

# **Box Turtles**

## **Diet and Care Recommendations**

### **GENERAL INFORMATION**

There are six North American box turtles:

**Eastern box turtle** (*Terrapene carolina Carolina*): Found from Massachusetts west to Illinois, and south to Georgia. This species lives in a variety of habitats, including fields, forests, and lake margins. This is a particularly hardy species. The carapace is less domed than that of the other box turtle species, and is short, broad, and brightly patterned. Adults can reach 16 cm in length.

**Three-toed box turtle** (*T. c. triunguis*): Found throughout much of the central United States, from the Mississippi River Valley west to Texas and as far eastward as Florida. This is a particularly hardy species that prefers drier habitats and is the most likely of all North American species to be found away from water. Individuals often develop orange, red, or yellow markings on the face and forelimbs. Despite the name, a rare three-toed box turtle may have a vestigial fourth toe on the rear feet. The carapace is often plain olive to tan in color. Adults can reach 16 cm in length.

**Gulf Coast box turtle** (*T. c. major*): Found in the gulf coast region of western Florida, southern Louisiana, and eastern Texas. This species loves moisture and is often found in shallow bodies of water. The carapace usually has no markings, and the posterior marginals are strongly flared. This is the largest species of box turtle in North America. Adults can reach 20 cm in length.

**Ornate box turtle** (*T. o. ornata*): Found over much of the central United States, from eastern Indiana to eastern Texas and Louisiana. This species prefers moist, irrigated areas. Ornate box turtles are favored for their beautiful carapace markings. Their carapace is less domed than other box turtle species, and they often have yellow markings on their face and forelimbs. They lack vertebral keel found in the Florida box turtle. Adults can reach 14 cm in length.

**Florida box turtle** (*T. c. bauri*): Found only in peninsular Florida and the Keys, and is rare in the pet trade. Florida box turtles look similar to Ornate box turtles, but they can be distinguished by their carapace, which has a vertebral keel. They normally have three toes on their rear feet. Florida box turtles love moisture and are found in wet areas throughout their range. Adults reach 15 cm in length.

#### DIET

**Invertebrates**: 50%, consisting of earthworms, whole thawed fish, slugs, snails, and crickets. You can also feed phoenix worms and silk worms. Avoid mealworms and waxworms, as they are high in fat and phosphorus. Do not feed commercial cat and dog food!

**Fruit and Vegetables**: 50% leafy greens and vegetables, including collard greens, mustard greens, dandelion greens, chard, kale, parsley, bok choy, squash, and carrots. Avoid iceberg and romaine lettuce, as they have little nutritional value. Fruit choices include berries, apple and tomatoes.

#### **ENVIRONMENT**

Box turtles should be kept in a cage that provides them with plenty of space to move around and hide.

**Lighting**: Box turtles require a specific wavelength of light called UVB. It is required for the proper absorption of calcium. We recommend using a full-spectrum bulb, the Reptisun 5.0 or 10.0, manufactured by ZooMed. Leave UVB bulbs on for 14 hours a day, and make sure that the bulb is not filtered through glass or plastic. These bulbs need to be changed every 6 months because their effectiveness as a UVB ray emitter decreases over time.

**Heat**: Use ceramic heat emitter bulbs. The temperature gradient should be 85-88°F on the hot end and 70-75°F on the cool end. Keep a thermometer at basking level on the hot end of the enclosure, and at ground level on the cool end. Never use heat rocks or heating pads, as they can cause severe burns.

**Substrate**: Coconut fiber and compressed peat are types of bedding that hold moisture and allow turtles to burrow. Carefresh and other paper beddings are also acceptable if the humidity can be maintained. Avoid all types of sand, including calcisand.

**Moisture:** Provide a large dish of water for soaking and defecating. Change the water daily.

#### **MEDICAL CARE**

**Exams:** Bring box turtles in for an annual exam once a year. A blood panel may be recommended. We recommend repeating fecal test every year to check for internal parasites.

#### **Common Illnesses:**

Shell deformity: This problem can occur when box turtles are fed an improper diet.

**Parasitic Infections**: Symptoms include: loss of appetite, inability to gain weight, and slow growth. Diagnosis is by fecal testing and treatment involves administering an oral anti-parasitic medication.

**Upper Respiratory Infection (URI)**: These infections can be caused by improper husbandry, particularly when the environment is kept too cold. Upper respiratory infections in this species can or bacterial in nature. Symptoms include: discharge from nose or eyes, decreased appetite, and lethargy.