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NEW RECORDS FOR THE
MOLE SNAKE, *LAMPROPELTIS CALLIGASTER*,
IN PENINSULAR FLORIDA

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ABSTRACT: *Two additional specimens of the mole snake, Lampropeltis calligaster, and reports of 2 other individuals confirm the occurrence of this wide-ranging species in peninsular Florida. Circumstances of capture and meristic data from the available specimens indicate that these records represent native populations.*

THE MOLE SNAKE, *Lampropeltis calligaster rhombomaculata*, is known from only a few records in Florida, and its distribution in the state is not well-established. Carr (1940) reported a specimen in the Carnegie Museum (CM 1952) collected in 1899 from the "St. Johns River", presumably northeast Florida, and another in the University of Michigan collection (UM 77481) from Leesburg, Lake County, in the central peninsula. Carr and Goin (1955) gave the range as northern Florida southward in the peninsula to Lake County. The range map of Wright and Wright (1957) shows the species as occurring only in the panhandle, although northcentral Florida is included in the narrative range description. Conant (1975) mapped the range as including extreme

northeast Florida but mentioned only the panhandle in the description. The range was stated by Stevenson (1976) as including northwestern Florida east to Liberty County. Price (1977) indicated that the species is found throughout the panhandle and northern peninsular Florida as far south as Alachua or Marion counties. In addition, he cited 2 specimens in the Field Museum of Natural History collection (FMNH 48265 and 48266) collected in Okeechobee County, Florida, in May 1942 by Reid Paulk and suggested that these specimens might represent an undescribed subspecies. Means (1978) cited records from Bay, Calhoun, Liberty, and Walton counties in the panhandle and included the isolated Lake County record in his distribution map. Blaney (1979), however, questioned the Lake County record. Most recently, Ashton and Ashton (1981) listed museum specimens from Bay, Calhoun, Gulf, and Madison counties but did not cite either the northeast Florida, Lake County, or Okeechobee records. Thus, the occurrence of *Lampropeltis calligaster* in the panhandle of Florida from Liberty County west is well-documented, whereas its status in the peninsula is less certain. It is now possible to confirm the occurrence of native populations in peninsular Florida.

Two specimens of *Lampropeltis calligaster* have been collected and 2 other individuals reported in peninsular Florida in recent years. One specimen was collected on Merritt Island, Brevard County, by Scott Maness on 8 May 1980. The snake was found dead on State Road 402 near Oak Hammock Trail, Merritt Island National Wildlife Refuge. This specimen, now in the Florida State Museum (UF 48182), is a male with a total length of 735 mm (640 mm SVL). Scale rows are 21, 21, 19. It has a total of 75 dorsal blotches, 61 on the body and 14 on the tail. The blotches are roughly rectangular, $1\frac{1}{2}$ to $2\frac{1}{2}$ scales long, and about 8 scales wide. There are 8 upper labials, with numbers 4 and 5 entering the orbits (both sides), and 9 lower labials. Ventrals and subcaudals number 213 and 46, respectively. The ground color after preservation is gray-brown; the dorsal blotches are clearly outlined in black middorsally but less distinctly outlined laterally. The elongate blotches on the neck extend from the parietals across 13 rows of dorsal scales.

The second specimen was collected on 16 April 1985 by T. J. Walsh in Okeechobee County in the Basswood Estates subdivision (section 5, range 35E, township 37S) 4.8 km NW of the junction of U.S. 441 and State Route 70 in the city of Okeechobee. The snake was captured at 1730 EST on the grassy shoulder of a paved road after it was observed crawling out of a shallow ditch that contained a small amount of water from a recent rain. The weather was clear and air temperature was 26°C. The presettlement vegetation of the area was probably native prairie with interspersed marshes and cabbage palm (*Sabal palmetto*)—live oak (*Quercus virginiana*) hammocks. The snake was found in a part of the subdivision with few houses and extensive grassy fields with scattered trees and shrubs. The habitats in the immediate vicinity of the capture site included a low, moist vacant lot with tall grass and clumps of wax myrtle (*Myrica cerifera*), Brazilian pepper (*Schinus terebinthifolius*), and cabbage palms and a house lot with mowed lawn and shrubbery. Means (1978) noted that specimens in the panhandle of Florida have been collected on roads

at dusk during late spring, early summer, and November in drier pine woodlands, early stage regenerating pine stands, and old-field habitats.

The specimen was a female with a total length of 660 mm and weight of 80 g. It had 21 dorsal scale rows, middorsal blotches with slightly convex to straight (but not concave) anterior and posterior borders, and upper lateral spots that tended to be vertically elongate. The ground color of the dorsum was gray. The middorsal blotches, lateral blotches, and the elongate blotches on the neck were dark chocolate-brown margined with black and outlined with a light tan border about the same width as the black. Individual scales in the spaces between the blotches were narrowly margined with light tan. Most of the middorsal blotches were about 2 scales long and 9-10 scales wide. The elongate blotches on the neck originated on the parietals and extended posteriorly over 12 scale rows. The expanded middle portion covered 4 scale rows and the narrower posterior portion, 2 rows. A dark stripe extended along the upper edge of the upper labials from slightly anterior to the eye to the rear edge of the gape. These descriptive notes are based on examination of the live specimen on 23 April, color slides made on that date, and portions of a shed skin preserved in the Florida State Museum (UF 61053).

