Florida Python Challenge Snake ID Guide

An ID guide for identification of native snakes commonly confused with Burmese pythons that can be found while participating in the Florida Python Challenge™

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Banded Watersnake

Saltmarsh Snake

Brown Watersnake

Black Racer

(Juvenile)

Native

Cornsnake

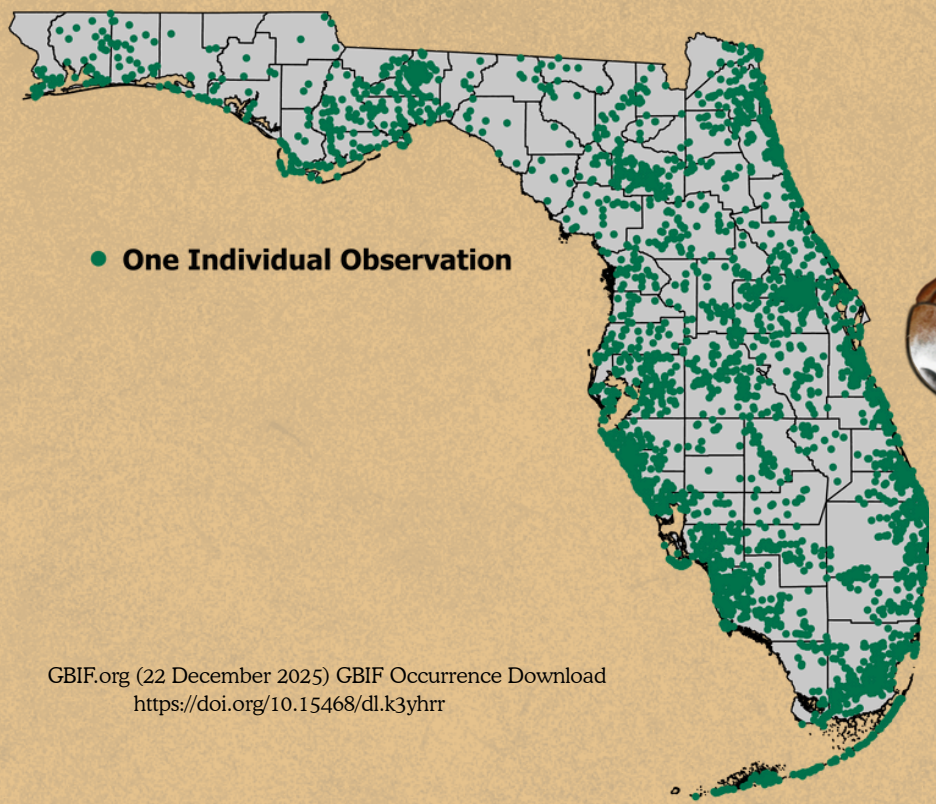
Pantherophis guttatus

Non-venomous

- Semi-arboreal, can be found in a variety of natural and disturbed habitats
- Red, orange, or brown patches with black edges and a reddish-orange or brown dorsal color; spear-shaped mark on head
- Checkerboard pattern on venter (underbellly)
- Can have varied coloration; but pattern remains similar
- Circular pupils

