

DEDICATION

Emulating the Father of Snake Ecology

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Photographs by the author.

As a high school senior from southern Illinois, I obtained a copy of Henry Fitch's classic *Autecology of the Copperhead*. Stunned and excited to find so much life history information about one of my favorite snakes, I devoured the book. Fitch's Copperhead book was foremost among the works that stoked my early naturalist fires and always stayed close — even riding in the glove box of my late 1970s VW Beetle on herping sojourns to remote bluffs and swamps in southern Illinois.

For the past 15 years, I've studied one of North America's most impressive serpents — the Eastern Indigo Snake (*Drymarchon couperi*) — focusing on long-term mark-recapture efforts similar to Dr. Fitch's work in eastern Kansas. Attired in an old ball cap and charcoal-stained (from a recent prescribed fire) snake boots, jumbo pillowcases looped in my belt, I like to think of myself as a bit like Dr. Fitch as I embark on a long sandhill

hike to search for indigos basking at tortoise burrows. Anticipating a 3-hour walk, I travel light, carrying a compass, mirror, thermometer (for cloacal and environmental temperatures), small field notebook, and some ribbons of flagging tape. The persistent and indefatigable snake-hunter (i.e., Fitch-like!) who visits many dozens — or hundreds — of burrows on a mild winter day will sometimes be rewarded with the sight of a bluish-black, large-scaled coil partly concealed by a Saw Palmetto frond or clump of Golden Wiregrass.

What can long-term field studies tell us about the ecology of snakes, a notably slippery and difficult group? As Dr. Fitch's excellent work demonstrated, they offer a glimpse into the lives of individuals. Our mark-recapture research has provided novel and interesting data relating to Eastern Indigo Snake survival, size, growth rates, and site fidelity. From many



An adult female Eastern Indigo Snake from southern Georgia.

recaptures of individuals marked in previous years, we determined that smaller snakes grow fast, reaching 1.2–1.5 m by their second winter, and attaining sexual maturity in 2–3 years. In undisturbed landscapes far from roads, Eastern Indigos commonly live 8 to >12 years.



The author with three adult Eastern Indigo Snakes found on the same day at one of his south Georgia study sites.



As part of this mark-recapture population monitoring effort, Eastern Indigo Snakes are sexed, measured, weighed, and uniquely marked with PIT tags.

When I processed adult indigos for the first time I was nervous; they are, after all, federally protected under the Endangered Species Act, an imperiled animal that occurs in low numbers even where common. I was shaking the first few times I plunged the 12-gauge needle to insert a PIT tag under the skin of a pregnant female, clipped ventral scales for a genetic study, or struggled with a recalcitrant snake that just did not want to be enclosed in a pillowcase for weighing. “Hang in there, man, you can do this,” I would think to myself, remembering that Dr. Fitch had painstakingly scale-clipped thousands and thousands of small delicate snakes (shoot, many thousands of Ringnecks [*Diadophis punctatus*] alone!).

Dr. Fitch’s singular energy, dedication, focus, and the veritable mountain of valuable natural history data that he contributed have been and always will be a source of inspiration for me and countless others. I return frequently to southern Illinois, typically timing my trips with the spring bloom of wildflowers and the April emergence of serpents. As I bound upslope toward a stony glade sprinkled with new color, nosing for serpents and lizards under and among the lichen-marked stones, I am always thinking of him.



Adult Eastern Diamondback Rattlesnakes (*Crotalus adamanteus*), like Eastern Indigo Snakes, frequently seek shelter in Gopher Tortoise burrows during the winter.



The venerable Gopher Tortoise is the primary host for the largest tick in North America, the Gopher Tortoise Tick (*Amblyomma tuberculatum*).