

Dichotomous Key to Oklahoma Snakes

This dichotomous key is a general guide for the snakes of Oklahoma. Currently, an official key to Oklahoma's reptiles does not exist. In order to key out and identify Oklahoma's reptiles, one must use numerous keys from surrounding states and put together a list of possibilities. This key has been compiled and written by Richard Butler, using the Peterson Field Guide to Reptiles and Amphibians of the Eastern and Central United States, Canada, and Mexico. This is one of the best field guides, but of course, there are many others that may work just fine.

This key, for now, is only for snakes. I am working to include lizards and amphibians. I have made this key to be relatively simple, beginning with the most basic and noticeable features. Through the process of elimination, one should be able to identify any snake captured from anywhere within the state, and some from other states. However, this key should only be used for the sole purpose of identifying those species found within the state of Oklahoma.

Order Squamata (Snakes and Lizards)

- 1a. Legs present.....Suborder Lacertilia
- 1b. Legs absent.....2

- 2a. Eyelids and ear openings present.....*Ophisaurus attenuatus*
- 2b. Eyelids and ear openings absent.....Suborder Serpentes

Suborder Lacertilia - Lizards (Under Construction)

Suborder Serpentes - Snakes

- 1a. Dorsal and ventral scales small, uniform in size; eyes reduced.....*Leptotyphlops dulcis*
- 1b. Dorsal and ventral scales distinctly different; eyes not reduced.....2

- 2a. Pupils round (sometimes oval).....10
- 2b. Pupils elliptic (cat-eyed).....3

- 3a. Deep facial pit between eyes and nostrils.....4
- 3b. No facial pit between eyes and nostrils.....*Hypsiglena torquata*

- 4a. Rattles present.....5
- 4b. Rattles absent.....9

- 5a. Head with nine large cranial scales.....6
- 5b. Head with numerous small scales.....7

6a. Body gray with spots, sometimes with rusty mid-dorsal stripe.....	<i>Sistrurus miliarius</i>
6b. Body brown with “figure 8” blotches; no mid-dorsal stripe.....	<i>Sistrurus catenatus</i>
7a. Body with V-shaped (chevron) bands; rusty mid-dorsal stripe.....	<i>Crotalus horridus</i>
7b. Body with blotches or diamond-shaped markings; no mid-dorsal stripe.....	8
8a. Body with diamond-shaped markings; alternating black and white bands on tail.....	<i>Crotalus atrox</i>
8b. Body with “figure 8” markings on brown or green ground color.....	<i>Crotalus viridis</i>
9a. Body dark, almost patternless, and robust; habitat near water.....	<i>Agkistrodon piscivorus</i>
9b. Body color variable, light brown to bronze; hourglass bands across back.....	<i>Agkistrodon contortrix</i>
10a. Scales smooth or weakly keeled.....	11
10b. Scales keeled (raised ridge in center of scale).....	25
11a. Anal scale single.....	12
11b. Anal scale divided.....	17
12a. Belly checkered with brown or black pigment.....	13
12b. Belly unmarked or with little pigmentation.....	15
13a. Body black with white or yellow spots.....	<i>Lampropeltis getula</i>
13b. Body not as above.....	14
14a. Body with red or brown blotches or spots outlined in black.....	<i>Lampropeltis calligaster</i>
14b. Body with alternating bands of red, black, and yellow or white....	<i>Lampropeltis triangulum</i>
15a. Body with brown blotches.....	<i>Arizona elegans</i>
15b. Body not as above.....	16
16a. Red saddles on back bordered by black.....	<i>Cemophora coccinea</i>
16b. Red and black crossbands; subcaudals in single row.....	<i>Rhinocheilus lecontei</i>
17a. Belly orange, red, or pink	18
17b. Belly not as above.....	20
18a. Orange or red ring around neck, may or may not complete.....	<i>Diadophis punctatus</i>
18b. Neck ring absent.....	19
19a. Dorsum black with red and black belly.....	<i>Farancia abacura</i>
19b. Dorsum purplish black with salmon pink belly.....	<i>Carphophis vermis</i>
20a. Nose pointed; eyes large and forward.....	21
20b. Nose blunt; eyes lateral.....	22