Ventral

Dorsal



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Florida Green Watersnake

Native

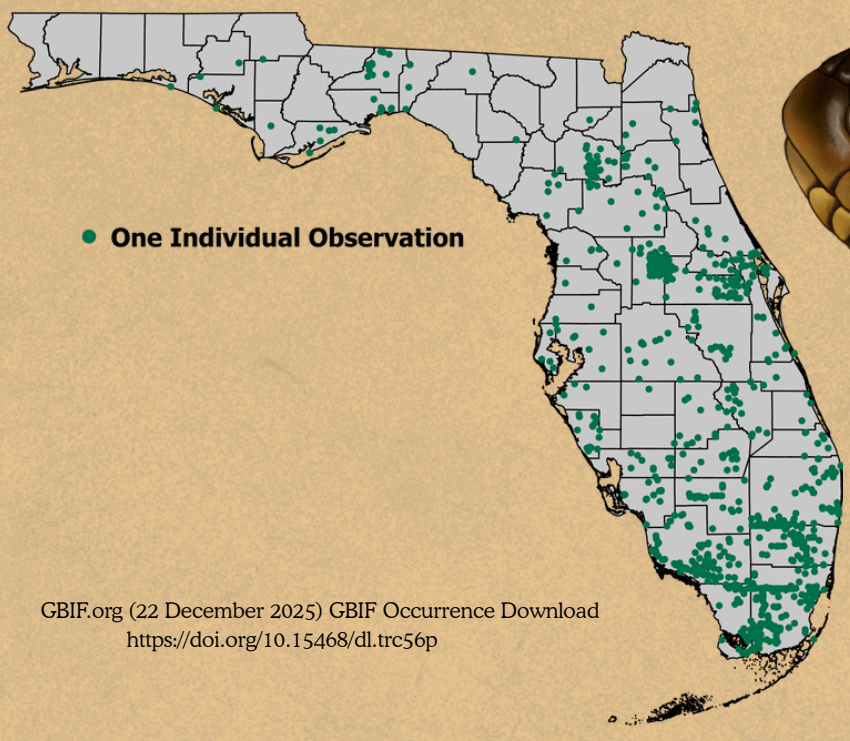
Nerodia floridana

Non-venomous

- Semi-aquatic, often found in vegetated and shallow water habitats like ponds, swamps, and marshes
- Large, heavy bodied snake with a short snouted face, and dorsally oriented eyes (on top of head)
- Scales present between the eye and labial (lip) scales that are unique to species
- Green (common coloration), tan, or red dorsal coloration with faint dark blotches
- Largely nocturnal; can be found hunting for frogs after heavy rains along roads

Ventral

Dorsal



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Native

Banded Watersnake

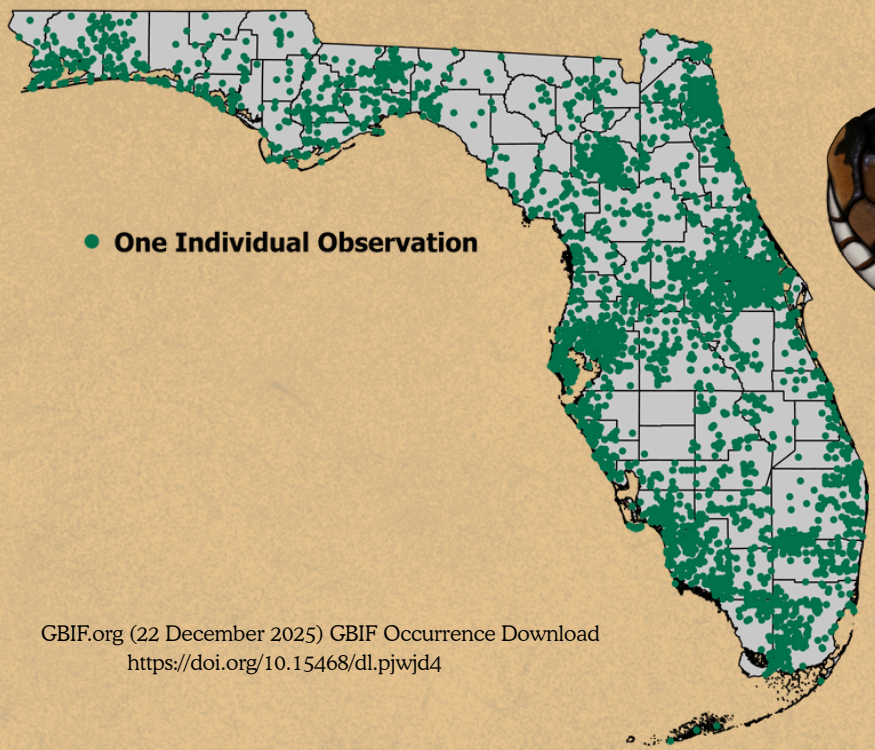
Nerodia fasciata

Non-venomous

- Semi-aquatic, typically inhabits freshwater ponds, marshes, and vegetated ditches
- Eyes oriented dorsally
- Highly variable coloration (tan, reddish, dark brownish - black) with banding on dorsal surface; light belly with brown, reddish, or black triangles on central scales
- Mainly nocturnal; can be found crossing roads after heavy rains

Ventral

Dorsal



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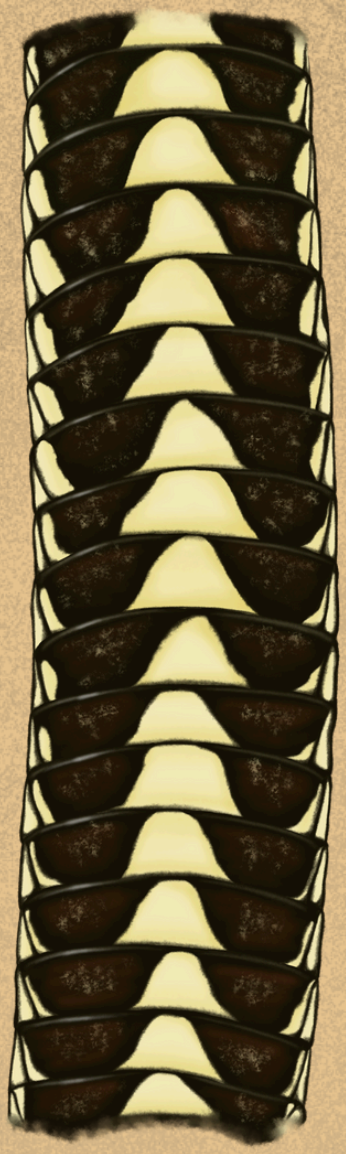
Native

