

Eastern Hog-nosed Snakes and the Department of Defense



Picture by: Department of Military and Veterans Affairs

Despite their many ominous common names (blowing adder, hissing snake, spread-head viper), Eastern Hog-nosed Snakes (*Heterodon platirhinos*) are generally docile animals that bluff and pretend death to discourage potential predation. This species is rear-fanged and is not considered dangerous to people; however their saliva includes toxic enzymes that may cause minor, temporary reactions in some people.

Occurrence on Military Lands

Confirmed	Potential
Confirmed present on 13 Air Force; 42 Army; 6 Marine Corps; and 19 Navy properties.	Up to an additional 31 Air Force; 41 Army; 2 Marine Corps; and 42 Navy properties.

Description: Adult Eastern Hog-nosed Snakes typically measure between 20-33 inches (51-84 cm) in length. They have a highly variable background color that may include different shades of yellow, brown, gray, black, red, or orange, patterned with large, darker-colored brown, gray, or black spots or chevrons along the top and sides of the body and tail. However, individuals from frequently burned areas (e.g., longleaf pine forests) tend to be uniformly black or dark gray. A black stripe is present between the eyes and down the side of the head towards the rear of the mouth. It has an upturned snout.



Source: NatureServe

Distribution: Their range extends from southern New England through southern Ontario to Minnesota and South Dakota, and south to southern Texas, the Gulf Coast, and southern Florida.

Habitat: Eastern Hog-nosed Snakes inhabit woodlands, grasslands, fields, meadows, and coastal areas with loose, sandy soils. They use their upturned snouts for burrowing and digging up prey in these habitats. It overwinters in burrows (made by mammals or self-dug) or under rocks of talus slopes.

Behavior: Eastern Hog-nosed Snakes are active primarily by day and are often seen crossing roads in the spring and fall. In most areas, their predominant prey is toads; however, they will also prey on frogs, salamanders, small mammals, birds, and invertebrates. They breed in spring and usually deposit about 15-30 eggs in a depression in sandy soils under rocks or logs. Species of hog-nosed snake have a unique array of defensive postures. When confronted, they will suck in air, spread the skin around their head and neck (like a cobra), hiss, and lunge towards the source of the threat with a typically closed-mouthed “strike”. If this strategy does not dissuade the threat, they will generally play dead (except the juveniles), rolling onto their back and opening their mouth (usually hanging their tongue out of the side of their mouth) and regurgitating any food items they have recently consumed for added effect. Despite this fairly convincing display, hog-nosed snakes seldom bite humans.

Military Interactions: A moderately common snake species on DoD properties. This species is often persecuted by unknowing personnel as a result of its elaborate defensive behaviors described above. Education of military installation personnel on proper identification is important to prevent unwarranted persecution and unnecessary medical attention.

Conservation Status: Eastern Hog-nosed Snakes are considered in decline throughout much of their range, and are a Species of Greatest Conservation Need (SGCN) in many northern states. In addition, they are state-endangered in New Hampshire and state-threatened in South Dakota. NatureServe lists this species as G5-Secure, and they have an IUCN status of Least Concern.

Threats/Planning Considerations: This snake species is prone to predation by raptors, middle-sized mammals, and other reptiles. Human persecution can be a threat to this species since it is often mistaken as venomous. Soil compaction and erosion, surface mining of sand, and habitat loss are additional threats to this species. Protection of habitats on military sites with loose soils are an important planning consideration for this species.