The snake was kept for observation at the Walsh home until 15 May, when it was discovered missing from its cage in an unlocked garage attached to the house. Evidence indicated that it had been stolen during the day while the family was away. As so little is known about the life history and behavior of the species in the southeast, it seems worthwhile to record observations made on the snake in captivity. It was housed in a glass-fronted wooden cage (43 cm

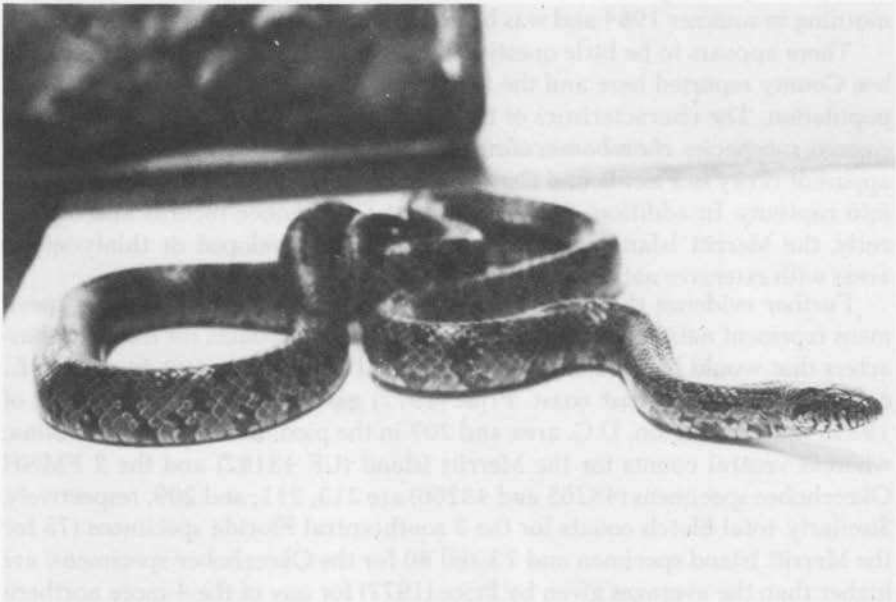


FIG. 1. Mole Snake, *Lampropeltis calligaster rhombomaculata*, captured in Okeechobee County, Florida, 16 April 1985. Photograph by Zed Postles.

high \times 77 cm long \times 43 cm wide) with an 8-cm layer of sand on the floor. Water was continuously supplied in a small plastic dish, although the snake was never observed drinking. During the day, the snake spent most of the time resting under a plastic fern plant placed in the corner of the cage. It occasionally retreated into a nearby short tunnel it had dug or coiled around a small L-shaped piece of dead wood. At night it usually lay on the surface of the sand stretched out along the front of the cage against the glass. On 2 occasions it was found lying on the top edge of the cage under the lid, indicating some tendency to climb. It ate an adult green anole, *Anolis carolinensis*, 2 days after capture and on 13 May attempted to eat an adult white mouse. It seized the mouse by the head and constricted it by wrapping coils around its body. After the mouse was dead, it tried to swallow it head first, but the mouse apparently was too large for it to handle and the snake eventually abandoned it. The snake shed on 14 May, using rocks and pieces of wood to aid removal of the skin. Some of the pieces of the skin were found in the tunnel mentioned above.

Paul Williams informed us (pers. comm.) of 2 additional records of mole snakes from the Okeechobee area. He is the owner of a garden and pet supply store in Okeechobee and has a good knowledge of Florida snakes. In spring 1984, he captured a specimen about 900 mm total length in the vicinity of the North Elementary School in Okeechobee, approximately 3 km from the site at which the specimen described above was collected. The snake was being harassed by a mockingbird (*Mimus polyglottos*) as it was crossing a paved road about 0730 EST in a residential area surrounded by extensive open pastureland. The second specimen, about 460 mm total length, was found crawling on a paved parking lot in front of a convenience store in town in the early morning in summer 1984 and was brought to him for identification.

There appears to be little question that the 3 *L. calligaster* from Okeechobee County reported here and the 2 cited by Price (1977) are from a natural population. The characteristics of the Walsh specimen agree with those of the eastern subspecies *rhombomaculata*, which, because of its secretiveness and apparent rarity in Florida and elsewhere in the southeast, seldom finds its way into captivity. In addition, 2 of the 3 recent Okeechobee records and, apparently, the Merritt Island specimen came from undeveloped or thinly-settled areas with extensive natural habitat.

Further evidence that the Merritt Island and southcentral Florida specimens represent native populations is that they exhibit counts for meristic characters that would be predicted based on clinal variation known to exist in *L. calligaster* along the east coast. Price (1977) gave average ventral counts of 198 in the Washington, D.C. area and 207 in the piedmont of North Carolina; whereas ventral counts for the Merritt Island (UF 48182) and the 2 FMNH Okeechobee specimens (48265 and 48266) are 213, 211, and 209, respectively. Similarly, total blotch counts for the 3 southcentral Florida specimens (75 for the Merritt Island specimen and 73 and 80 for the Okeechobee specimens) are higher than the averages given by Price (1977) for any of the 4 more northern populations for which he provided data. Christman (1980) also noted that a common trend in the 15 Florida snake species examined by him (not including

L. calligaster) was an increase in ventral scale counts and number of blotches from north to south.

Because of the paucity of records, the distribution of the mole snake in Florida remains poorly understood. However, present evidence suggests that the peninsular populations are localized and disjunct from one another and from those in the panhandle.

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