Saltmarsh Snake

Nerodia clarkii

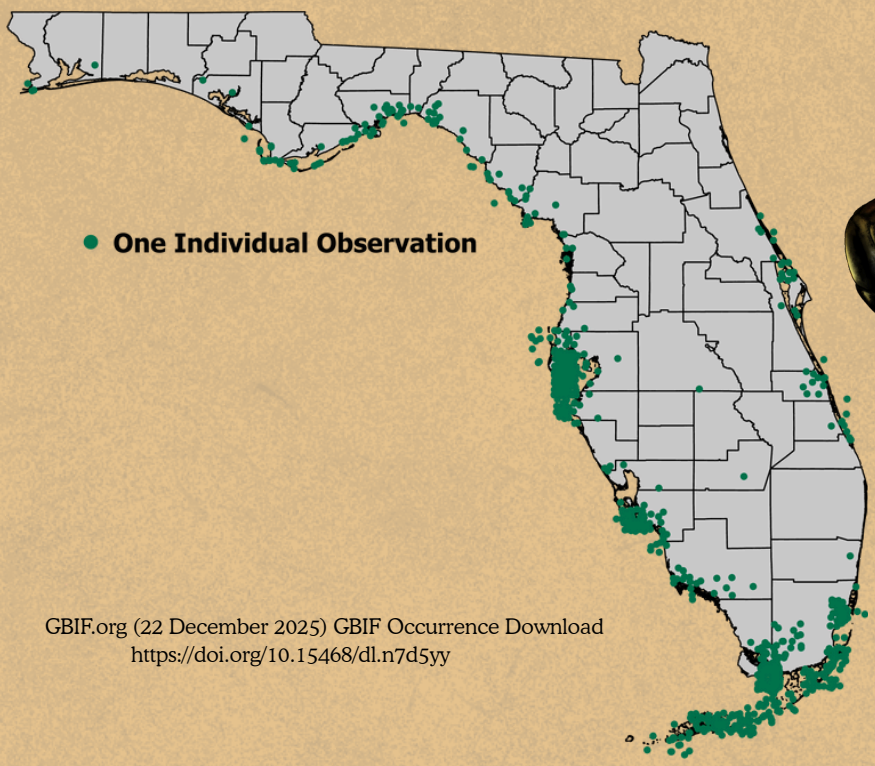
Non-venomous

- Semi-aquatic, inhabits coastal habitats, often found in or near mangrove forests
- Dorsally oriented eyes'
- Highly variable in coloration; tan, gray, black, reddish-orange dorsum with dark banding
- Some solid color individuals are rust, yellow, orange, or black in color
- Commonly confused with banded watersnake



Ventral

Dorsal
(Three color variations)



