

Spotted Salamanders and the Department of Defense

The Spotted Salamander (*Ambystoma maculatum*) is one of the largest mole salamanders in North America. The Latin word *maculatum* means “spotted” and refers to the large spots found on most individuals.

Description: Adults are typically 4.3 to 7.9 inches (11 to 20 cm) in total length, but can reach a total length of 9.8 inches (25 cm). Individuals have two irregular rows of large, yellow spots that extend from the eye to tip of the tail. Some individuals have orange spots on the head that contrast with the yellow spots on the body. Dorsal color ranges from black to gray.

Range: This species occurs from southeastern Canada to the southeastern United States (excluding Florida) and west to eastern Iowa and Texas.



Habitat: Preferred habitats include mature (typically deciduous) forests in both the mountains and lowlands, and particularly the vicinity of small pools, shallow wetlands, and other areas prone to filling with water during the species winter-spring breeding season. Migrations between non-breeding and breeding habitats may extend up to several hundred meters. Logs, stumps, and mammal burrows provide important cover for this species.

Behavior: This salamander is usually underground or under soil surface objects except on rainy nights during the breeding period. From January to April, adult Spotted Salamanders begin migrating to seasonally ephemeral wetlands to breed. Females will begin depositing eggs 2-3 days after mating. The greenish color associated with most egg masses is due to the colonization of a unicellular green algae (*Oophila ambystomatis*) that develops a mutualistic symbiotic relationship with the embryos by increasing the oxygen supply to the embryos while feeding on the embryo’s nitrogen-rich waste. Eggs hatch in 4-7 weeks and larvae complete metamorphosis approximately 2-4 months (June to August) after hatching. This species can live up to 20 years in the wild.

Conservation Status: The Spotted Salamander is not federally- or state-listed as threatened or endangered. NatureServe lists this species as G5 –Secure, and the IUCN ranks the species as Least Concern.

Threats/Planning Considerations: Habitat fragmentation, deforestation, loss or isolation of breeding sites, collection for the pet trade, disease, and road mortality are all threats to this species. Military natural resource managers should try to maintain forested buffers of several hundred meters around wetland habitats.



Picture by: Seth Berry

Occurrence on Military Lands

Confirmed	Potential
Confirmed present on 42 Army, 24 Navy, 8 Air Force and 1 Marine Corps installation across its range.	Up to an additional 31 Army, 6 Navy, 13 Air Force and 3 Marine Corps installations across its range.

