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Eastern Indigo Snake Preys on Juvenile Florida Scrub Jay

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Ann B. Swanbeck, Division of Fish and Wildlife, 101 Estate Nazareth, St. Thomas, U. S. Virgin Islands 00802 and Chris F. Seiler, Box 39 Red Hook, St. Thomas, U. S. Virgin Islands 00802.

Florida Field Naturalist 15: 52-53, 1987.

Eastern indigo snake preys on juvenile Florida Scrub Jay.—The demographic characteristics of few avian species are as well known as those of the Florida Scrub Jay (*Aphelocoma c. coerulescens*). Since 1969, this species has been the focus of an intensive ecological and behavioral study at Archbold Biological Station, 13 km south of Lake Placid in Highlands County, Florida (Woolfenden and Fitzpatrick 1984). Although predation has been established as the major cause of mortality on eggs, nestlings, juveniles and adults (Woolfenden and Fitzpatrick 1984), predation on Scrub Jays has been observed directly in only a few instances (e.g. Webber 1980). Thus, the identity of specific predators remains poorly known. Here, I report an incident of predation on a juvenile Scrub Jay by an eastern indigo snake (*Drymarchon corais couperi*).

At 1820 h on 30 August 1986, I heard a sudden outburst of vigorous scolding from an area of oak scrub adjacent to Archbold Biological Station. About eight Scrub Jays, four Rufous-sided Towhees (*Pipilo erythrophthalmus*), and a single Blue-gray Gnatcatcher (*Poliophtila caerulea*) were scolding an object at the base of a dense patch of oaks (*Quercus inopina*) 1.5-2 m in height. On closer inspection at 1825, I found a freshly dead juvenile Scrub Jay in the jaws of an eastern indigo snake.

When first discovered the snake was grasping the jay around its back and lower neck. The breast feathers were matted and bloodied, however, suggesting that the snake initially struck the jay's breast. The head and other parts of the jay's body appeared to be undamaged. Although the jay was unbanded, it was clearly a juvenile in its first prebasic molt (Bancroft and Woolfenden 1982). By 1830 the snake had shifted its jaws to the back of the jay's head and initiated swallowing movements. The jay was completely swallowed by 1901, at which time I captured the snake and transported it to the headquarters of Archbold Biological Station, where it was examined on 3 September by James N. Layne. The snake was an adult female weighing 634 g. Its total length was 142.7 cm and its snout-vent length was 122.3 cm.

The diet of the eastern indigo snake is not well known. Although captives consume a variety of vertebrate prey, including amphibians, reptiles, birds and mammals (Carson 1945), the diet of free living indigo snakes appears to consist mainly of reptiles, especially other snakes. Avian food items are reported only infrequently (Keegan 1944, Babis 1949, Moulis 1976, Steiner et al. 1983).

Based on the status of its first prebasic molt relative to that of banded juveniles of known age, the Scrub Jay captured by the snake probably hatched in late April or early May 1986. Thus, the jay was about four months old at the time of its capture. Juvenile jays of this age have fully developed flight and tail feathers and are strong, capable fliers. Because no unbanded juvenile jays were known to be resident in the territories adjacent to the capture site, the victim was probably a non-resident wandering juvenile. Juvenile jays wander from their natal territories frequently during late August, a time that coincides with a period of greatly increased juvenile mortality (Woolfenden and Fitzpatrick 1984).

Although Florida Scrub Jays may be stalked by more active predatory snakes such as the eastern coachwhip (*Masticophis f. flagellum*; Webber 1980), it seems unlikely that a strong flying jay could be stalked successfully by a non-cryptically colored, slow moving eastern indigo snake. I suspect that the jay was unable to detect the snake in the dense foliage, leaf litter, shade and sun flecks of the capture site, and simply approached too close while foraging.

I thank James N. Layne for providing data on the snake and allowing me access to his library. The staff of Archbold Biological Station offered generous assistance and use of station facilities. G. Thomas Bancroft, James N. Layne, James A. Rodgers, Glen E. Woolfenden and an anonymous reviewer provided helpful comments on the manuscript.

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Ronald L. Mumme, Department of Biology, Memphis State University, Memphis, Tennessee 38152. (Present address: Archbold Biological Station, P.O. Box 2057, Lake Placid, Florida 33852.)

Florida Field Naturalist 15: 53-54, 1987.

A reconsideration of the Florida bird records of H. L. Ferguson and J. B. Ellis.—A compiler or reviewer of regional records, although he may concentrate on recent ones, should also be alert to the possibility that older records, even though previously published and presumably carefully reviewed, may yet be invalid. Previous publications have, for example, discounted several records of H. H. Bailey, but other doubtful records seemingly have not been questioned by reviewers. This appears to be true of records attributed by Howell (1932) and subsequent writers to H. L. Ferguson and J. B. Ellis during the years 1912-20.

Because Ferguson and Ellis claimed to have collected many of the species involved, and because I have not encountered such specimens in visits to museums with the largest Florida collections, a request for information about their specimens was submitted to the *Ornithological Newsletter*. Replies came from Eleanor H. Stickney, Peabody Museum of Natural History, Yale University (Ferguson), and Thomas C. Erdman, Richter Museum of Natural History, University of Wisconsin at Green Bay (Ellis). Neither of these museums contained specimens of Ferguson or Ellis collected in Florida, although the Richter Museum had nine egg sets collected by Ellis in Florida. Mrs. Stickney later obtained the address of Charles Ferguson, H. L. Ferguson's son, who told me of the Henry L. Ferguson Museum on Fishers Island, New York. However, the curator of that museum, Edwin H. Horning, was unable to find any of Ferguson's Florida specimens there. For these reasons, it seems in order to evaluate these Florida records more carefully, especially in the light of some 70 additional years of Florida ornithology. As Ferguson's records seem not to have been published elsewhere, the following quotations are from Howell (1932).

museum or private collection, this pair of birds will multiply." Yet he stated in the same note that he expected "to get a clutch of their eggs."

In order to amass such an assemblage of remarkable records in a single fall as Ellis claimed in 1915 an observer would have to be very knowledgeable *and* lucky. Just how reliable an observer was Ellis? A few comments in his first note (Ellis 1915) are revealing: "Number of Vireos and Warblers can't identify without killing them 9-25-15" (*sic*); "Humming Bird nesting 10-7-15" (note date); "a few Sparrows could not identify 1-11-15" (*sic*); "I have seen two Sparrows, several Vireos and Warblers and three Juncos not described in any literature I have." The last statement does not tell us whether all three groups, or just the juncos, were "not described . . ." It seems obvious that very little credence should be given to the records cited above.

I thank William B. Robertson, Jr., for mentioning some of these old records to me, Eleanor Stickney and Thomas Erdman for information about holdings in their museums, and Charles Ferguson and Edwin H. Horning.

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Henry M. Stevenson, 950 Briarcliff Road, Tallahassee, Florida 32308.

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INFORMATION FOR CONTRIBUTORS

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