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Native

Brown Watersnake

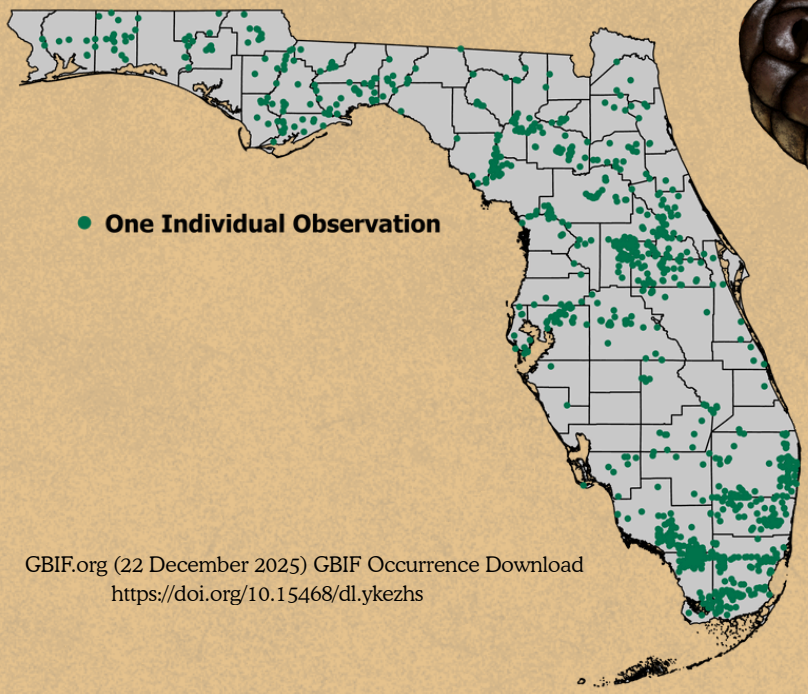
Nerodia taxispilota

Non-venomous

- Semi-aquatic, often found in canals, freshwater ponds, marshes, and cypress swamps
- Large, heavy-bodied snake with dorsally oriented eyes
- Lighter brownish-tan dorsal coloration with darker square-shaped alternating patches
- Commonly mistaken as venomous cottonmouth, or Burmese python due to large size and pattern

Ventral

Dorsal



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Profile

Black Racer

Native

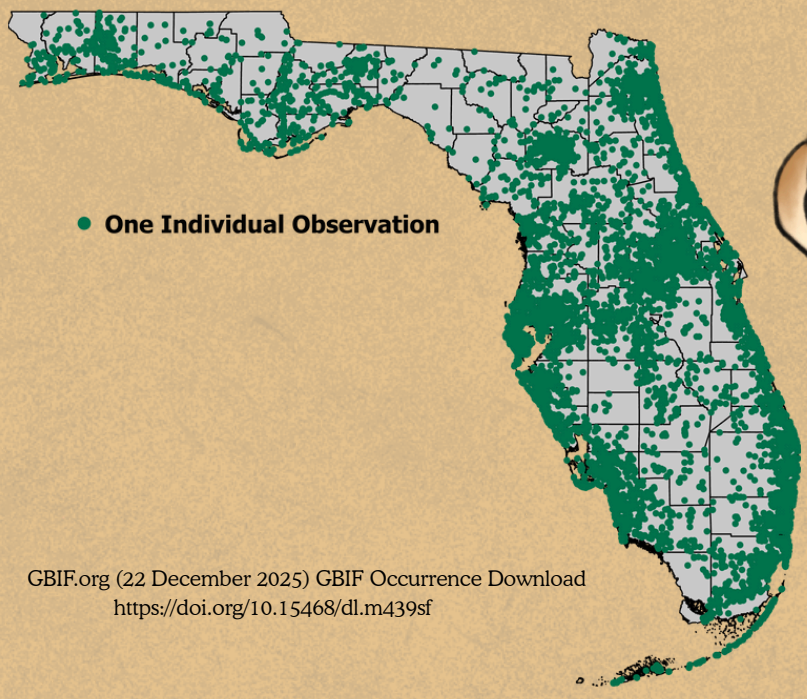
Coluber constrictor

Non-venomous

- Terrestrial, can be found in a range of upland habitats, including disturbed and undisturbed
- Black dorsal coloration with a white chin as an adult; ventral surface is light; no distinct markings on dorsal or ventral surface of adults
- Juveniles look markedly different than adults, with a light-gray dorsal coloration with reddish-brown patches
- A fast-moving snake that is active during the day

