

Florida is home to 45 species of native snakes, six of which are venomous (snakes are not poisonous -- "poisonous" refers to something that is toxic when ingested). The venomous species include five pit vipers (Eastern diamond-backed rattlesnake, timber rattlesnake, pygmy rattlesnake, copperhead, and cottonmouth) and the coral snake. Copperheads and timber rattlesnakes have a limited range in Florida. Copperheads occur only in a small area of Florida's Panhandle just west of Tallahassee, and timber rattlesnakes are found only in northern Florida as far south as Gainesville and in limited portions of the Panhandle. The other four venomous species are found throughout the state.

The five species of pit vipers share several characteristics. The pupils of their eyes are vertical (cat-like), and they have a deep facial pit between each eye and nostril. These characteristics can be difficult to see unless a snake is examined closely, so do not rely on them to differentiate venomous from non-venomous species. Florida's pit vipers have blocky, triangular-shaped heads that are distinctly broader than their necks. Relative to their length, these species are heavy-bodied snakes.

Although each of the six venomous species in Florida has unique characteristics that allow them to be readily identified by experts, there are many non-venomous species with which the venomous species may be confused. Therefore, it is best not to attempt to capture, harass, or harm any snake. Doing so could put a person at risk of being bitten by a venomous species.

The cottonmouth is the most aquatic of Florida's venomous snakes and occurs throughout the state. Although these snakes might exceed five feet in length, most adult cottonmouths observed in Florida are about three feet long. This species prefers the margins of lakes, rivers, and wetlands. Adults are dark-colored and might have a faint cross-band pattern or be a uniform black. The eye is camouflaged by a broad, dark facial band that runs from the eye to the back of the head. As a defensive response when threatened, cottonmouths often will open their mouths wide, revealing the cotton-white interior. Young cottonmouths are brightly colored with reddish-brown cross bands and a yellow-colored tail. When young, they look very similar to the copperhead.

Several species of harmless water snakes are often mistaken as cottonmouths. Water snakes are not venomous, but they tend to be aggressive and quick to bite. To avoid confusion and the potential for being bitten, it is best to leave all water snakes alone.

In Florida, copperheads occur only in a small area of Florida's Panhandle just west of Tallahassee, primarily along the Apalachicola River and its tributaries. Copperheads prefer to remain near streams and wet areas. A full grown copperhead is usually less than three feet long. Copperheads are relatively thick-bodied with bold markings. The general body color of these snakes is light brown to gray, and there are large bands of darker brown along their backs. Because of constrictions in the darker bands along the center of the back of this species, the darker bands have an hourglass shape. The alternating pattern of lighter and darker bands provides copperheads with exceptional camouflage in the forested areas where they live. This is a very dangerous snake and should not be approached.

The Eastern diamond-backed rattlesnake is Florida's largest venomous snake and can exceed six feet in length. It occurs throughout Florida in a variety of dry habitats, such as pinelands, scrub, and golf courses. Eastern diamond-backed rattlesnakes have bold markings down their backs that include a row of large, dark diamonds with brown centers and cream-colored borders. The tail ends

in a rattle that is used to make a loud buzzing sound when the snake feels threatened. Some individuals might not rattle, even when they are poised to strike. The large, thick head has a light-bordered, dark facial band running diagonally through the eye to the rear of the jaw. The scales of this species are strongly keeled, giving these snakes a rough appearance.

Timber rattlesnakes prefer moist pinelands, river bottomlands, and hammocks. Timber rattlesnakes can grow to five feet or longer. These snakes usually have a pinkish-gray to tan body color (although some are very dark colored) with prominent, irregularly-shaped, dark marks and bands. A reddish-brown stripe runs along the middle of the back of timber rattlesnakes. The tail of the species is dark brown or black and ends with a large rattle. Timber rattlesnakes have large, thick heads, and there might be a dark facial band running from each eye to the rear of the head.

Pygmy rattlesnakes are the smallest of Florida's venomous snake species. Adults rarely exceed 20 inches in length. Pygmy rattlesnakes range throughout the state and occur in many different habitats that include pine flat woods, oak scrub, open pinelands, and palm hammocks. This is one of the most commonly encountered venomous snakes that occasionally is found in residential neighborhoods. Pygmy rattlesnakes have a dark facial band that runs from each eye to the rear of the jaw. Their bodies are covered with numerous dark blotches with a row of darker blotches running down the middle of the snake's back. Usually a series of reddish-brown marks can be seen between the blotches on the back. The rattle on the tip of the tail of this species is so small that it cannot be heard even when shaken vigorously by the snake. Pygmy rattlesnakes are bold and will often hold their ground if approached. They will bob their head and strike into the air if they feel threatened.

