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### A Fishing Technique for Collecting the Introduced Knight Anole (*Anolis equestris*) in Southern Florida

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Biologists have created and modified various techniques for collecting herpetofauna. Many sampling methods have been listed by Patterson (1998), while others include drift fencing (O'Hare and Dalrymple, 1997; Enge, 1997), hand-held wire hooks (Bedford et al., 1995), electrofishing (Hall, 1982), fishing rods without hooks (Durden et al., 1995), and coat hangers with baited, barbless fishing hooks (Camp and Lovell, 1989). Common problems with almost any technique include inefficiency, high cost, labor intensity, habitat disturbance, stress to captured individuals, and failure to collect adequate sample sizes. Herein I describe a very effective new method for capturing the knight anole, *Anolis equestris* Merrem.

The knight anole is a large (snout-vent length in males up to 188 mm; Schwartz and Henderson, 1991), conspicuous and wary Cuban species that is frequently observed on tree trunks in urban areas of Miami, Dade County (King and Krakauer, 1966; Wilson and Porras, 1983). They feed on fruits, leaves, insects, small frogs, other anoles, rodents, and birds (Dalrymple, 1980; Wilson and Porras, 1983). When approached, *A. equestris* quickly retreats far into the canopy, making it extremely difficult to capture.

During the summers of 1993-1995, I modified the technique of Camp and Lovell (1989) until I successfully captured almost 95 % of observed *A. equestris*. I used a 2 m G. Loomis fishing rod with a Penn® 420 SS reel and Ande® 2 kg test monofilament line. I tied a gold, # 8 Eagle Claw® Aberdeen wire hook to the thin monofilament. The barb on the small hook was crimped to render it "barbless." For bait I collected dead dragonflies from radiators of parked cars.

When approached, *A. equestris* retreated up the tree and typically face downward. The baited hook was positioned approximately 15 cm from the rod tip to successfully maneuver the bait near the tree branch closest to the anole. Immediately after observing the dangling dragonfly, lizards would descend and grab the bait. By drawing the tip of the rod down with a steady motion, I could pull the anoles out of tree. The lizards are quickly restrained by hand, and the small, barbless hooks easily slip free. On occasion the hook was not set, but when another dragonfly was presented it was quickly accepted. I have noticed no negative effects on *A. equestris* collected using this method, and I have caught some individuals three or more times. There is no short or long-term aversion or avoidance response to this technique.

My collecting technique has many advantages for capturing *A. equestris*: 1. it is inexpensive (any type of fishing rod will work); 2. it is not physically demanding; 3. it is efficient (large samples can be obtained easily); 4. all size classes can be obtained; 5. anoles readily descend from the high canopy to feed on the bait; 6. one has several opportunities to capture one individual; 7. there is no significant habitat disturbance except for occasional small branches being broken on frequently inhabited introduced plants such as the umbrella tree (*Schefflera actinophylla*) and weeping fig (*Ficus benjamina*); 8. the bait is readily available; 9. individuals are not harmed (many have been recaptured).

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#### LITERATURE CITED

- Bedford, G.S., K. Christian, and B. Barrette. 1995. A method for catching lizards in trees and rock crevices. *Herpetol. Rev.* 26:21-22.
- Camp, C.D., and D.G. Lovell. 1989. Fishing for "spring lizards:" a technique for collecting blackbelly salamanders. *Herpetol. Rev.* 20:47.
- Dalrymple, G.H. 1980. Comments on the density and diet of a giant anole, *Anolis equestris*. *J. Herpetol.* 14:412-415.
- Durden, L.A., E.M. Dotson, and G.N. Vogel. 1995. Two efficient techniques for catching skinks. *Herpetol. Rev.* 26:137.
- Enge, K.M. 1997. A standardized protocol for drift-fence surveys. Florida Game and Fresh Water Fish Comm. Tech. Rep. No. 14. Tallahassee, FL. vi + 69 pp.
- Hall, R.J. 1982. Dusky salamanders (mountains), p. 11-12. *In* D.E. Davis (ed.), *CRC Handbook of Census Methods for Terrestrial Vertebrates*. CRC Press, Boca Raton, FL.
- King, W., and T. Krakauer. 1966. The exotic herpetofauna of southeast Florida. *Quart. J. Acad. Sci.* 29: 144-154.
- O'Hare, N.K., and G.H. Dalrymple. 1997. Wildlife in southern Everglades wetlands invaded by *Melaleuca* (*Melaleuca quinquenervia*). *Bull. Florida Mus. Nat. Hist.* 41:1-68.
- Patterson, A. 1998. A new capture technique for arboreal lizards. *Herpetol. Rev.* 29:159.
- Schwartz, A., and R.W. Henderson. 1991. *Amphibians and Reptiles of the West Indies: Descriptions, Distributions, and Natural History*. Univ. Florida Press, Gainesville.
- Wilson, L.D., and L. Porras. 1983. The ecological impact of man on the south Florida herpetofauna. *Univ. Kansas Mus. Nat. Hist. Spec. Publ.* (9):vi + 89 pp.