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common name

Clam Shrimp

scientific name

Cyzicus californicus
(California Clam Shrimp)
Lynceus brachyurus
(Lentil Clam Shrimp)

phylum

Arthropoda

subphylum

Crustacea

class

Branchiopoda

order

Conchostraca

habitat

seasonal wetlands including vernal pools, vernal swales and watering ponds (for cattle)

size

Cyzicus up to 2 cm long
Lynceus up to 0.4 cm long

description

A Clam Shrimp looks like a small clam. Two shells cover its body. Between the shells you can see two body sections below the head. The front section is the [thorax](#) and the back section is the [abdomen](#). The Clam Shrimp has 14 pair of appendages that look like legs. The appendages help the Clam Shrimp to swim, but they are mostly used for collecting food and oxygen.

description (continued)

The California Clam Shrimp is yellow to brown. It is flat and about the size of a dime when it is fully grown. The Lentil Clam Shrimp is smaller and more round. It is shaped like a lentil (a small, flat pea).

fun facts

The Clam Shrimp's appendages are covered with feathery gills. The Clam Shrimp moves them through the water to make a current. This current is strong enough to pull tiny particles of food toward the Clam Shrimp. In this way, a Clam Shrimp can stay in one place and feed.

life cycle

Clam Shrimp mate before their vernal pool dries up. The female lays her [cysts](#), which survive the long, hot summer in dried mud. These cysts hatch when the pool fills with rainwater. The larva of a Clam Shrimp looks nothing like an adult. It will go through several larval stages before it gets a shell.

A Clam Shrimp soon outgrows its first shell. It sheds the old shell and replaces it with a new soft shell. The soft shell stretches and hardens to fit the Clam Shrimp's bigger body. This process is called [molting](#). As the Clam Shrimp continues to grow, it will molt several more times. The adults can live for several months, or until the water is gone.

ecology

California Clam Shrimp are one of the largest crustaceans in Sacramento's vernal pools. They live only in big or deep vernal pools because they take a long time to mature and reproduce. In Sacramento, the pools that dry up before May rarely have California Clam Shrimp.

Clam Shrimp are [omnivores](#), meaning they eat both plants and animals. They eat Algae, detritus, Bacteria, Protozoa and Rotifers. The California Clam Shrimp feeds in three ways. It can nibble on the Algae growing on plants or on the bottom of the vernal pool. It can bury itself in the muddy bottom and draw in food by waving its feathery appendages. It can also swim and filter food as it moves through the water. Clam Shrimp are strong swimmers but they usually only swim short distances.

Clam Shrimp are eaten by [amphibians](#), such as the Western Spadefoot, Pacific Chorus Frog and California Tiger Salamander. Other predators include Mallards and other ducks, [shore birds](#) like the Killdeer, Great Blue Herons, Great Egrets and other [wading birds](#). The protein from Clam Shrimp provides important nutrition for migrating birds. They visit the vernal pools to quickly gather the nutrients they need to grow new feathers, migrate and lay their eggs.

investigate

Clam Shrimp filter feed in the same way as Fairy Shrimp and Tadpole Shrimp. Do they eat the same kinds of food? Are they eaten by the same predators? Talk with the Fairy Shrimp and Tadpole Shrimp experts in your class to find out.

California Clam Shrimp are one of the few crustaceans that you can find after the vernal pools dry up. Their large shells remain on the pool bottom after they die. If you walk and look carefully, you can find them lying there.

If you had to look in every vernal pool for Clam Shrimp shells, it would take a lot of time. It would be better to look only in vernal pools that are likely to have Clam Shrimp. What do you know about the ecology of Clam Shrimp that tells you what kind of pools to look in?