

# Cottonmouths and the Department of Defense

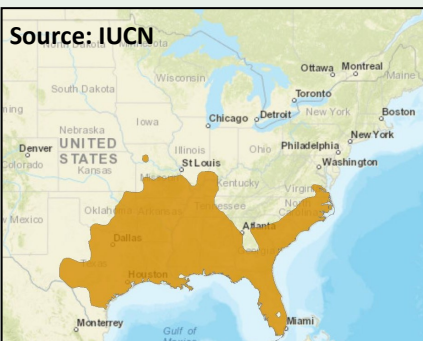


Picture by: Chris Petersen

**Cottonmouths (*Agkistrodon piscivorus*) are venomous, semi-aquatic snakes often referred to as “water moccasins.” They are the second most abundant venomous snake on military lands. It receives its name from the whiteness of the interior of its mouth that it exposes as a defensive display when alarmed.**

**Description:** Adult Cottonmouths typically measure between 20 to 48 inches (51 to 121 cm) in length, with males being larger than females. They range in color from olive, brown, or black. Crossbands with dark borders and light centers are most distinctive at birth. The light centers darken with age, resulting in a more solid coloration in adults. Juveniles have a yellowish or greenish-colored tail tip that they wiggle to attract prey. The side of the head of both juveniles and adults has a broad stripe that is usually bordered above and below by narrow white lines.

**Range:** Cottonmouths range from southeastern Virginia to southern Florida, west to central Texas, Oklahoma, Arkansas, Missouri, and southeastern Kansas, and north in the middle Mississippi River drainage to southern Illinois.



Source: IUCN

**Habitat:** This species inhabits a variety of aquatic and wetland habitats: swamps, sloughs, delta bayous, ponds, streams, offshore keys, marshes, river bottoms, lowland floodplains, tidal stream courses, dune and beach areas, drainage ditches, brackish waters, and sometimes salt marshes. They will travel overland and will migrate between wetland areas in response to drought. Hibernation sites include rocky wooded hillsides, under rotting stumps or other cover, or in burrows of crayfishes, mammals (e.g., beavers, muskrats), or tortoises.

**Behavior:** Cottonmouths are typically found basking on rocks, logs, or stumps during the day. In the warmer summer months, they frequently forage at night, particularly during and shortly after rain. They will consume a variety of vertebrates, including fishes, small mammals, snakes, lizards, turtles, amphibians, insects, small birds, as well as crayfishes and even carrion. They employ both ambush and active foraging strategies. Cottonmouths can be readily recognized when swimming because most of their body, in particular the head, is above the water's surface. In comparison, water snakes swim with most of their body below the water's surface. If approached, this species may remain motionless, coil up, or crawl away very rapidly into the nearby water. If cornered, it will often “mouth gape” to display the cotton white interior of its mouth as a warning—hence how it received its common name.

**Military Interactions:** This species is often confused with many species of nonvenomous water snakes (*Nerodia*). Education of installation personnel is important for the correct identification of this species. Venomous bites from Cottonmouths are rarely life-threatening, but may still have serious consequences (e.g., severe tissue and nerve damage).

**Conservation Status:** Cottonmouths are not federally protected. They are state-endangered in Indiana. This species has a NatureServe conservation ranking of G5-Secure and IUCN Red List category as Least Concern.

**Threats/Planning Considerations:** Habitat loss and fragmentation, intentional killing, road mortality, snake fungal disease (SFD). Military natural resource managers should try to maintain habitats used by this species and educate military personnel on the potential dangers associated with this venomous snake.

## Occurrence on Military Lands

Confirmed	Potential
Confirmed present on 27 Army, 20 Navy, 13 Air Force and 5 Marine Corps installation across its range.	Up to an additional 8 Army, 25 Navy, 12 Air Force and 1 Marine Corps installations across its range.

