



Wet vernal pools support an abundance and variety of animal life.



Spotted salamander



Backswimmer



Blanding's turtle



Damselfly nymph



Predaceous diving beetle larva



Dragonfly nymph



Wood frogs and wood frog eggs



Small-mouthed salamander



Caddisfly larva



Wood frog (top) and Am. toad tadpoles



Spotted (c) & Blue-spotted salamander



Fingernail clam

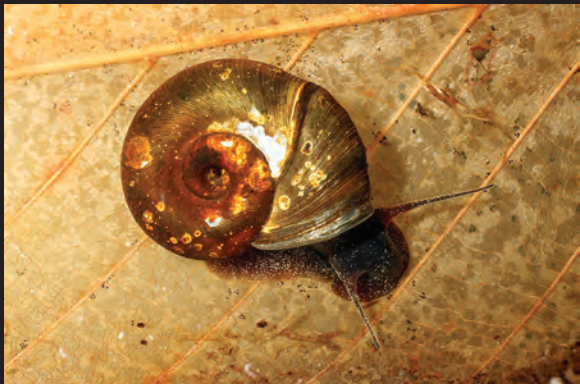
Michigan Vernal Pool Life...

Vernal pools are known throughout Michigan and the eastern United States by various names: spring ponds, ephemeral wetlands, or seasonal pools. Whatever their names, these temporary wetlands fill with water some time between fall and spring and are usually dry by late summer. Vernal pools are essential for the life cycle of many invertebrates and amphibians.

Most vernal pool animals do not live their entire lives in the pool, but migrate in response to seasonal ponding and drying. Mole salamanders and wood frogs spend ninety percent of their lives in the surrounding uplands, as far as a quarter mile from the pool. Adults migrate to the pool for a few weeks to reproduce, and surviving juveniles leave before the water dries. Other organisms (e.g., frogs, turtles, insects, birds) migrate from nearby wetlands to breed or feed in the productive vernal pool waters. These animals return to more permanent wetlands as the pool dries. Other animals develop entirely in the pool and, thus, must survive the dry season in some manner. Fingernail clams and air-breathing snails burrow beneath the leaves and mud of the drying pool to await the return of water. Fairy shrimp produce eggs that remain in the dry pool after the adult's death and hatch after the pool refills.

Vernal pools are important components of forest ecosystems. The nutrients from fallen leaves support a food web rich in invertebrates and amphibians, and to a lesser degree, reptiles, birds, and mammals, but there are no fish. By the time the pool dries, the nutrients from the leaves have cycled through the animal life and returned to the forest. Vernal pools also provide other benefits to people and wildlife. These include helping to recharge the ground water table, reducing flooding and erosion, and improving water quality.

...a race against dryness.



Amphibious snail



Northern ribbon snake



Isopod



Phantom midge larva



Fairy shrimp



Salamander larva



Giant water bug (male with eggs)



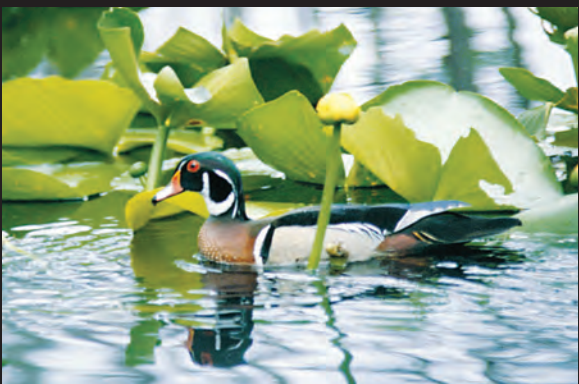
Northern water snake



Blue-spotted salamander



Water scorpion



Wood duck



Spotted turtle



The animals of vernal pools complete their development, migrate, or die before the pool dries.

For further information on vernal pools, go to www.mivernalpools.com

Photo credits: Leo P. Kenney, Tom Lautzenheiser (wet vernal pool), Jim Harding (Northern ribbon snake, small-mouthed salamander), Kille Kueher (Spotted turtle)

Produced by the Vernal Pool Association, Michigan Department of Environment, Great Lakes, and Energy, Michigan Natural Features Inventory, Michigan Nature Association, and the Michigan Vernal Pools Partnership.