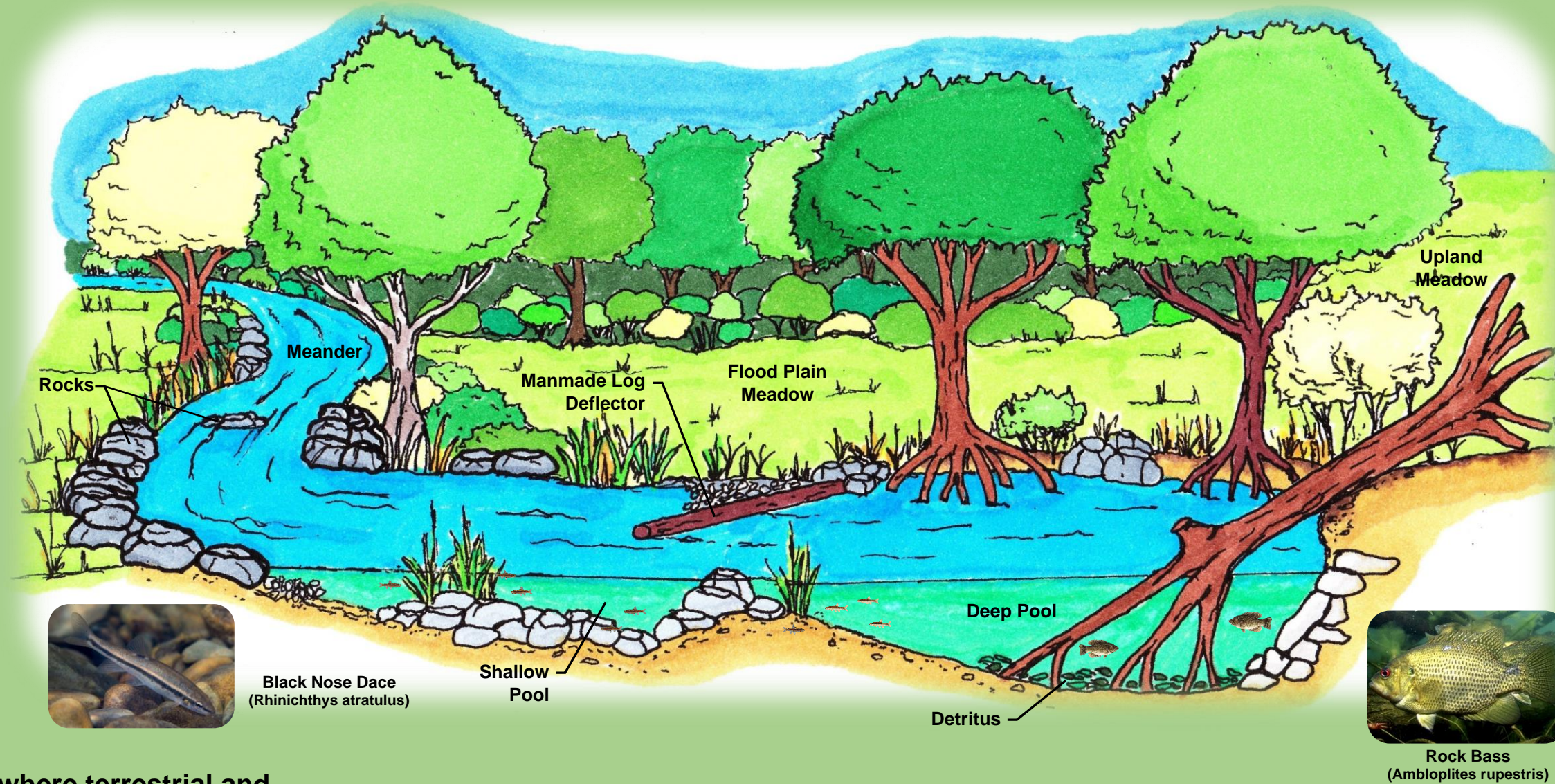


# Plum Run: A Vital Habitat with a Regional Impact...

I came where the river ran over stones; My ears knew an early joy. And all the waters of all the streams sang in my veins that summer day. ~ Theodore Roethke

## Anatomy of a Stream

As a stream moves over the landscape it creates micro-habitats, which are small-scale areas in the stream that differ and support distinct kinds of life. Riffles are shallow areas with swift currents where the water is turbulent. This turbulence helps oxygenate the water and increases biological productivity. Areas of moderate depth and speed called runs and glides are primarily used as feeding zones for fish. Deeper pools provide resting habitat for larger fish. Rocks, plants, and woody debris provide shelter for many creatures.



Eastern Box Turtle  
(*Terrapene carolina*)



Northern Green Frog  
(*Rana clamitans melanota*)



Spinycheek Crawfish  
(*Faxonius limosus*)



Rock Bass  
(*Ambloplites rupestris*)

## Riparian Zone

The land along the stream where terrestrial and aquatic communities intermingle is called the riparian zone. This area is essential to the health of the stream and animals that live in and around it. Access to food, water, and shelter make riparian areas a perfect home for wildlife. Riparian zone plants decrease stream erosion, absorb pollutants, minimize flooding, and provide year-round food and cover for wildlife. In some areas, human development has separated wildlife habitat into smaller patches. Riparian areas that are not left vegetated may be restored to provide a connection between habitat fragments where animals can travel freely. Healthy riparian corridors are like freeways for wildlife. Check the mud next to the stream for tracks of animals that have come this way!



White-tailed Deer  
(*Odocoileus virginianus*)



Opossum  
(*Didelphis virginiana*)



Raccoon  
(*Procyon lotor*)



American Beaver  
(*Castor canadensis*)



American Mink  
(*Neovison vison*)

## Healthy Aquatic Habitats

Plum Run once sustained a healthy, balanced community of fish, invertebrates, and other riparian zone creatures. As the stream was dammed to power Strode's Mill and the watershed was cleared to make way for agriculture, industry, and development, the aquatic community suffered. The Brandywine Red Clay Alliance has led a sustained effort to restore Plum Run Watershed with the goals of improved aquatic habitats and increased biodiversity of aquatic life. A healthy aquatic habitat includes four main ingredients:

1. Naturally sloped stream banks connected to floodplains. Healthy streams have a diversity of riffles, runs, pools, and glides to support a diverse variety of aquatic invertebrates and fish.
2. Streamside (riparian) vegetation. Riparian buffers provide shade and shelter for the fish living in Plum Run. They also filter stormwater runoff and stop harmful elements from entering the stream, such as sodium from winter road salt that is especially harmful to aquatic insects. Each fall, leaves provide the nutrients and organic matter that serve as the base of the aquatic food chain.
3. Clean, cool, and clear water. Cool water is essential for the survival of fish and holds more oxygen than warm water. Excess sediment in water absorbs heat, smothers microhabitats and eggs, and damages fish gills.
4. Logs, roots, cobble, and gravel provide cover for the small creatures that are needed to support top of the food chain wildlife such as great blue herons, kingfishers, and bald eagles.



Great Blue Heron  
(*Ardea herodias*)