Ventral

Dorsal



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Florida Kingsnake

Native

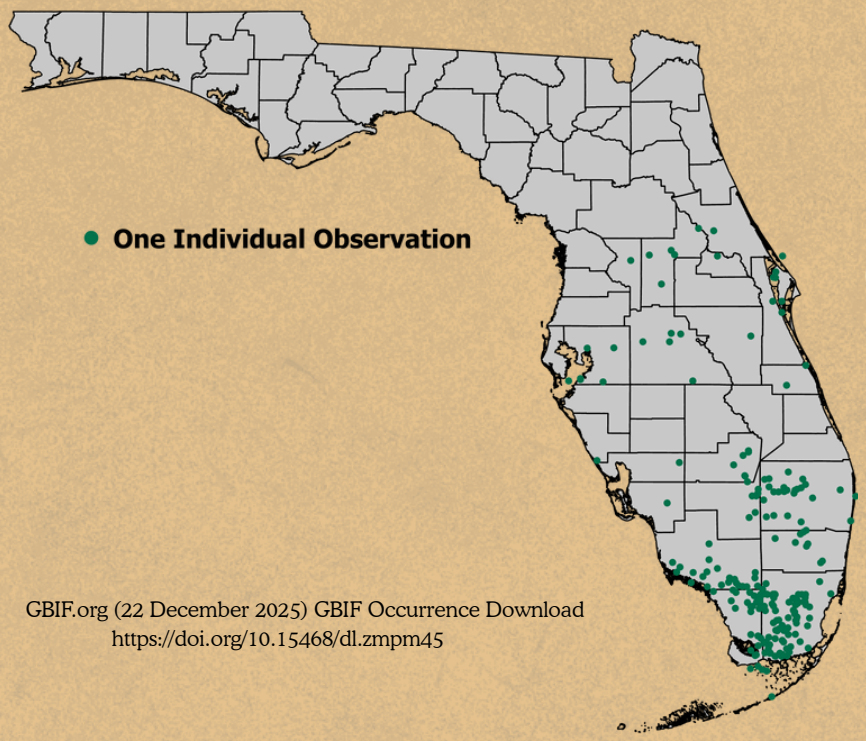
Lampropeltis floridana

Non-venomous

- Terrestrial, can be found around wetlands with adjacent upland habitat (e.g., hardwood hammocks and cypress stands)
- Dorsal surface has light-colored bands with darker scales between bands; scales are shiny in appearance; head and body uniform without taper (no distinct “neck”)
- Yellowish-cream coloration on ventral surface
- Roughly 3-4 feet adult length
- Smooth scales

Ventral

Dorsal



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Florida Cottonmouth

Native

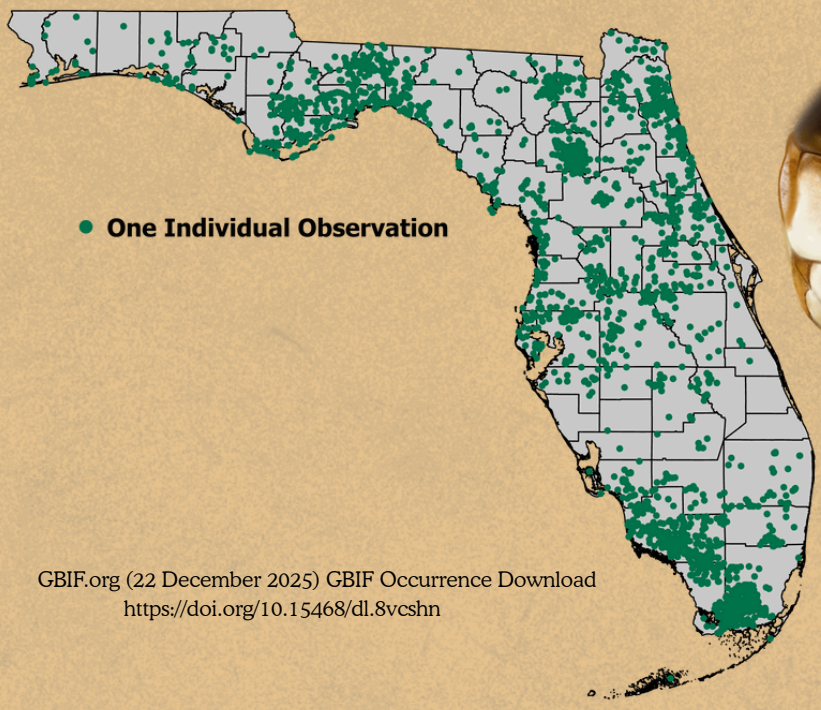
Agkistrodon conanti

VENOMOUS

- Semi-aquatic, found near freshwater including marshes, ponds, canals, and cypress swamps
- Dark band bordered by white on side of the face; adults are thick-bodied with dark banding pattern that may fade with age; blotched dark and cream central pattern
- Juveniles have similar patterns as adults, often with a bright, sulfur-yellow coloration on the tip of the tail
- Vertically elliptical pupils; heat-sensing pits near the nares
- When threatened, this snake will coil up and open its mouth to display white coloration
- Commonly mistaken for young Burmese python

Ventral

Dorsal



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Eastern Diamondback Rattlesnake

