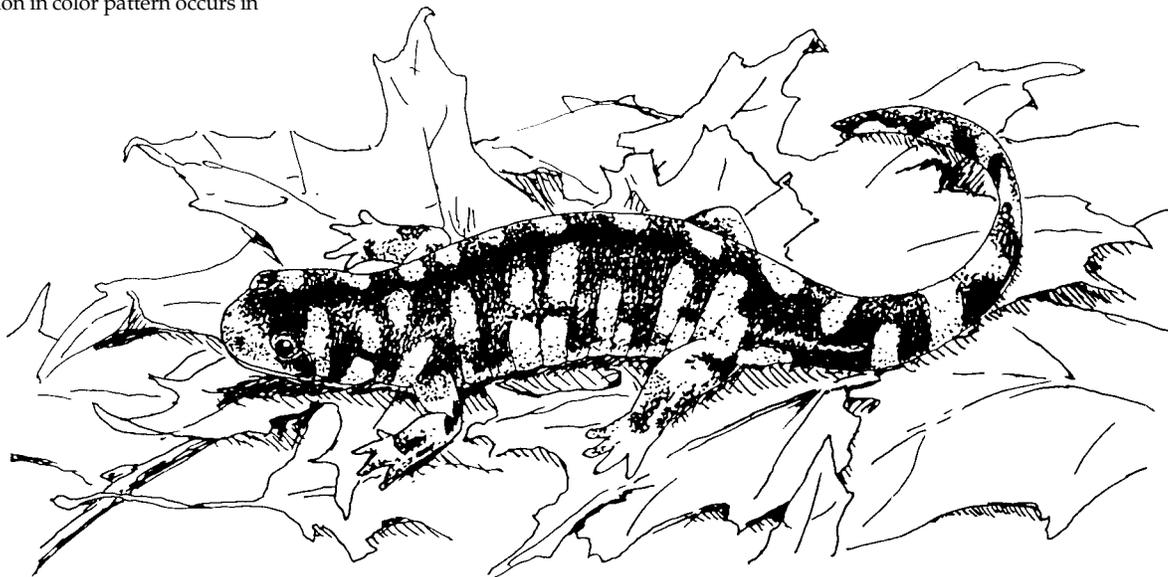


James L. Byford
Professor and Dean
School of Agriculture and
Home Economics
The University of Tennessee, Martin
Martin, Tennessee 38238

SALAMANDERS

Fig. 1. Tiger salamander, *Ambystoma tigrinum*.
Considerable variation in color pattern occurs in
this species.



Damage Prevention and Control Methods

Exclusion

All openings 1/4 inch (0.6 cm) and larger should be sealed to exclude salamanders.

Habitat Modification

Remove all items that lie close to the ground in damp areas, such as lumber or woodpiles.

Frightening

Not applicable.

Repellents

None are registered.

Toxicants

None are registered.

Fumigants

Not applicable.

Trapping

Not applicable.

Shooting

Not applicable.

Identification

Salamanders are smooth-skinned amphibians with no skin covering such as scales, hair, or feathers. They do not have claws. Adult salamanders can be distinguished from frogs and toads by the presence of a tail and by the nearly equal size of their front and hind limbs. Most salamanders are moist or slimy to the touch, which is a good way to distinguish them from lizards, which are dry.

The waterdog, which is completely aquatic (water living), can be recognized by its featherlike external gills.



PREVENTION AND CONTROL OF WILDLIFE DAMAGE — 1994

Cooperative Extension Division
Institute of Agriculture and Natural Resources
University of Nebraska - Lincoln

United States Department of Agriculture
Animal and Plant Health Inspection Service
Animal Damage Control

Great Plains Agricultural Council
Wildlife Committee

Range

There are several dozen kinds of salamanders found in the United States, but most occur only in parts of one or several states. Because salamanders are so dependent on specific habitat conditions, their movements are limited and home ranges are usually very small.

Habitat

Salamanders depend on water and moisture for their existence. Because they do not have a skin covering, they dehydrate rapidly in dry environments. The larvae spend the first part of their lives in water. After the larval form changes to the adult form, most salamanders leave the water and live in moist areas on land. They can usually be found under logs, under rocks, near streams, and in other areas where the ground is moist and shaded from the sun.

Food Habits

All salamanders are predators. They commonly eat insects, slugs, earthworms, and other invertebrates. Some eat leeches, tiny mollusks, crustaceans, and frogs' eggs. As aquatic larvae, they typically eat aquatic invertebrates, but some may even be cannibalistic.

Behavior

Salamanders generally are active when there is no sunshine—at night or on cloudy, rainy days. On sunny days they generally hide in moist areas, such as under stones and logs. Since salamanders are mostly nocturnal (active at night), they are seldom seen by people.

Damage

Salamanders do not cause damage to people or property. Occasionally, they frighten people who are not familiar with them. None have a poisonous bite.

Legal Status

Salamanders are protected in most states, as are other nongame animals. In some areas, they may be legally taken to use as bait for fishing, but in most areas they are completely protected. Some salamanders are on state lists of threatened and endangered species.

Damage Prevention and Control Methods

Exclusion

Salamanders generally do not enter buildings. On occasion, they may be found in a damp basement, if the basement stays moist most of the time and there are items lying close to the damp floor. In such cases, all openings 1/4 inch (0.6 cm) and larger should be sealed to exclude salamanders. Check for openings around the corners of doors and windows, water pipes, and electric service entrances. Holes in masonry foundations (poured concrete and concrete blocks or bricks) should be sealed with mortar. Openings in wood should be sealed with fine mesh (1/8-inch [0.3-cm]) hardware cloth and/or sheet metal.

Habitat Modification

In situations where salamanders are inside buildings, steps should be taken to dry out the basement area (see a construction specialist for this) or remove objects from the floor of damp basements where salamanders can hide. Keep areas outside of buildings free from objects that salamanders can hide under—lumber, sticks, old boards, or firewood. If such items are off the ground (stacked on runners) the soil underneath can dry, making the area unattractive to salamanders.

Frightening

Not applicable.

Repellents

None are registered.

Toxicants

None are registered.

Fumigants

Not applicable.

Trapping

Not applicable.

Shooting

Not applicable.

Economics of Damage and Control

As mentioned earlier, salamanders are completely harmless. They do not have a poisonous bite and cause no hazard to people, except perhaps frightening them. They cause no damage to personal property. Therefore, expense toward control of salamanders is not justified. Most methods required to remove salamanders are inexpensive and are consistent with good grooming of the yard and home environment.

Acknowledgments

Figure 1 by Emily Oseas Routman.

For Additional Information

- Barker, W. 1964. Familiar reptiles and amphibians of America. Harper & Row. New York. 220 pp.
- Cochran, D. M. 1961. Living amphibians of the world. Doubleday. New York. 199 pp.
- Conant, R. 1975. A field guide to reptiles and amphibians of eastern and central North America, 2d ed. Houghton Mifflin Co., Boston. 429 pp.
- Goin, C. J., and O. B. Goin. 1962. Introduction to herpetology. W. H. Freeman, San Francisco. 341 pp.
- Huheey, J. E., and A. Stupka. 1967. Amphibians and reptiles of the Great Smoky Mountains National Park. Univ. Tennessee Press. Knoxville. 98 pp.
- Schlauch, F. C. 1976. City snakes, suburban salamanders. *Nat. Hist.* 85:46-53.

Editors

Scott E. Hygnstrom
Robert M. Timm
Gary E. Larson