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## THE EASTERN INDIGO SNAKE: A THREATENED SPECIES

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The eastern indigo snake (*Drymarchon corais couperi*) is the largest nonvenomous snake in North America. Individuals up to 104 inches (263 centimeters) have been measured. Unlike the color indigo or indigo buntings, this snake is much more black than blue. It has smooth, shiny scales and a reddish chin and throat. The young are lighter in color and have a faint banded pattern.

### DISTRIBUTION

The indigo snake is widely distributed throughout the American tropics; however, the eastern subspecies is restricted to the southeastern United States and is completely isolated from other subspecies populations. It occurs in southeastern Georgia and throughout peninsular Florida.

### HABITAT

The eastern indigo may be found in a variety of habitats throughout most of Florida. It occurs in xeric sandhills in the panhandle, and in central and northern portions of the Florida peninsula. However, it is not restricted to dry habitats. The indigo is fairly common, for example, in cabbage palm hammocks in east-central Florida and in hydric hardwood hammocks along the west central coast. It also frequents areas around ponds.

In drier habitats, it often seeks sheltered refuges such as gopher tortoise and armadillo burrows, and stump holes. These dens may be used for egg laying, shedding, and for providing protection from dehydration and temperature extremes.

### DIET

Indigo snakes are not picky feeders. Like all other snakes, they are carnivorous (meat-eaters). They will eat almost any animal up to about squirrel size. Indigos feed especially heavily on frogs and snakes. They even can eat rattlesnakes and other pit vipers because they are immune to their venom. Prey encountered in their dens are especially easy victims.

The indigo snake's large size and strong jaws enable it to eat its prey live. They do not kill their quarry by constriction before eating it as do many other large snakes.

The Cooperative Urban Wildlife Program is a cooperative effort between the Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida and Florida Game and Fresh Water Fish Commission's Nongame Wildlife Program.

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## REPRODUCTION

Indigo snakes mate in fall and early winter. They lay from 5 to 12 white eggs in May or June. Hatching occurs in August and September. Young indigos may approach 2 feet (30.4 to 60.9 centimeters) long when they hatch.

## CAUSES OF ENDANGERMENT

The eastern indigo snake has been classified as a threatened species by the Florida Game and Fresh Water Fish Commission since 1971 and by the U. S. Fish and Wildlife Service (USFWS) since 1978. The main reason for its decline is habitat loss. Indigos need relatively large areas of undeveloped land. In 1 Commission study, spring/summer activity ranges of 4 male snakes averaged 470 acres (190 hectares); 1 individual used a territory of 1,400 acres (560 hectares). As habitats become fragmented by roads, indigos become increasingly vulnerable to highway mortality as they travel through their large territories. Even in low-density developments, indigo snakes often fall victim to domestic dogs. Commercial collecting, gassing of gopher tortoise burrows, killing by uninformed persons, and chemicals also have taken their toll.

Some researchers think that insecticide poisoning may be one of the leading causes of snake mortality in agricultural areas. Reptiles have been found to have a greater sensitivity than birds and mammals to some pesticides. High levels of dieldrin, chlordane, mirex, PCBs, and heptachlor epoxide, and other pesticides were found in fat reserves of 5 indigos found dead in Georgia. The actual cause of death was not determined, as toxicity depends on many factors such as the animal's physiological state, age, and position in the food chain.

## WHAT YOU CAN DO

Here are some ways you can help the eastern indigo snake.

- learn more about the indigo and their habitat by reading the references listed below.
- ask your county commissioners and planners how they are providing sufficient habitat to keep the indigo from becoming extinct within your county.
- write or call your legislators and express your support for habitat protection and chemical use measures that will help the indigo snake.
- inform others, especially landowners of large tracts, about the need to protect the indigo.
- report people who violate the laws that protect indigos.

## LEGAL ASPECTS

The use of burrow fumigants such as gasoline is illegal in Florida. Indigos may not be kept as pets or sold without special permits from the Florida Game and Fresh Water Fish Commission and the U.S. Fish and Wildlife Service.

## SELECTED REFERENCES

- Ashton, R. E., Jr. and P. S. Ashton. 1988. Handbook of reptiles and amphibians of Florida. Part One: The snakes. Windward Publishing, Miami. 176 pp.
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