Native

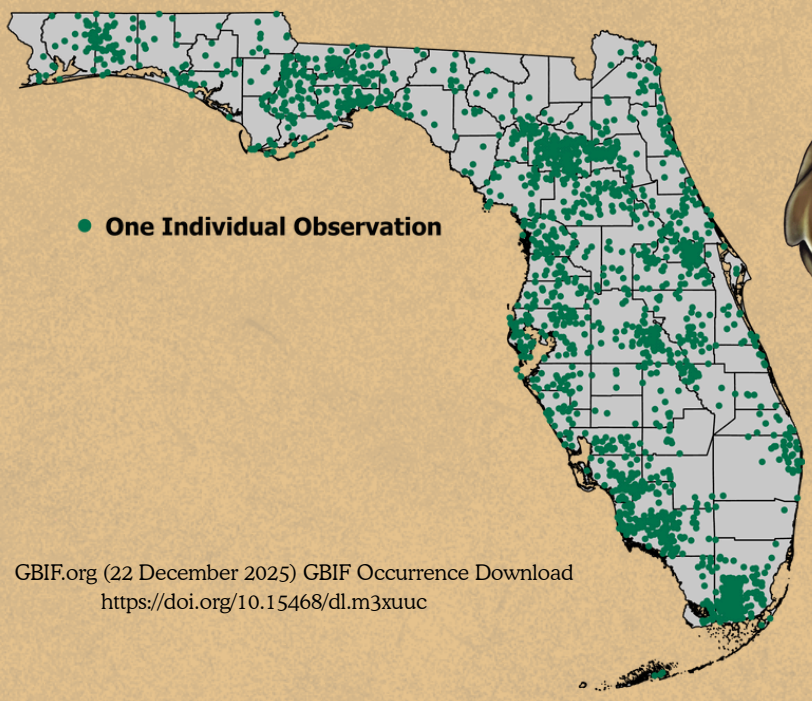
Crotalus adamanteus

VENOMOUS

- Terrestrial, often found in open upland areas such as scrub, saw palmetto prairie, and pine rockland habitats
- Distinct grayish-black diamond pattern with white border on dorsal surface; white and black banding on tail
- Large heavy-bodied pit viper, distinct rattle on tail, dark band on face; heat sensing pits near nares
- Juveniles share same pattern as adults

Key Characteristic: Large Rattle

Dorsal



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Dusky Pygmy Rattlesnake

Native

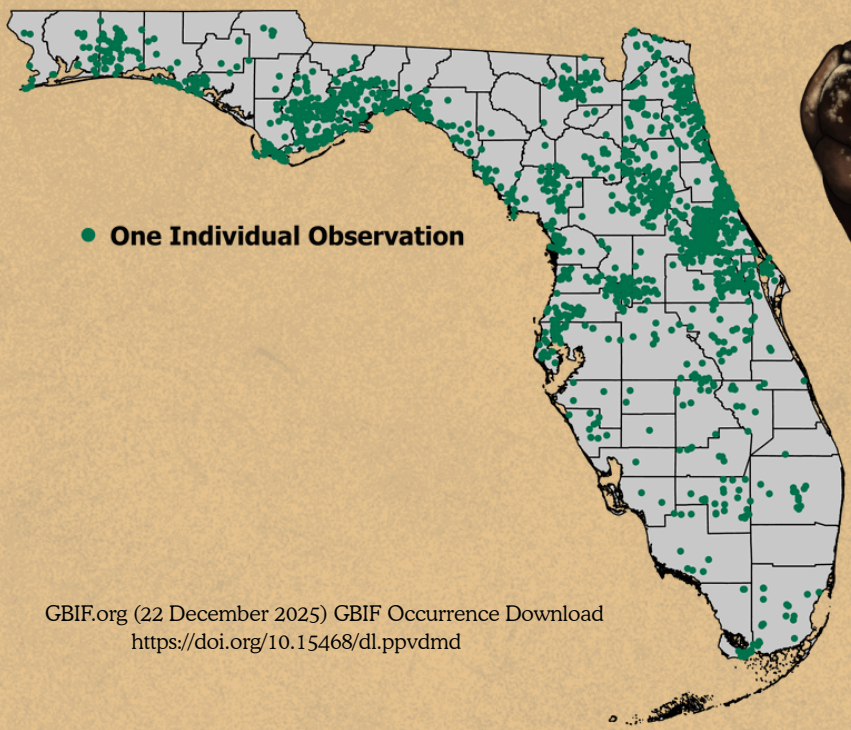
Sistrurus miliarius barbouri

VENOMOUS

- Found in a variety of wetland and upland habitats
- Smallest pit viper in Florida
- Range of colors from dark brown and black to ashy-gray
- Vertically elliptical pupils; heat-sensing pits near nares
- Prominent darker patches on the dorsal and lateral sides
- Much smaller size and rattle chain compared to Eastern diamondback rattlesnake; sound of rattle may be faint

