

# Diamondback Terrapins

## *Malaclemys terrapin*



Northern Diamondback Terrapin, *Malaclemys t. terrapin*, with a moss-covered carapace. Photo by Russ Gurley.

**Comments:** Diamondback Terrapins have become one of the most popular species of North American turtles being kept by turtle breeders. They are hardy, inquisitive, and a myriad of geographic varieties and phenotypes exist.

### **Taxonomy:**

*Malaclemys terrapin centrata* (Latreille, 1802) Carolina Diamondback Terrapin  
*Malaclemys terrapin littoralis* (Hay, 1904) Texas Diamondback Terrapin  
*Malaclemys terrapin macrospilota* (Hay, 1904) Ornate Diamondback Terrapin  
*Malaclemys terrapin pileata* (Wied, 1865) Mississippi Diamondback Terrapin  
*Malaclemys terrapin rhizophorarum* Fowler, 1906 Mangrove Diamondback Terrapin  
*Malaclemys terrapin tequesta* Schwartz, 1955 Florida East Coast Diamondback Terrapin  
*Malaclemys terrapin terrapin* (Schoepff, 1793) Northern Diamondback Terrapin

**Distribution:** The seven subspecies of Diamondback Terrapins are found along the East Coast of the United States, west to Texas, and south to Florida.

**Adult Size:** Adult females grow to 9" (24 cm) and adult males to 5" (12 cm)

**Captive Care:** Good water quality, provided by proper filtration, is imperative to the well-being of Diamondback Terrapins. Therefore, always reduce your likelihood of problems by not crowding them and offer them plenty of clean, aerated water. Indoors, a basic setup in a large aquarium, tub, or stock tank will be sufficient to hold a pair or trio of adult Diamondback Terrapins. Add an efficient filtration system. Diamondback Terrapins are baskers, so add a shop light fixture with UVB-emitting bulbs and at least one basking spot created by heat lamps mounted above. Add a variety of floating and submerged aquatic plants to the enclosure to help keep the water clean and plants will add some variety to their diet.

We suggest a water temperature of 76 to 78° F (24 to 26° C) and the optimal pH for captive Diamondback Terrapins seems to be in the 6.8 to 7.0 range. In much of their natural range, Diamondback Terrapins are found in brackish water. Therefore,

many keepers add salt to their enclosures. Most keepers feel that Diamondback Terrapins raised in captivity do not require this raised salinity level, but we believe that some aquarium or marine salt helps, as salinity prohibits or greatly reduces the growth of many types of bacteria. We suggest adding about one tablespoon per gallon of water for Diamondback Terrapin enclosures, both inside and outside.

**Note:** These turtles love the sun! Basking is an important part of a Diamondback Terrapin's daily routine and sturdy basking sites should be available to babies, juveniles, and adults.

**Feeding:** As carnivores, most Diamondback Terrapins will readily accept any number of commercial turtle diets. We suggest a mixture of three or four different high-quality brands. Fish, frozen crayfish or shrimp, and earthworms should add to the variety. Fresh and freeze-dried krill, and brine shrimp can also provide a great treat for these turtles.

**Common Health Problems:** Wild-caught Terrapins tend not to acclimate to captivity well. They are typically quite nervous and seem to stress easily. Wild specimens occasionally exhibit shell problems that might be related to changes in salinity (from saline environments to freshwater). And no doubt the stress of entering a captive situation. There are so many successful and thoughtful Diamondback Terrapin breeders in the United States, and captive-hatched babies are generally healthy and grow quickly. In addition, they are parasite-free and stress-free, so working with them is a win-win proposition.

If kept in poor water conditions with a sub-optimal diet, Diamondback Terrapins will often show a range of shell problems including metabolic bone disease, "warping", soft shell disease, and fungal infections. These turtles will often die. Poor water quality often leads to eye problems in these turtles. Lack of direct sunlight, UVB-emitting bulbs, or poor diet can lead to these ocular problems as well as to shell deformities and other nutrition-related problems.

**Breeding:** Diamondback Terrapins breed well in captivity and captive-hatched specimens are readily available. There are a wide variety of specimens produced and there is a move by attentive and passionate Terrapin breeders to keep the subspecies and even geographic strains pure. Hibernation or a cooling period seems to be an important trigger for mating in Diamondback Terrapins. During the spring and summer, there are occasional fights and aggression seen in both males wanting to mate and from females that are gravid. Despite these occasional aggressive behaviors, Diamondback Terrapins are typically easy to keep and breed. A prolific pair or trio can produce up to three clutches of 5 to 8 eggs, which hatch in 80 to 90 days, depending on incubation temperature.



Diamondback Terrapin spotted at Grand Bay National Estuarine Research Reserve in Mississippi. Photo by Christina Mohrmann. Courtesy of Grand Bay National Estuarine Research Reserve.



Diamondback Terrapins spotted basking in Port Mahon, Delaware. Photo by Laura Wolf.



A successful Diamondback Terrapin enclosure created in a Waterland Tub. Photo by Russ Gurley.

Captive-hatched Diamondback Terrapins thrive in captivity as long as their enclosures are thoughtfully prepared. Young Diamondback Terrapins enjoy clean, filtered, and aerated water and plenty of basking areas with hot spots of 90° F (32° C). Offer them live plants and a variety of commercial diets and live foods. They will grow quickly and can reach breeding size in 3–4 years (males) and 5–7 years (females).

Ornate Diamondback Terrapin, *Malaclemys terrapin macrospilota*, from northern Florida and along the west coast of Florida, is recognized by the light yellow to orange centers to its scutes. It lives in saline habitats and most keepers add one tablespoon of salt per gallon of water in their enclosures. They benefit from a healthy captive environment in a large stock tank or pond with plenty of clean water and live plants. They are avid baskers, so offer them a variety of decorations that break the surface of the water. A healthy adult female will typically lay two clutches of up to 10 eggs each year. The eggs incubate for 55–60 days at 81–86° F (27–30° C) and the emerging hatchlings are typically strong, eager feeders on a variety of live prey. Soon after beginning to feed, commercial turtle food can be added to their balanced diet.



A stunning captive-hatched Concentric Northern Diamondback Terrapin, *Malaclemys terrapin macrospilota*. Photos by Elizabeth Casimiro.

The Texas Diamondback Terrapin, *Malaclemys terrapin littoralis*, has a dark, heavily grooved carapace with a knobby dorsal keel. It has gray skin with dark spots or speckling and typically has a pretty white to grayish-blue head. This subspecies is found from eastern Louisiana to east Texas.

#### **Works Cited and Suggested Reading**

- Pawlowski, S. and C. Kramer. (2010). On the Comfort Behavior of Diamondback Terrapins, *Malaclemys terrapin* (Schoepff, 1793). *Radiata* 19(4): 19–25.
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\* All *Malaclemys terrapin* are listed on Appendix II of the Convention on International Trade in Endangered Species (CITES).