Coral snakes occur in many types of habitats throughout the state but are seldom encountered because they are quite secretive and spend much of their lives underground. They are rarely longer than 30 inches and are usually no bigger around than a quarter. Coral Snakes are identified by the alternating bands of black, yellow, and red that give this species its bold appearance. Two non-venomous species look very similar to coral snakes because they also have bands of red, black, and yellow (or orange or white). However, the arrangement of the bands differs between the non-venomous species (scarlet king snake and scarlet snake) and the coral snake. In the two non-venomous species, the red bands touch only black bands, but in coral snakes the red bands only touch yellow bands. Remember the stoplight phrase “yellow, red, STOP!” If the red and yellow bands are next to each other, like the colors of a stoplight, it is a coral snake. Another feature of the coral snake is its blunt, black snout, which is followed by a band of yellow on the head. Neither scarlet king snakes nor scarlet snakes have black snouts.

Most snakes that Florida's “human” residents can expect to encounter are non-venomous. People who do encounter snakes should maintain a safe distance and leave them alone. With the possible exception of the pygmy rattlesnake, Florida's snakes are not aggressive and provide a beneficial service, eating rodents and insect pests. Some non-venomous species actually eat the venomous varieties. A smart homeowner learns to differentiate the venomous from the non-venomous varieties.

Adapted from an article by Steve A. Johnson and Martin B. Main. U.S. Department of Agriculture, Cooperative Extension Service, University of Florida, IFAS, Florida A. & M. University Cooperative Extension Program, and Boards of County Commissioners Cooperating. Millie Ferrer-Chancy, Interim Dean. 2009. <http://edis.ifas.ufl.edu/uw229>

## HESI A2 Reading Passage 6

1. Which of the following titles would be best for this passage?
  - a. Florida's Venomous Vipers
  - b. Florida's Poisonous Snakes
  - c. A Guide to Florida Snakes
  - d. Venomous Snakes of Florida
  
2. It can be concluded from the passage that Treasure Coast residents \_\_\_\_\_
  - a. are more likely to encounter a pygmy rattlesnake than a coral snake.
  - b. are more likely to encounter a cottonmouth than a timber rattlesnake.
  - c. will never encounter a coral snake.
  - d. should only be concerned about pit vipers.
  
3. According to the passage, one of the characteristics of an Eastern diamondback is \_\_\_\_\_
  - a. it is never found in waterways.
  - b. it has horizontal pupils in its eyes.
  - c. it prefers dry habitats.
  - d. it always rattles before striking.
  
4. The word "toxic" in the first paragraph most nearly means \_\_\_\_\_.
  - a. intolerable
  - b. sickening
  - c. abhorrent
  - d. poisonous
  
5. It can be concluded from the passage that coral snakes \_\_\_\_\_
  - a. tend to be reclusive.
  - b. are aggressive in nature.
  - c. are classified as pit vipers.
  - d. are a species of scarlet snakes.
  
6. The passage implies that \_\_\_\_\_
  - a. Florida has more venomous snakes than other states.
  - b. only venomous snakes are threats to bite.
  - c. pit vipers are more aggressive than other species.
  - d. it is not uncommon to find snakes anywhere in the state.

## HESI A2 Reading Passage 6

7. It can be inferred from this passage that \_\_\_\_\_.
- Florida residents cannot distinguish venomous snakes from harmless snakes.
  - some harmless snakes can be misidentified as venomous snakes.
  - venomous snakes are far more common than non-venomous snakes.
  - Florida's Panhandle residents are more likely to encounter a dangerous snake than South Florida residents.
8. All of the following are mentioned except \_\_\_\_\_.
- the coloring of young cottonmouth snakes.
  - the shared characteristics of pit vipers.
  - the venom of coral snakes.
  - the aggressiveness of non-venomous water snakes.
9. All of the following are mentioned in the passage. Which two are compared?
- copperheads and cottonmouths
  - timber rattlesnakes and pygmy rattlesnakes
  - coral snakes and copperheads
  - pit vipers and Eastern diamondback rattlesnakes
10. Most likely, the author's purpose in writing this passage was to \_\_\_\_\_ Florida residents.
- frighten
  - inform
  - entertain
  - persuade

### HESI A2 Reading Passage 6 Answers

1. D   2. A   3. C   4. D   5. A   6. D   7. B   8. C   9. A   10. B

**Note:** For questions or explanations, please visit one of the Indian River State College's Academic Support Centers or Virtual Tutoring Collaborate classrooms to review answers with an English/reading tutor.