

COMMON WATERSNAKE

Nerodia sipedon

Order: Squamata
Family: Colubridae
FNAI Ranks: G5/S2
U.S. Status: none
FL Status: none



Description: All watersnakes of the genus *Nerodia* (*Natrix* in older literature) have keeled dorsal scales, a divided cloacal (anal) scale, a double row of scales under the tail, and round pupils. Florida *N. sipedon* (assigned to midland subspecies, *N. s. pleuralis*) are medium-sized, relatively heavy-bodied snakes that typically reach 60-75 cm (24-30 inches) in total length, although large specimens can exceed 120 cm (47 inches). Dorsal coloration is tan or grayish to brown with darker, black-bordered crossbands anteriorly (occasionally full length) and usually alternating dorsal and lateral blotches over the posterior half of the body. The cream to yellowish venter typically bears brownish red semilunar markings for most of the length. The upper labial (jaw) scales touch the bottom of the eye. Young are similar to adults but may be more boldly patterned (Ashton and Ashton 1988, Tenant 1997, Powell et al. 2016, Krysko et al. 2019).

Similar Species: The most similar and presumed closest relative to *N. sipedon* is the southern (banded) watersnake, *N. fasciata*; the latter tends to have dark crossbands for most of its body length, vs only the anterior portion in *N. sipedon*, and its ventral pattern may include vermiculate markings or squarish spots rather than the half-moon shaped markings of *N. sipedon*. The two species are known to hybridize in some locations that are transitional between the more lotic habitats occupied by *N. sipedon* and more lentic ones favored by *N. fasciata*. Both species of green watersnakes (*N. cyclopion* and *N. floridana*) have relatively unicolor dorsal pattern as well as scales (suboculars) between the eye and upper labial scales. Subocular scales are also absent in other watersnakes (*N. erythrogaster*, *N. rhombifer*, and *N. taxispilota*) that can occur in the Panhandle. The brown watersnake (*N. taxispilota*) has isolated dark brown blotches (never bands) on a lighter brown background, and eyes positioned high on a subtriangular head. The Gulf saltmarsh snake (*N. c. clarkii*), which may occur along the coasts of the same counties occupied by *N. sipedon*, has stripes running the length of its body. The red ratsnake (or cornsnake; *Pantherophis guttatus*) has orange-red to brown dorsal blotches, a spearpoint pattern between the eyes, black and white checkerboard ventral pattern, and less conspicuous keels on dorsal scales. Although the tendency of most watersnake species to flatten their bodies and heads and strike if

molested causes some people to confuse them with the venomous cottonmouth (*Agkistrodon piscivorus*), the latter is distinguished by its heavy body and large, triangular head, white-bordered dark stripe through the eye, vertical pupils, facial pit between each eye and nostril (absent from *Nerodia*), and single row of scales beneath the tail (Tennant 1997, Jensen et al. 2008, Powell et al. 2016, Krysko et al. 2019).

Habitat: Although across much of its range *N. sipedon* inhabits a large variety of freshwater wetland habitats, along the lower Gulf coast (including in Florida) it tends to be associated with smaller, sand-bottomed streams with discrete shorelines (Dundee and Rossman 1989, Tennant 1997, Krysko et al. 2019). Its absence from rivers, sluggish streams, and floodplains likely relates to use of those habitats by other species of watersnake, notably *N. cyclopion*, *N. erythrogaster*, *N. fasciata*, and *N. taxispilota*.

Seasonal Occurrence: The species occurs year-round in appropriate habitat, although it may be observed infrequently because of nocturnal habits in warm weather. Activity is reduced in colder months, although diurnal basking may occur. Live young are born in mid- to late summer (Tennant 1997, Krysko et al. 2019).

Florida Distribution: The common watersnake (midland subspecies) is known in Florida only from the western Panhandle in the Yellow and Choctawhatchee river basins, although potentially it may occur in the Escambia River basin just to the west (Krysko et al. 2019).

Range-wide Distribution: *N. sipedon* occurs across much of the eastern U.S. and northward into the Great Lakes region of southern Canada. The northern subspecies, *N. s. sipedon*, inhabits states from the eastern Great Plains to the Atlantic Ocean, whereas the midland subspecies, *N. s. pleuralis*, inhabits the lower Mississippi River basin from central Illinois to the Gulf and extending eastward to South Carolina.

Conservation Status: The species' very large range outside of Florida, and even that of the midland subspecies, assures that it is generally secure, although aquatic disturbances and drainage can threaten local populations. The Florida population faces no immediate threats if stream habitats within its limited range are maintained with appropriate habitat buffers and good water quality.

Protection and Management: Protect freshwater wetlands, especially sand-bottomed streams, in the westernmost counties of the Florida Panhandle. Document all observations of this snake either via specimens (for roadkills) or comprehensive photographs of live specimens. Use sterile procedures to examine all specimens for signs of snake fungal disease, which is known to affect watersnakes. Avoid impoundment and construction of new roads and expansion of existing ones within 100 m of streams known to be occupied by the species. If this cannot be avoided, installation of wildlife crossing corridors (e.g., expanded box culverts) beneath existing roads may facilitate safe movements.

References: Ashton and Ashton 1988, Dundee and Rossman 1989, Jensen et al. 2008, Krysko et al. 2019, Mount 1975, Powell et al. 2016, Tennant 1997.



Adult, Walton County, Florida. © Kevin. M. Enge



Juvenile, Walker County, Georgia. © John B. Jensen.



Mirrored adult showing venter, Eglin Air Force Base, Florida. © D. Bruce Means.