

## Dietary records for the Eastern Coachwhip, *Masticophis flagellum flagellum* (Shaw, 1758), in the Southeastern United States

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The diet of *Masticophis flagellum flagellum* (Shaw) (Eastern Coachwhip) has been reported to include small mammals, birds and their eggs, turtles, snakes, lizards, anurans, and insects and other arthropods (Mount, 1975; Brown, 1979; Tennant, 1984; Johnson, 1987; Ashton and Ashton, 1988; Collins, 1993; Ernst and Ernst, 1993; Palmer and Braswell, 1995; Trauth, Robison and Plummer, 2004). Lizards are frequently reported as important or primary prey (Hamilton and Pollack, 1956; Tennant, 1984; Palmer and Braswell, 1995; Trauth and McAllister, 1995; Trauth, Robison and Plummer, 2004; Halstead, Mushinsky and McCoy, 2008; Beane et al., 2010). However, out of 30 stomachs examined from Louisiana, Clark (1949) found only birds (12 stomachs) and mice (18 stomachs).

Here I report 41 prey items from 29 *M. f. flagellum*—mostly road-killed specimens—from North Carolina, Florida, and South Carolina, southeastern USA (Table 1).

To the best of my knowledge, *Terrapene carolina*, *Plestiodon inexpectatus*, and *Reithrodontomys humulus* represent previously unreported food items in the diet of *M. flagellum*. Apparently, the only turtle species previously reported are a hatchling *Kinosternon subrubrum* (Eastern Mud Turtle) (Hamilton and Pollack, 1956) and a hatchling *Pseudemys concinna* (River Cooter) (Brown, 1979).

Lizards were found in 23 of the 29 (79.3%) snakes in this study, and they accounted for 29 of 41 (70.7%) total food items. *Aspidoscelis s. sexlineata* (Six-lined Racerunners) were eaten by 16 of 29 (55.2%) snakes, and accounted for 21 of 41 (51.2%) total food items.

This is consistent with studies by Hamilton and Pollack (1956), who found *A. sexlineata* in 51.1% of 45 coachwhip stomachs examined from Georgia; and by Trauth and McAllister (1995), who found lizards in all stomachs of *M. f. flagellum* they examined that contained food remains, with *A. sexlineata* being the most common food item. Moreover, Brown (1979) and Palmer and Braswell (1995) reported at least 19 additional instances of *A. s. sexlineata* in the diet of *M. f. flagellum* from the Carolinas, and Carpenter (1958) found *A. sexlineata* to be the most common food item among several *M. f. flagellum* examined from Oklahoma. All these data support characterizing *M. f. flagellum* as an opportunistic, generalist predator with a strong tendency to specialize in feeding on lizards, especially whiptails (*Aspidoscelis*), where such prey are available.

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**Table 1.** Food records (n = 41) for *Masticophis f. flagellum* (n = 29) from southeastern USA. Items were recovered from the stomach or gut of road-killed specimens unless otherwise indicated.

State	County	Age/Size	Sex	Date	Food Item(s)
NC	Bladen	adult	?	25 July 1995	Adult <i>Aspidoscelis s. sexlineata</i> (Six-lined Racerunner)
NC	Onslow	hatchling	?	20 Sept. 1995	<i>A. s. sexlineata</i>
NC	Scotland	hatchling	male	17 Oct. 1998	2 juvenile <i>Anolis carolinensis</i> (Green Anole)
NC	Moore	adult	male	8 May 1999	Adult <i>A. s. sexlineata</i>
NC	Richmond	adult	female	5 May 2000	2 juvenile <i>Sigmodon hispidus</i> (Hispid Cotton Rat)
SC	Aiken	adult	male	1 Oct. 2000	Juvenile <i>Sylvilagus floridanus</i> (Eastern Cottontail)
NC	Scotland	juvenile	male	29 Oct. 2000	Juvenile <i>Sceloporus undulatus</i> (Fence Lizard)
NC	Richmond	adult	male	28 April 2002	Adult <i>Plestiodon inexpectatus</i> (Southeastern Five-lined Skink)
NC	Scotland	adult	male	2 May 2002	Undetermined rodent
NC	Richmond	hatchling	male	2 Oct. 2002	Subadult <i>A. s. sexlineata</i>
NC	Moore	adult	male	23 May 2004	2 adult <i>A. s. sexlineata</i>
NC	Scotland	hatchling	male	5 Oct. 2004	Juvenile <i>A. s. sexlineata</i>
NC	Scotland	juvenile	?	12 Oct. 2004	Juvenile <i>A. s. sexlineata</i>
NC	Scotland	adult	male	3 Oct. 2005	<i>Xylophanes tersa</i> (Tersa Sphinx) caterpillar
FL	Levy	adult	male	25 April 2006	Adult male <i>Plestiodon laticeps</i> (Broad-headed Skink)
NC	Richmond	adult	male	24 June 2006	Adult male and adult female <i>A. s. sexlineata</i>
NC	Moore	adult	female	30 Aug. 2007	2 subadult <i>A. s. sexlineata</i> and undetermined rodent
NC	Scotland	adult	male	28 Sept. 2008	At least 2 <i>A. s. sexlineata</i> and remains of undetermined smooth-scaled snake [passed in feces]
NC	Scotland	hatchling	male	19 Sept. 2009	Juvenile <i>A. s. sexlineata</i>
NC	Scotland	hatchling	female	20 Sept. 2009	Juvenile <i>A. s. sexlineata</i>
NC	Moore	adult	male	20 Sept. 2009	2 hatchling <i>Terrapene c. carolina</i> (Eastern Box Turtle) and 1 juvenile <i>P. inexpectatus</i>
NC	Richmond	hatchling	?	3 Oct. 2009	Juvenile <i>A. s. sexlineata</i>
NC	Scotland	hatchling	female	8 Oct. 2009	<i>Sincella lateralis</i> (Ground Skink)
NC	Richmond	adult	male	12 May 2010	Adult <i>A. s. sexlineata</i>
NC	Moore	adult	female	16 Sept. 2010	<i>Reithrodontomys humulis</i> (Eastern Harvest Mouse)
NC	Onslow	large adult	male	8 May 2011	Subadult <i>P. inexpectatus</i>
NC	Moore	large adult	female	17 June 2011	2 adult <i>A. s. sexlineata</i>
NC	Richmond	adult	male	14 August 2011	<i>X. tersa</i> caterpillar
NC	Montgomery	adult	male	Sept. 2011	Subadult <i>A. s. sexlineata</i> , juvenile <i>S. floridanus</i>

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