Mudpuppy

Necturus maculosus

General characteristics. Only one other salamander in Pennsylvania, the hellbender, grows to a larger size than the mudpuppy. As an adult salamander, the mudpuppy reaches an impressive eight to 13 inches. It is a large, permanent larva, using external gills through its entire life. The mudpuppy is thoroughly aquatic and nocturnal, although it may be active even during the day in muddy or turbid water.

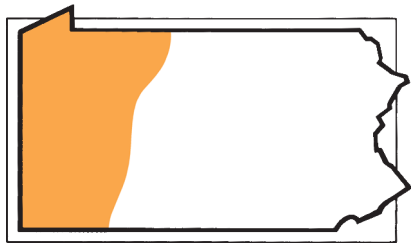
In certain locales this amphibian is also known as the waterdog, a colloquial name that on the surface would appear to lend at least a certain amount of credibility to the mistaken belief that it barks; it does not. Nor is it poisonous as some people suppose. It often is caught on hook and line by anglers and is completely harmless.

Identification. The most striking characteristic of this salamander other than its size, or perhaps because of it, is the large, feathery set of reddish gills billowing out from behind each side of the head (See Figure 11-9); the entire effect is almost incongruous. The size and physical appearance of the gills vary somewhat with the water in which the particular specimen resides. Cold, clear water with ample dissolved oxygen requires less surface area of the gill material, so the gills may become less conspicuous, are held back and may shrink in length. On the other hand, a mudpuppy living in water that is warmer and contains less oxygen tends to retain gills that are large and bushy, the thick plume-like breathing apparatus providing a more effective organ for absorbing scarce oxygen from its less-than-ideal aquatic home.

Figure 11-9
The mudpuppy retains its reddish gills for life.

The legs of the mudpuppy are short but strong. The tail is shaped like a lengthy rudder, useful to a life spent in the water. The tail fin is occasionally tinted with orange or reddish pigments. Its small eyes have no eyelids. There are four toes on the front and hind feet; most salamanders have five toes on the rear pair of feet.

The mudpuppy, or waterdog, is gray to rusty brown on the upper surfaces, which also are showered with dark blue-black spots. The spots have irregular edges and are well-separated from one another. The pale belly is usually gray and is accented with dark spots. A dark stripe runs through each eye. Fifteen or 16 costal grooves mark each side.



Range. In Pennsylvania, the mudpuppy appears primarily in the Ohio River and adjacent Lake Erie watersheds, both part of its original range. This amphibian may also occur in eastern Pennsylvania, principally the Delaware River basin, possibly having migrated through the systems of manmade canals connecting these widely separated watersheds. Its range extends north to New York and southern Canada and south to Tennessee. It is found as far west as Manitoba and eastern Kansas.

Habitat. Mudpuppy populations are found in lakes, rivers and streams. Although it seems to prefer clear, swift water, it can be found in habitats ranging from water that is shallow, muddy, warm and congested with thick stands of aquatic plants, to cool, clear, deep pools and lakes. It likes to spend its day hidden beneath underwater structures, venturing out at night in search of prey.