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common name	Seed Shrimp
scientific name	many different vernal pool species, few with names
phylum	Arthropoda
subphylum	Crustacea
class	Ostracoda
order	Podocopida
habitat	vernal pools and freshwater marshes
size	0.1 mm to 0.5 cm long

description Many different species of Seed Shrimp live in vernal pools. They come in many colors. They have a single eye. The body of a Seed Shrimp is protected by two shells that form its carapace. The carapace [resembles](#) a seed, so they are called Seed Shrimp. The body inside the carapace is short with two sections, a head and a [thorax](#). The head has four pair of appendages (leg-like structures). The thorax has three more pair of appendages.

fun facts A common species of Seed Shrimp in Sacramento's vernal pools appears to be green. However, its shell is actually clear. The green color comes from the algae that live on its shell. The algae ride around on the Seed Shrimp as they cruise the pool for food.

life cycle When a vernal pool fills with water, the [cysts](#) of Seed Shrimp hatch. Out pops a [larva](#) from each cyst. The larva has a great big eye spot and looks nothing like the adult. When it is done growing, the larva [metamorphoses](#) into the adult form.

Seed Shrimp that live in shallow vernal pools must grow up quickly to reproduce before the pool dries. If their vernal pool suddenly begins to dry up, they quickly enter a kind of hibernation. They tightly shut their carapaces and wait for rain to refill the pool. They cannot hibernate through the whole summer though!

Seed Shrimp that live in deep vernal pools have more time to grow up. The water in deep pools can last for months. This gives the Seed Shrimp time to

mature and produce more generations of Seed Shrimp during a single wet phase. Like Water Fleas, female Seed Shrimp can make many daughters that are exact copies of themselves without mating! This is a neat trick called [parthenogenesis](#).

When vernal pools start to evaporate and the water gets warm, Seed Shrimp (like Water Fleas) mate and produce a special cyst that can survive on the bottom of a vernal pool during the long, hot summer. Some of the cysts will hatch next year. Others will not hatch for many years, waiting for just the right conditions.

ecology

Seed Shrimp are usually one of the most [abundant](#) crustaceans in a vernal pool. They live mostly at the bottom of the vernal pools. Most of their food comes from the zone where the water meets the bottom. They are filter feeders like Fairy Shrimp, Clam Shrimp, and Water Fleas. They sweep Bacteria, Algae, Protozoa, and small particles of detritus into their mouths with the fine hairs on their appendages. Seed Shrimp are eaten by Tadpole Shrimp, Water Mites, Mallards and other ducks, as well as [wading birds](#) such as the Great Egret.

investigate

- When you visit vernal pools, look for a species of green Seed Shrimp the size of the dot at the beginning of this paragraph. Would you expect to find more Seed Shrimp in a sample of water collected from the surface of a vernal pool or from the bottom?

The larva of the Seed Shrimp looks a bit like the larva of a Water Flea. Check out the photo of a Water Flea larva on page 18 of your reading "The Three Phases of the Vernal Pool Ecosystem - The Wet Phase: Winter in the Vernal Pools".

