



## REPTILES

Status: Common, Native Resident

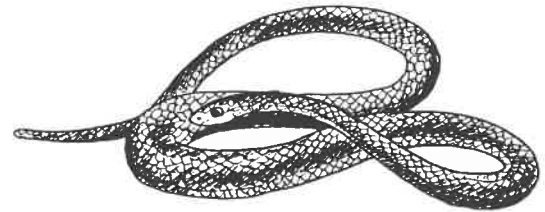
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# SMOOTH GREEN SNAKE

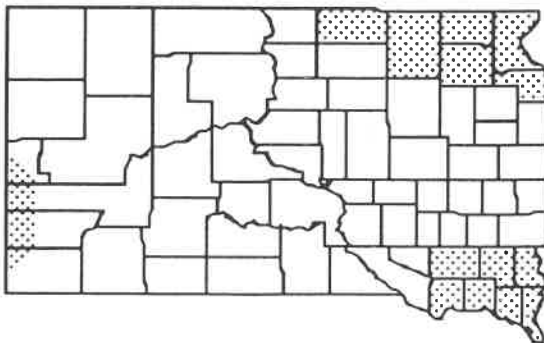
(*Opheodrys vernalis*)

## Description

The Smooth Green Snake, also known as the grass snake, is a slender snake, bright grass-green to yellow-green in color, with smooth, unridged scales. The underside of yellowish-green individuals is yellowish-white, while snakes with grassy-green backs have a greenish-white underbelly. Average total length ranges between 14 to 20 inches (35 - 51 cm), with the record length being 26 inches (66 cm). There are two subspecies, eastern and western, both of which occur in South Dakota. The subspecies differ primarily in the number of scales on their underside. Young snakes are olive to bluish-gray in color. These animals are well-camouflaged in grassy areas, and can move quickly to avoid capture.



## Distribution



Approximate Distribution of the Smooth Green Snake in South Dakota.

Smooth green snakes are found throughout southern Canada, the north-central United States, and several isolated locations in the west. In South Dakota they inhabit only the most extreme northeastern and southeastern regions of the state, and parts of the Black Hills. Scientists believe that the Black Hills population is the eastern subspecies, *O.v. vernalis* and represents an isolated population surrounded in all directions by the western subspecies, *O.v. blanchardi*. The western subspecies prefers native prairie, fern or shrubby areas, or overgrown fields. It is not uncommon to find this snake in the lawns and gardens of suburban homes. The eastern subspecies in the Black Hills is most often found in forest habitat.

## Natural History

Smooth green snakes have a primarily terrestrial life, preferring to stick to the

ground rather than climbing to branches or other lofts, like their close relative, the rough green snake.

Smooth green snakes begin to emerge from their *hibernation* sites, (usually tree stumps, mud mounds, under rocks, and logs, etc.) in April or May and tend to mate in the late spring or summer. These snakes may hibernate individually or in a group. The eggs are laid from June to September. Females usually incubate the eggs inside their body until they are deposited, in 2 *clutches*, ranging from 4 to 6 eggs. The eggs are white, cylindrically shaped, with a thin leathery shell. The nest sites are usually in damp places under rocks or rotting wood, and often in areas where the eggs can be exposed to the sun's heat. The incubation period varies from 23 to 38 days; quite a short time when compared to other species of snakes. The young emerge as dark-olive or blue-gray in color, and are on average, 4 inches (10 cm) long. Because of their color at birth, the young are often misidentified as black racers. But, racers have rough, keeled scales, while the smooth green has, as the name implies, smooth scales. Green snakes will gather their young into their mouth when threatened.

The diet of the smooth green snake consists mostly of spiders and insects of varying sizes. Many garden pests, such as slugs, are eaten by the smooth green snake. While hunting, the snake often waves its head back and forth, using its forked tongue and an organ located in the

roof of the mouth to interpret chemical signals to locate prey. The snake has no eyelids, but can see well over short distances. They also have no ears, and instead rely on ground vibrations to interpret their surroundings. Stretchy ligaments in their jaws allow the snake to swallow whole prey much larger than their own body diameter. In order to grow, the smooth green snake must shed its skin. In some cases this process occurs as often as every 4 to 5 weeks, leaving behind an empty snake skin each time. The main predators of smooth green snakes are great blue herons, red tailed hawks, rough-legged hawks, raccoons, bears, foxes, and the common house cat.

## Conversation Measures

The smooth green snake is in no immediate danger of becoming extinct. In areas where the snakes are found, they usually have large populations. Because of the snakes' high daytime activity rate and calm nature, they are often captured by people. Unlike the garter snake, the smooth green snake does not make a good household pet for often they will not eat in captivity and will soon die. When captured, the snake rarely bites, even if it does, it will almost never break the skin. When handled by humans the smooth green snake exhibits excited behavior, usually calming down only after it has wrapped itself around the person's finger. If provoked, the snake will secrete a foul-smelling substance from its anal gland. This defense is used by the majority of snake species.

## Glossary

**Clutch** - the number of eggs hatched or incubated at the same time.

**Hibernation** - passing the winter in a state of dormancy with lowered metabolism and heart rate.

## References

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