

MARBLED SALAMANDER FACT SHEET

*The marbled salamander (*Ambystoma opacum*), also called the banded salamander, is a member of the mole salamander family. It gets its name from the white or silver bands that cover the black bodies of adult salamanders.*



HABITAT

The marbled salamander is typically found in floodplains and low-lying fertile areas dominated by hardwood trees. The animal remains underground during dry weather. In the fall it leaves the woods and migrates to a nearby pond, where it mates, and females lay eggs.

RANGE

Marbled salamanders occur from southern New England to northern Florida and west to southern Illinois, southeastern Oklahoma and eastern Texas. Disjunct populations are found near the southern perimeters of Lakes Erie and Michigan, as well as in southwestern Missouri and along the northern border between Ohio and Indiana.

BREEDING

Although other salamander species in the mole salamander family breed in water, the marbled salamander does not. It migrates to a pond before autumn rains begin. There, the animal begins to court and mate. Each female lays her clutch of 30 to 100 eggs in a dry depression, and the embryos begin to develop. A female usually stays with her eggs until autumn rains begin to fill the pond. When the nest sites become flooded, the eggs hatch within a few hours or days.

FEEDING

Aquatic salamander larvae feed almost continuously on zooplankton, tiny near-microscopic aquatic animals.

They feed in the water at night and under leaf litter on the bottom of the pond during the day. As they grow, they eat larger prey, such as small insects, tadpoles and the larvae of other kinds of salamanders. After four to six months, the larvae have grown enough to lose their gills (or metamorphose), and leave the pond to live on land.

Adults remain dormant underground during dry conditions, but they feed during opportune times and use much of their energy to grow and build up fat reserves. Adults usually reach a length of 3-1/2 to 4 inches and live an average of four years.



RESEARCH

Scientists at the Savannah River Ecology Laboratory have studied marbled salamanders and other amphibian populations at the Savannah River Site continually since 1978. Because adult salamanders migrate at night, scientists encircle breeding

sites with low fences that guide immigrating adults toward small buckets buried alongside the fences.

During the breeding season, thousands of salamanders fall into the open buckets, assuring scientists of capturing, counting and marking nearly all of the animals for future

identification. The scientists then release the salamanders. They often recapture the same salamanders leaving the bay as well.

This research allows scientists to learn more about amphibian populations and the importance of wetlands to their continued survival.



DID YOU KNOW?

- ✓ The bands on female marbled salamanders are more silver than males' bands, which are generally white.
- ✓ When nesting, female marbled salamanders generally seek out and select nest sites between the deepest and shallowest portions of the bay or pond. This behavior helps prevent eggs from hatching too early after any unseasonal thunderstorms that temporarily flood the deeper areas of the pond. But the position of the nests ensures that they will be flooded by early winter.
- ✓ Scientists across the world have reported a decline in numbers of amphibians of many species, including salamanders. Some of the decline is attributed to habitat destruction and pollution, but the declines in other areas have no apparent cause. However, a long-term study by the Savannah River Ecology Laboratory shows that amphibian populations naturally fluctuate widely over a period of time, with breeding populations in the thousands in some years and near zero in others.
- ✓ Amphibians can be an important food source for other animals, from ducks and wading birds to raccoons, as well as reptiles and other amphibians. Also, larval salamanders probably help control mosquito populations in some habitats.