**The Marbled Salamander—A Clever Strategist**

The word *vernal* means “in the Spring”. Most of the activity in vernal pools indeed takes place in the Spring, and the pools lie dry and empty for months afterward. However, more is happening there than you might suppose.

Marbled salamanders depend on vernal pools for reproduction, but they have a unique strategy. Unlike their relatives the spotted and Jefferson salamanders, they do not arrive in the Spring. Instead, marbled salamanders move to the pools in the fall. There they engage in a courtship dance. The male deposits a package of sperm plus nutrients, called a spermatophore, inside the female. Then she constructs a shallow nest on the edge of an empty pool basin and deposits of clutch of eggs. She stays with the eggs, possibly for weeks, until rain or snowmelt fills the pool and inundates the eggs. Only then does she return to the forest, leaving the eggs to hatch. Her larvae live under the ice through the winter, eating zooplankton or fairy shrimp and slowly growing until things thaw out in the spring.

By the time other species of salamander larvae are hatching in the pools, the young marbled salamanders are large enough to eat them. Life in a vernal pool can be a brutal business! Indeed, if at any point if there is not enough food, each of these species might even resort to cannibalism.

 Submitted by Paul Guay