Key Characteristic: Small Rattle

Dorsal



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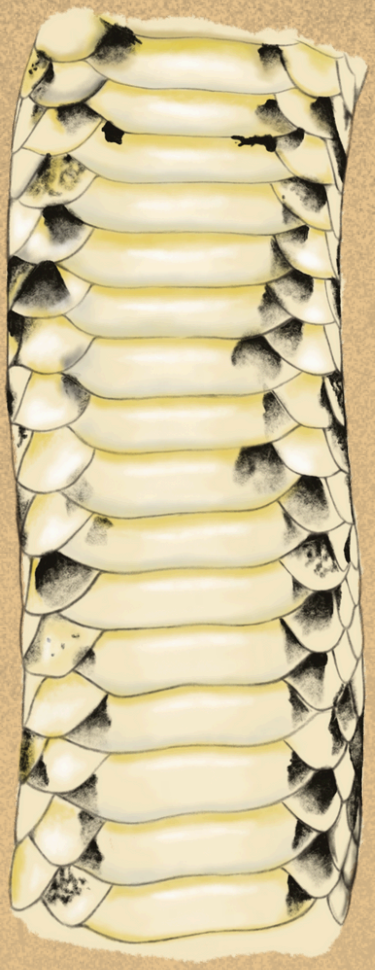
Burmese Python

INVASIVE

Python bivittatus

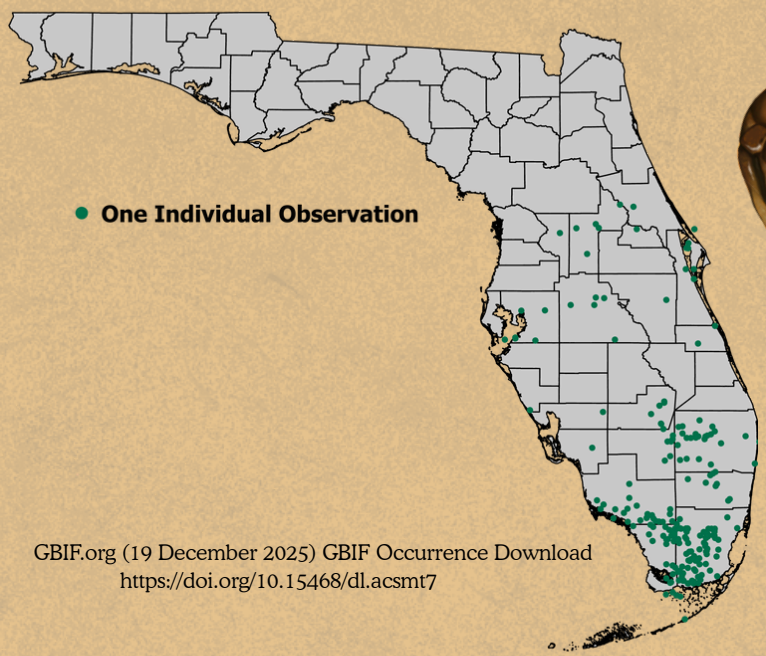
Non-venomous

- Semi-aquatic, native to Southeast Asia, pythons can be found in Florida along levees, in canals, freshwater marshes, cypress swamps, tree islands, and pine rockland habitats, in both natural and disturbed areas
- Giraffe-like dorsal pattern consisting of dark blotches outlined in black on a tan to tannish-yellow background coloration with a light unpatterened underbelly
- Dark “V” shaped mark on top of head; a white triangle is visible below eye on the side of the head; scales may appear shiny; multiple heat-sensing pits visible along nares
- Much larger than any of Florida’s native snakes as an adult; can grow upwards of 20 ft in length
- Juveniles have the same coloration as adults



Ventral

Dorsal



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Size Comparison - Juvenile Native Snake Species vs. Burmese Python

1 in. 12 in. 24 in.

