

Captive Care of the Eastern Diamondback Rattlesnake

Crotalus adamanteus

By Chris Harper

**DANGEROUSLY VENOMOUS: POTENTIALLY LETHAL
DO NOT ATTEMPT CAPTIVE CARE WITHOUT TRAINING!**



Size: 3 to 5 feet **Max:** 8 feet

Life expectancy: About 20 years

Distribution: Southeastern U.S.; South Carolina, Georgia, Florida, Alabama, Mississippi. Formerly also in Louisiana and North Carolina.

Caging: The size of a cage is generally the most overlooked factor by private keepers. As a general rule to keep snakes healthy, the bigger the better. Glass fish aquariums should not be used. A full grown eastern diamondback will require a cage at least as long as its own body. Height is not a major factor; however 2 feet tall should be the minimum. A hide spot should be provided. Juveniles have been found to spend the majority of their life underground.

Substrate: A thick bed of dried cypress mulch alone or mixed with aspen shavings. Aspen shavings alone tend to be too dry. *Never use cedar or pine shavings!* Pine straw and pine bark have also been reported to have detrimental effects and are not recommended.

Diet: Mice and rat pups for juveniles. Pre-killed rats, small rabbits or baby chicks are taken by adults. Any wild prey items such as gray squirrels should be frozen for at least 2 weeks to kill internal parasites. Any frozen items should be completely thawed and warmed (the sun, heat

lamp, blow dryer) to around 100F. [Heat is a major factor in getting a captive eastern diamondback to strike.]

Tip for successful feeding: Using a pair of tongs or long hemostats, the heated prey item is suspended in front of the snake until it strikes. The item is then immediately dropped, the cage closed and the keeper leaves the room.

Water: A large water bowl should be provided for adults. This helps maintain humidity levels in the cage. Captive snakes are susceptible to respiratory infections which can often be traced to low humidity levels which dry and inflame mucous membranes. Additionally to prevent dehydration, about once every 10 days, an eastern diamondback can be soaked in a large container of clean cool water for about 2 hours. Maintain a close watch in the event that the snake defecates in the water, so that you can remove it and place it in more clean water. The water should be no deeper than the diameter/thickness of the snake.

Temperature: 76F is the optimal daytime temperature for adult eastern diamondbacks according to research conducted at the Webb Research Center in South Carolina. Anything above 84F is stressful and may cause regurgitation or anorexia. Summer night time temps – 68 – 72F. Winter brumation temps - 48F – 60F.

Humidity: Moderate. Mist cage with clean water periodically. Cage ventilation temps and room humidity's will have to determine the frequency of misting.

Light: Normal light cycles should be imitated. This can be easily accomplished by the use of timers attached to lights. A basking light on one end of the cage is preferable for thermoregulation purposes.

Brumation: Eastern diamondbacks usually stop eating around October or November and start back around March. Prior to brumation, the snake should be allowed to defecate it's last meal at a normal temperature. During brumation, it is preferable to allow temps to drop variably from 48 to 60F. This will slow the snake's metabolism and allow it to live off of fat stores for a much longer period. Clean water should be provided throughout the dormant cycle.

Breeding: Brumation is required for successful breeding to take place. Copulation occurs in the late summer or early fall, however the eggs do not enter the oviducts until much later on. (Bruce Means, Ph.D. pers.comm.) Gestation is around 25 to 29 weeks and from 8 to 21 live young are born in the seclusion of gopher tortoise burrows or stump holes. Prior to giving birth, females can be expected to stop eating. Females reproduce every two to 3 years.

Misc: Keep feces and shed skins removed. Keep drinking water clean! Replace at least every 5 days. Animals housed together should be similarly sized. Animals should be separated during feeding.

Note: *Wild caught adult eastern diamondbacks make terrible captive animals. They rattle constantly, strike at every possible chance, and often refuse to eat. If possible, captive born/bred specimens are preferred.*

Snakebite: Eastern diamondback bites should ALWAYS be treated by a physician in an emergency room. Even the mildest bites can lead to the loss of a finger or its use. Here's what to do if you are bitten by a captive specimen:

- Remain calm and secure the snake (*but only if it is possible to do so without sustaining another bite.*)
- Immediately call 911 and activate EMS. *Within 5 to 10 minutes you might not be able to walk or talk.*

- DO NOT WAIT FOR SYMPTOMS TO APPEAR! You will be much better off in an emergency room if they do.
- Remove any rings or watches, as swelling can be expected almost immediately.

At this stage, hopefully someone will be with you to complete the following tasks.

- For bites by vipers or pitvipers, splint the limb as you would for a fracture.
- Do not apply tourniquets or ice. Do not use electrical shock treatments. Do not cut and suck. All of these treatments have been shown to have detrimental effects.
- Keep the affected limb in a neutral position in relation to the heart.
- Treat for shock. If the patient becomes pale and sweaty, have them lie down and elevate their legs (20 to 30 degrees of elevation is adequate). However, do not elevate a bitten leg.
- If the victim becomes unconscious, roll him on to his unbitten side. This will greatly reduce the possibility that the victim will inhale his own vomit.
- Begin rescue breathing or CPR as indicated.
- Get to the nearest hospital as quickly as possible. (*Ambulances are the safest way to accomplish this.*) Rapid antivenom treatment is critical to the successful recovery of a snakebite victim.

Antivenoms:

Antivenom Code: SAmPRO01

Antivenom Name: Polyvalent crotalid antivenom (CroFab), Ovine, Fab

Manufacturer: Protherics Inc. (US)

Phone: ++1-615-327-1027

Address: 1207 17th Avenue South

Suite 103, Nashville

Tennessee 37212

Country: U.S.A.

Antivenom Code: SAmIBB07

Antivenom Name: Soro antitropico-crotalico

Manufacturer: Instituto Butantan

Address: Av. Vital Brasil, 1500 Butanta

05503-900

Sao Paulo - SP

Country: Brazil

Antivenom Code: SAmIBM06

Antivenom Name: Antivipmyn

Manufacturer: Instituto Bioclon

Phone: ++525-488-3716

Address: Calzada de Tlalpan No. 4687

Toriello Guerra

C.P. 14050

Mexico, D.F.,

Country: Mexico