (*Terrapene* spp.) are terrestrial, dome-shelled turtles native to North America, known for their unique hinged plastron that allows them to fully retract into their shells and close themselves in like a box. This natural defense mechanism allows them to stay hidden for hours when threatened. Though slow-paced, box turtles are inquisitive, alert, and capable of forming long-term associations with their keepers. Lifespans range from 25 to 40 years, with some individuals living into their 70s or beyond with appropriate care.

Two species are commonly kept as pets: the Eastern/Common box turtle (*Terrapene carolina*) and the Ornate box turtle (*Terrapene ornata*), each with subspecies that display variation in color and markings. Regardless of species, wild-caught box turtles often struggle to adapt to captivity, so captive-bred individuals are strongly preferred.

## **Housing & Environment**

Box turtles require a habitat that supports their active, burrowing lifestyle. While hatchlings and juveniles can temporarily be housed in 20-gallon aquariums, adults require significantly more space and better air circulation. A large indoor enclosure (minimum 4×4 ft) or secure outdoor pen (at least 10×10 ft) is recommended for long-term housing. Outdoor habitats should be predator-proof, dig-proof, and include shelter from sun and weather.

Substrate should promote burrowing and maintain moderate humidity. Box turtles benefit from a moist “dig box” composed of organic soil or peat moss, which also aids thermoregulation and hydration. Hide spots should be placed on both the warm and cool sides of the enclosure to promote natural thermoregulation and reduce stress.

### **Habitat Summary:**

* **Indoor enclosure:** ≥4×4 ft with high walls and solid floor
* **Outdoor pen:** At least 10×10 ft, predator- and dig-proof
* **Substrate:** Organic soil, coconut fiber, or hay over carpet; include moist dig box
* **Hide areas:** On both warm and cool sides of enclosure
* **Enrichment:** Logs, rocks, plants, rotating décor
* **Cleaning:** Spot-clean daily; full substrate change weekly or as needed

## **Lighting, Heat & Humidity**

Box turtles require daily UVB exposure to metabolize calcium and maintain shell and bone health. A 5.0 strength UVB bulb should be placed 12–18 inches above the basking area and replaced every 6–12 months. Ambient daytime temperatures should range between 75–80°F, with a basking spot reaching 85–90°F. Night temperatures can safely drop to 70°F. Ceramic heat emitters or under-tank heaters (regulated with a thermostat) can be used for nighttime heating without disrupting their circadian rhythm.

Humidity should be kept between 40–50%, with the option of higher humidity zones (up to 70%) via dig boxes or misting. Maintaining hydration and preventing respiratory disease depends heavily on consistent, species-appropriate humidity levels.

### **Lighting & Temperature Tips:**

* **Daylight cycle:** 12 hrs light / 12 hrs dark
* **Basking zone:** 85–90°F
* **Ambient daytime temp:** 75–80°F
* **Night temp:** ~70°F
* **Humidity:** 40–50%; up to 70% in dig box areas
* **Lighting:** UVB bulb (5.0 strength); no night lighting

## **Water & Hydration**

Box turtles should have access to a shallow, wide water dish for drinking and soaking. Turtles frequently eliminate in water, so the dish must be cleaned daily and disinfected weekly. Soaking in lukewarm water (84°F) for 10–15 minutes, 2–3 times per week, is recommended, especially for juveniles or during dry seasons. Water depth should not exceed elbow height to prevent accidental drowning.

## **Diet & Nutrition**

Box turtles are omnivorous, with juveniles favoring more protein and adults shifting toward a plant-based diet. A general guideline for adult turtles is 50% high-protein food (e.g., invertebrates, cooked lean meats), 40% vegetables, and 10% fruits. Earthworms, crickets, and snails are ideal protein sources. Avoid processed dog or cat food due to excessive protein content. Calcium supplementation 2–3× per week and multivitamin supplementation once weekly help prevent nutritional deficiencies.

Feeding should occur during daylight hours, ideally after a light misting to stimulate appetite. Finely chopped or pureed salads can help entice picky eaters or those unfamiliar with new foods.

### **Feeding Notes:**

* **Juveniles:** Feed daily
* **Adults:** Feed every other day
* **Protein:** Earthworms, insects, cooked lean meats
* **Vegetables:** Leafy greens (e.g., romaine, chard, mustard greens), squash, carrots
* **Fruits:** Berries, melon, apple (small amounts only)
* **Supplements:** Calcium (2–3× weekly), multivitamin (1× weekly)
* **Avoid:** Dog/cat food, spinach, broccoli, iceberg lettuce

## **Health & Veterinary Care**

Box turtles are adept at hiding signs of illness. Annual exams with fecal and occasionally blood tests are strongly recommended. Signs of health problems may include weight loss, nasal or ocular discharge, poor appetite, soft or deformed shell, overgrown beak or nails, lethargy, and irregular stool. Common medical issues include respiratory infections, metabolic bone disease, parasites, shell rot, and trauma from household pets.

Turtles suffering dog bites or injuries should be evaluated by a veterinarian immediately, even if the shell appears intact.

## **Brumation (Hibernation)**

Brumation is a natural process in some box turtles but is not essential in captivity and can be risky if done improperly. Only healthy adults should be considered for brumation, and a full veterinary assessment is required beforehand. Brumation temperatures are maintained at 45–50°F for 3–4 months, with careful weight monitoring throughout. At the first sign of illness or >10% weight loss, brumation should be stopped. The vast majority of the time, we at YVC do not recommend encouraging or forcing a turtle into brumation as there is little to no benefit for a captive turtle.

## **Behavior & Handling**

Box turtles are solitary and shy but can become responsive with time and consistency. They prefer low-stimulation environments and gentle handling. Always lift by supporting the body from below—never by limbs or tail. Excessive handling can cause stress. Hide areas and environmental enrichment are more important for bonding and wellbeing than physical interaction.

## **Fun Facts & FAQs**

* **Shell closure:** Their hinged plastron allows full shell closure for predator defense.
* **Color vision:** Box turtles can perceive a range of colors and some infrared light.
* **Pet bonding:** Many will approach familiar people, especially during feeding time.
* **Environmental cues:** They are sensitive to temperature, light cycles, and humidity shifts.
* **Long-term pets:** Lifespans can span generations—plan care accordingly.

### **Supplies Checklist**

* Large indoor or secure outdoor enclosure
* Substrate for burrowing (soil, hay, coconut fiber)
* Hide boxes (warm and cool zones)
* UVB bulb and ceramic heat emitter
* Wide, shallow water dish for soaking
* Protein-rich foods (earthworms, insects, cooked lean meat)
* Fresh vegetables and fruits
* Calcium and multivitamin supplements
* Moist dig box for humidity control
* Temperature and humidity monitors
* Weekly enclosure sanitation supplies

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