21a. Scale rows 13 in front of tail.....	<i>Coluber flagellum</i>
21b. Scale rows 15 in front of tail.....	<i>Coluber constrictor</i>
22a. Head darker than rest of body (bicolored).....	23
22b. Head color typically same as body (concolored).....	24
23a. Head color faded; posterior end of cap is concaved.....	<i>Tantilla gracilis</i>
23b. Head color black; posterior end of cap is convexed.....	<i>Tantilla nigriceps</i>
24a. Weakly keeled scales; body peppered or plain; loreal scale horizontal and touching eye; 6 upper labial scales.....	<i>Virginia valeriae</i>
24b. Smooth scales; body variable, with crossbands, collar, or plain; loreal scale not touching eye; 7 upper labial scales.....	<i>Sonora semiannulata</i>
25a. Anal single.....	26
25b. Anal divided.....	33
26a. Body with blotches; four prefrontal scales on crown.....	<i>Pituophis catenifer</i>
26b. Body with longitudinal lines.....	27
27a. Belly with parallel rows of spots.....	<i>Tropidiclonion lineatum</i>
27b. Belly plain.....	28
28a. Light line on scale rows 2 and 3.....	29
28b. Light line on scale rows 3 and 4.....	32
29a. Large black blotch on each side of neck.....	<i>Thamnophis cyrtopsis</i>
29b. Black blotch absent.....	30
30a. Black squares “checkering” sides.....	<i>Thamnophis marcianus</i>
30b. Sides peppered with spots.....	31
31a. Location: NW Panhandle (Black Mesa).....	<i>Thamnophis elegans</i>
31b. Not as above.....	<i>Thamnophis sirtalis</i>
32a. Alternating row of black spots between stripes.....	<i>Thamnophis radix</i>
32b. Back uniformly black between stripes.....	<i>Thamnophis proximus</i>
33a. Rostral scale turned up, nose pointed.....	34
33b. Rostral scale not turned up, nose rounded.....	35
34a. Belly plain.....	<i>Heterodon platirhinos</i>
34b. Belly with black ventral scales.....	<i>Heterodon nasicus</i>
35a. Body blotched or banded.....	36
35b. Body plain or with longitudinal stripes.....	41

36a. Squared ventral scales.....	37
36b. Ventral scales without squared edges.....	38
37a. Mostly black (adults), may have yellow or red accents; head lacking "spearpoint"; juveniles with post-ocular stripe stopping at corner of mouth; underside of tail spotted or plain.....	<i>Pantherophis obsoletus</i>
37b. Gray body color; red blotches outlined in black; "spearpoint" on head; juveniles with post-ocular stripe continuing beyond corner of mouth; underside of tail striped..	<i>Pantherophis emoryi</i>
38a. Body banded, in whole or in part.....	39
38b. Body with blotches only.....	40
39a. Body with bands only.....	<i>Nerodia fasciata</i>
39b. Body with bands posterior and blotches anterior.....	<i>Nerodia sipedon</i>
40a. Dark blotches with light crossbars.....	<i>Nerodia erythrogaster</i>
40b. Light blotches with dark crossbars.....	<i>Nerodia rhombifer</i>
41a. Body uniform in color; belly plain.....	42
41b. Body plain or with longitudinal stripe(s).....	43
42a. Body long and slender; plain green above with bright yellow belly.....	<i>Opheodrys aestivus</i>
42b. Body plain brown; head small and pointed.....	<i>Virginia striatula</i>
43a. Light mid-dorsal line (often zigzag).between parallel rows of spots.....	44
43b. Back plain.....	45
44a. Belly plain brown.....	<i>Storeria dekayi</i>
44b. Belly plain red.....	<i>Storeria occipitomaculata</i>
45a. Broad yellowish stripe on scale rows 1, 2, and 3.....	<i>Regina grahamii</i>
45b. Lateral stripe faint or absent.....	<i>Regina rigida</i>

Last Modified March 9, 2013