Burmese Python: 14-22 inches

Eastern Diamondback Rattlesnake: 13-15 inches

Cornsnake: 8-14 inches

Juvenile Cottonmouth: 8-14 inches

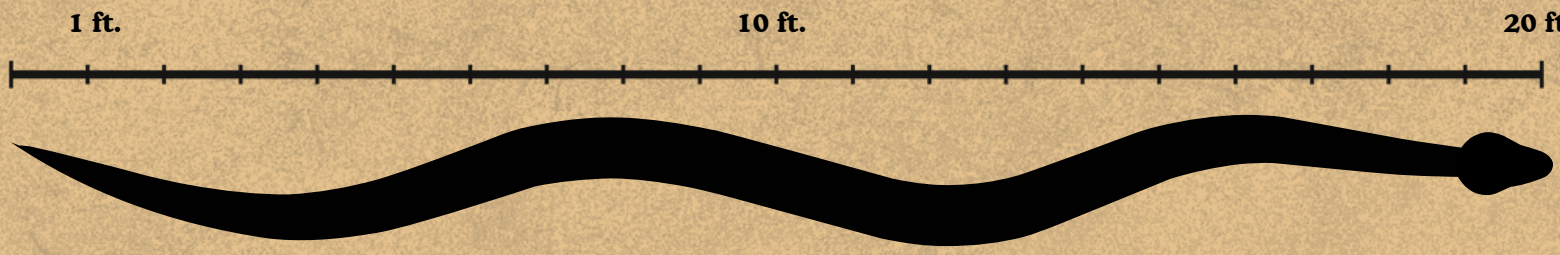
Juvenile Florida Kingsnake: 8-12 inches

Juvenile Black Racer: 8-12 inches

Juvenile Watersnake Species: 8-12 inches

Juvenile Duskey Pygmy Rattlesnake: 5-10 inches

Size Comparison - Adult Native Snake Species vs. Burmese Python



Burmese Python: 8-19 feet; max 20 feet

Eastern Diamondback Rattlesnake: 3-6 feet; max 7 feet

Cornsnake: avg. 3-4 feet; max. 6 feet

Florida Kingsnake: 3-4 feet; max 6 feet

Black Racer: 3-4 feet; max 6 feet

Watersnake species: 2-5 feet; max 6 feet

Cottonmouth: 2-4 feet; max 6 feet

Dusky Pygmy Rattlesnake: 16-20 inches; max 2 ½ feet

Two-Step Euthanasia Method

Step 1: Immediate loss of consciousness

Target the Brain:

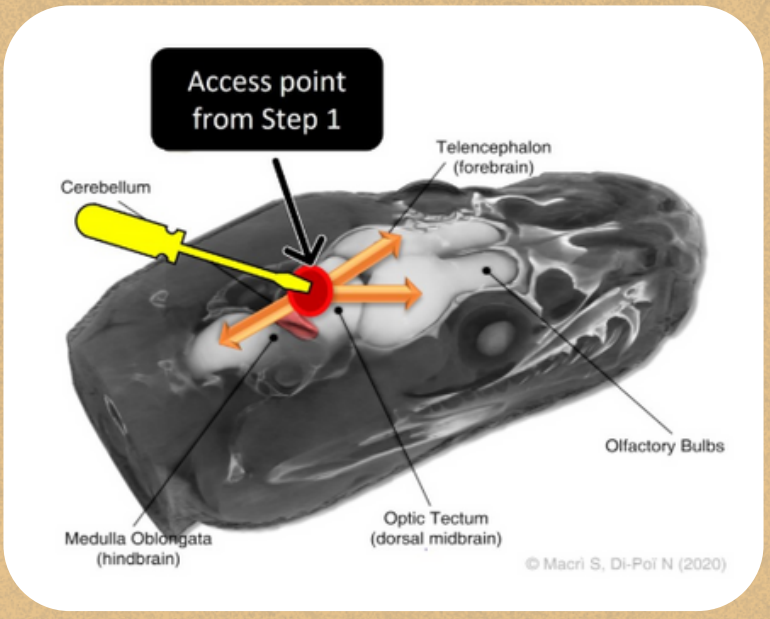
- Draw an imaginary line between each eye and the opposite jawbone
- The brain is located where the two lines intersect
- Apply the tool (e.g., **hammer, bolt gun, or pellet gun**) to the target area (brain) to achieve an immediate loss of consciousness

Step 2: Destroy the brain

Pithing is an additional technique meant to cause death by increasing substantial destruction of the brain and brainstem. **The goal of pithing is to render the cerebral cortex and brain stem nonfunctional**
Regardless of the tool you chose for Step 1, you must immediately complete the following process of pithing to substantially destroy the brain and humanely kill the python:

- **Insert a small rod (a rigid, metal, a tool like a screwdriver, spike, or pick of sufficient length) into the cranial cavity**

- **Use deliberate, multi-directional movement, move the rod forward along the left and right sides of the brain and then toward the brainstem, ensuring substantial destruction of the brain**



Euthanasia text and images courtesy of Florida Fish and Wildlife Conservation Commission

References and Additional Information

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Photos: Pierson Hill and the University of Florida

References:

Krysko, K. L., K. M. Enge, and P. E. Moler. 2019. Amphibians Reptiles of Florida. University of Florida Press, USA.

Report invasive species sightings

Contact the FWC Invasive Species Hotline at 1-888-IVEGOT1 (483- 4861) or by uploading your sighting to the IVEGOT1 app or on EDDMaps.org

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