

Effects of Land Conversion Projects on the Eastern Indigo Snake in South Florida

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The effects of land conversion projects on the eastern indigo snake are presently evaluated under section 7 of the Endangered Species Act of 1973, as amended (Act) (87 Stat. 884; 16 U.S.C. 1531 *et seq.*) based on a limited number of studies that calculate densities using acres of suitable habitat in order to generate “take” estimates. In addition, there is a lack of studies to determine the fate of the species after “take” is granted. Considering the overall scarcity of data, a small-scale pilot project is proposed using radio telemetry to better track the extent of “take”, or more specifically, the survivability of eastern indigo snakes on land conversion projects. The work described in this proposal will help determine the fate of eastern indigo snakes during and immediately after construction of large-scale land conversion projects planned across south Florida.



*Eastern Indigo Snake caught at
Babcock Ranch, Florida*

The goal of this monitoring is to collect information to gain an understanding of the movements of eastern indigo snakes on lands being developed for residential or commercial developments, agricultural conversions, or wetland restoration. The objectives are to: 1) quantify indigo snake movement patterns and survivability within a large-scale land conversion project during and immediately after construction; 2) determine movements off site; 3) determine densities and estimates of “take”; and 4) undertake the development of a reliable method to census eastern indigo snakes in a variety of native and non-native habitats.

Radio telemetry has been used in a few studies; the information collected from this pilot project will be compared to existing data collected by previous research on eastern indigo snakes. Collaboration with researchers conducting studies within south Florida will also be sought.

This study will provide information on eastern indigo snakes that is not presently known. Information collected on this species will be used to support section 7 consultation to refine appropriate recovery actions. In addition, this pilot project will also provide the basis for developing a larger study to address these questions more completely.