Zootaxa 1193: 1–39 (2006)
www.mapress.com/zootaxa/

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

1193

Morphological systematics of kingsnakes, *Lampropeltis getula* complex (Serpentes: Colubridae), in the eastern United States

KENNETH L. KRYSKO[1] & WALTER S. JUDD[2]

[1]*Florida Museum of Natural History, Division of Herpetology, P.O. Box 117800, University of Florida, Gainesville, Florida 32611 U.S.A.*
[2]*Florida Museum of Natural History, Herbarium, P.O. Box 117800, University of Florida, Gainesville, Florida 32611 U.S.A*

Abstract

Kingsnakes of the *Lampropeltis getula* complex range throughout much of North America. Using morphology and color pattern, Blaney made the last revision of this species complex nearly 30 years ago and recognized seven subspecies. Furthermore, Blaney hypothesized that populations in the eastern United States consist of two closely related taxa, *L. g. getula* & *L. g. floridana*, whichare morphologically divergent from all other subspecies. At the same time, Means hypothesized that an undescribed taxon existed in the Eastern Apalachicola Lowlands in the Florida panhandle. To test these hypotheses as well as help better understand phylogenetic relationships, we examine morphological characters and color pattern of *L. getula* throughout its range, particularly those populations in the eastern United States, and make comparisons to molecular data. We find that populations in the eastern United States represent a well-supported monophyletic group. Although some infraspecific clades (i.e., subspecies) within the *L. getula* complex may be weakly supported by homoplasious characters, at least one synapomorphy supports the monophyly of each group, including the two currently recognized subspecies in the eastern United States and the unnamed entity in the Eastern Apalachicola Lowlands, described herein as *L. g. meansi*. Justification for naming this natural clade at the infraspecific level (rather than species level) is provided. Furthermore, this panhandle clade is diagnosed by more synapomorphies than any other currently recognized taxon of *L. getula*, and overlaps in distribution with numerous other endemic plants and animals. All molecular analyses produced very similar tree topologies as our morphological dataset.

Key words: Apalachicola, Florida, morphology, phylogenetics, reptile, snake

Introduction

Kingsnakes of the *Lampropeltis getula* complex (Linnaeus) range throughout much of temperate and subtropical North America, from Oregon to the Mexican Plateau in the west

Accepted by S. Carranza: 24 Jan. 2006; published: 4 May 2006