

Eastern Indigo Snake Fact Sheet

Scientific Name: *Drymarchon couperi*

Other common names: blue indigo snake, gopher snake, blue bull snake



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Is the eastern indigo snake dangerous or venomous?

No. The eastern indigo snake is not venomous. It is harmless. Indigos seldom bite people, but they do bite their prey, enemies, or each other during aggressive competition between males. Although the indigo snake is harmless, because of its protected status this is a snake that you are not allowed to handle without a permit.

How do you identify the eastern indigo snake?

The most notable feature of the eastern indigo snake is the lustrous, glossy, iridescent, blue-black coloration of the head and body. The eastern indigo snake is the longest snake in North America and may reach a size of 8.5 ft (2.6 m) and a weight of 11 lbs (5 kg) for males; females are smaller (6.5 ft (2 m); 6.5 lbs (3 kg)). While the large size of the indigo snake is impressive most individuals seen are around 5-6.5 ft (1.5-2 m) in length. Snakes may be blue-black over the entire body or may have red, reddish-orange, or cream coloration on the chin, throat or cheeks. Scales of the body are smooth.

Other snakes with black coloration include the black pine snake, black racer, kingsnake, coachwhip, and eastern hognose. The black pine snake (*Pituophis melanoleucus lodingi*) is found only in extreme SW Alabama and adjacent SE Mississippi and is often entirely black, but a duller black. Black pine snakes may grow to be up to 6 ft (1.9 m) in length, but lengths of 4-5 ft (1.2-1.6 m) are more typical. Scales of the black pine snake have a keel down the center.

The black racer (*Coluber constrictor*) may reach a length of 6 ft (1.9 m) but is often shorter (4-5 ft), and has an entirely black body with a white chin. Black coloration of the racer tends to be a slaty-gray, dull black, and the body is thin. As with the indigo, body scales of the racer are smooth.

The eastern kingsnake (*Lampropeltis getula getula*) has an overall black coloration but is easily distinguished from the indigo snake by the yellow to cream-colored bands traversing the body. Kingsnakes may be large, up to 6 ft (2 m), but are generally 3-4 ft (0.9-1.2 m) in length, and have smooth scales. Entirely black kingsnakes are unknown.

Eastern coachwhip (*Masticophis flagellum*) rivals the indigo snake in length (maximum reported size of 8.5 ft (2.6 m)), but most seen are no larger than 5 ft. (1.5 m). Coachwhips are thinner than indigos and the body is bi-colored. The head, neck, and fore-quarter of the body is black but then grades into brown for the remaining three-quarters of the length of the snake.

Eastern hognose (*Heterodon platirhinos*) is a shorter, chunkier snake (20-33 in.; 51-84 cm) and some, but not all, individuals may be black. The hognose has keeled scales and an upturned snout.

Where do eastern indigo snakes live?

Historically, the eastern indigo snake lived throughout Florida, the coastal plain of southern Georgia, extreme south Alabama, and extreme southeast Mississippi. Today the indigo snake survives in peninsular Florida and southeast Georgia, persists in the Florida panhandle, but in low numbers, but has been extirpated from Alabama and Mississippi.

What do they eat?

Indigo snakes are known to feed mainly upon other snakes, turtles, mammals, frogs, birds, and lizards. Unusual food items, in comparison to that of other snakes, include small tortoises and all venomous snake species native to the Southeastern US.

How do they kill their prey?

Eastern indigo snake is not a constrictor therefore it overpowers its prey with its muscular jaws, and often larger size, consuming the prey head-first.

Do they get bitten when they eat rattlesnakes or other venomous snakes?

Indigo snakes may on occasion be bitten by the venomous snake on which it is feeding.

Are they immune to the venom?

Observations of biologists that have seen indigo snakes being bitten by eastern diamondback rattlesnakes suggest that the indigo snake is mostly immune to rattlesnake venom.

What is the habitat of the eastern indigo snake?

In peninsular Florida a wide variety of habitats are used as cold winter temperatures are unusual. In more northerly portions of the range the indigo snake occupies sandhills during the winter, using gopher tortoise burrows as a retreat from cold temperatures. During the warmer months snakes move to nearby wetlands.

How big is their territory?

Eastern indigo snake has a large territory based on studies conducted on male snakes. Range of southeastern Georgia snakes were found to be as large as 3,000 acres (1,600 ha), and one male was noted to move a distance of about 13 miles (22 km).

When do indigo snakes breed?

Eastern indigo snakes breed from October to February. During this time the snakes are found in sandhills and, although this is the peak of winter, indigo snakes are active at temperatures (50-60 F) that are typically too cool for other snake species.

When do indigo snakes lay eggs, where do they lay eggs?

Eggs are typically laid during May or June.

How many eggs are laid and how large are the eggs?

Females lay a single clutch of eggs of 4 to 12 eggs. Little information is known on nest sites but gopher tortoise burrows are suspected to be a favored nesting location. The eggs are large, nearly 3 in. (75 mm) in length, are elongate-oval, cream-colored, with a granular surface.

How large are hatchling indigo snakes?

Large eggs produce large hatchling snakes. Hatchling snakes are about 16 in. (40 cm) long, and about 1.5 oz. (40 g).

What do young snakes eat?

Diet of young snakes is very similar to that of the adult snakes; the small snakes simply eat smaller prey.

Why have they disappeared from Alabama?

Throughout the southeastern United States the eastern indigo snake has been associated with the longleaf pine ecosystem, and this ecosystem has experienced severe reductions and alterations. The loss, fragmentation, and alteration of the longleaf pine ecosystem are most likely the major underlying cause for the disappearance of the eastern indigo snake in Alabama. As the forests were converted, gopher tortoises were reduced, and the gopher tortoise burrows, upon which the indigo snakes depend, were reduced. Eastern indigo snakes were an unintended casualty of the persecution of the eastern diamondback rattlesnakes too. The now-outlawed practice of gassing gopher tortoise burrows to drive out rattlesnakes also killed or seriously debilitated many other organisms occupying the burrow, including the docile indigo snake.

The eastern indigo snake is protected. What does this mean?

Under the Endangered Species Act the US Fish and Wildlife Service has listed the eastern indigo snake as “threatened.” With this designation, individuals who harm or harass the indigo snake may be subject to fines and jail terms. The Alabama Department of Conservation and Natural Resources includes the eastern indigo snake on the non-game species regulation list, thus providing an additional level of protection.

What is the importance of the eastern indigo snake, and why release snakes into the wild?

The generic name *Drymarchon* means “forest ruler” and that is a fitting title for this snake. Being at the top of its food chain, a healthy population of eastern indigo snakes in a longleaf pine forest setting is an indication of an ecologically functional forest. The loss of the indigo snake from Alabama and other areas is the loss of a significant part of the biodiversity of the forest. Longleaf pine forest restoration is underway in many localities across southern Alabama, thus establishing a foundation for the reintroduction of the eastern indigo snake. To return the eastern indigo snake to the south Alabama landscape is to restore a piece of the natural history of the state. Releasing snakes into the wild is a step toward establishing populations, or augmenting populations and addressing recovery objectives within the recovery plan of the USFWS. Once recovery objectives have been met, the eastern indigo snake would be considered recovered and be removed from the list of threatened species.



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For more information or
to report a sighting contact:

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