

Blue-spotted salamander (*Ambystoma laterale*)

Appearance. Named for its color and markings that are reminiscent of vintage enamelware, the blue-spotted salamander is easily identified by the light blue flecking on its sides, limbs, and tail. It is a medium-size salamander reaching 4 to 5½ inches in length. Adults are shiny black or bluish or grayish black with light blue speckling, although a few Minnesota specimens have been found with little or no speckling. Their front feet have four toes, their hind feet five toes. Larvae are heavily mottled with dark pigment and may have a light yellow stripe down each side. Young salamanders that have recently transformed from larvae may have yellowish spots, and juveniles are often intensely spotted with blue, even on the back.

Range and Habitat. The range of this forest-dwelling salamander overlaps with the most wooded portions of Minnesota. Blue-spotted salamanders are found in a variety of mature woodland types, often with sandy soils. Old-growth forests with an abundance of fallen, decaying logs and bark provide cool, moist retreats. Also important are woodland pools for breeding. Pool types range from permanent to ephemeral, but they must be free of predatory fish and contain water until the larvae can metamorphose, usually August into September.

Breeding. Blue-spotted salamanders breed in early spring, sometimes while snow is on the ground and ice on ponds. Adults migrate to woodland pools during heavy rains. Once they

are in the water, the male performs a courtship “dance” and grasps the female in amplexus while rubbing his snout on the female’s back. Afterward, the male deposits spermatophores, which the female picks up with her cloaca to fertilize eggs internally. The female attaches the eggs to submerged vegetation or the pond bottom singly or in clusters. The eggs hatch in a few weeks, and the larvae will feed aquatically until they metamorphose.

Diet and Behavior. Blue-spotted salamanders feed on small invertebrates such as insects, spiders, and worms. Larvae feed on small aquatic invertebrates, and larger larvae consume small tadpoles or other salamander larvae, even of the same species. Blue-spotted salamanders belong to a group called mole salamanders and are known for their secretive habits. They spend much of their active season hiding and feeding under the cover of fallen debris such as logs, bark, and leaves. They may move about in rainy weather but otherwise stay hidden for protection. If attacked, they may release a white, sticky toxin. They spend winters underground in burrows that travel below the frost line.

Status. Minnesota blue-spotted salamander populations appear to be healthy. Primary threats include loss or alteration to breeding wetland sites and adjacent upland woodland habitats; acidification; and pollution.

Jeff LeClere, DNR
amphibian and reptile specialist



Some adult blue-spotted salamanders (above) have little to no blue speckling. However, a typical adult (below) has spots that recall the random patterns on vintage enamelware.

