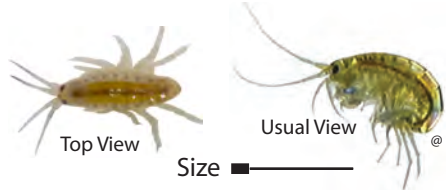




# Watsonville Wetlands Watch Aquatic Field Guide

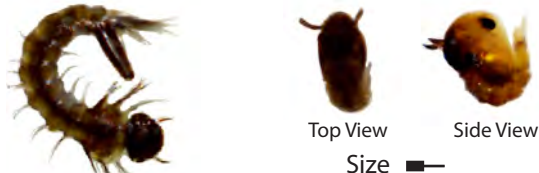
## Common Freshwater Invertebrates of Santa Cruz County

Approximate size		G= Group, G1= Sensitive to pollution G2= Some what sensitive G3= Pollution tolerant
Minimum	Usual Maximum	



### Scud (Amphipoda) G2

Very common. Quickly swims anywhere in the sample. 16 legs and multiple antennae. Body flattened side to side with arched back.



### Mosquito Larva G3

Head and thorax larger than rest of body. Very hairy. Thrashes back and forth and floats to surface. May find the molted skin.



### Mosquito Pupa G3

Floats on surface like in top view unless disturbed.



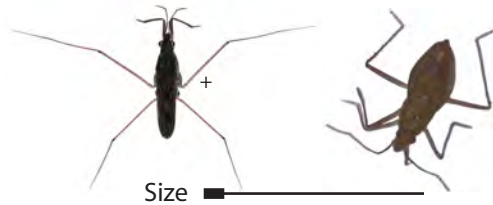
### Back Swimmer G3

Swims on its back. Hind legs are very long, oar-like and hairy. Pointed abdomen. Can be found quickly swimming around anywhere in water sample.



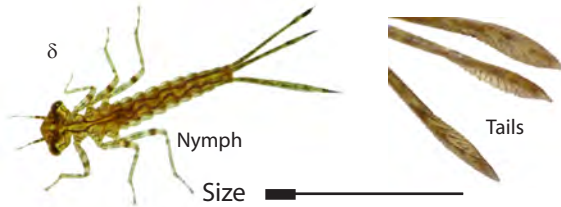
### Water Boatmen G3

Look like back swimmers, but swim on their stomachs. End of abdomen more rounded than BS. Can be found quickly swimming around anywhere in water sample.



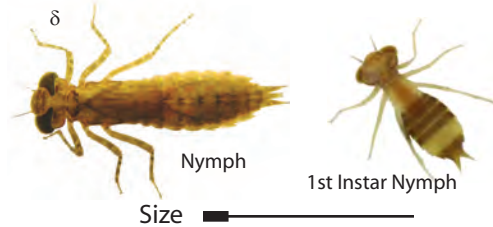
### Water Striders no G

Walks on water. Because they don't live in the water they are not useful indicators of water quality.



### Damselfly Nymph G2

Six legs, 3 feathery tails (actually gills) easily broken off. Hides in vegetation on surface.



### Dragonfly Nymph G2

Six legs. Hides in vegetation on surface. Up to 2 in.



### Midge and No-see-um Larvae G3

Worm-like but with head & eyes. Midges have small front and back legs. Head may be darker than body. Colors include: tan, red, white, green. Whips back and forth. Find in the bottom of the water tub.



### Pouch Snail (Physid) G2

With pointy side up, shell opening is to the left when facing you. Find crawling on side of bucket in the water.



### Ramshorn Snail (Planorbis) G2

Flat shell coils in one plane. Find crawling on side of bucket in the water.

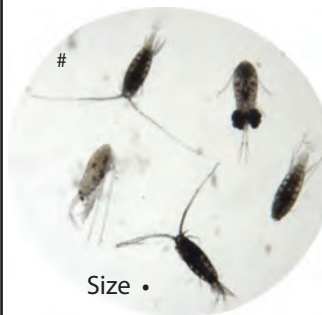


### Pond Snail (Lymnaea) G2

With the point end up and opening facing you, it opens to the right, no operculum.

## Common Small Zooplankton

The size of a grain of sand.



### Copepods G3

Tiny. Shaped like a grain of rice. Have antennae and multiple tails.



### Seed Shrimp (Ostracod) G2

Tiny. 2 sets of antennae. Looks like a seed swimming in circles in the top inch of water.

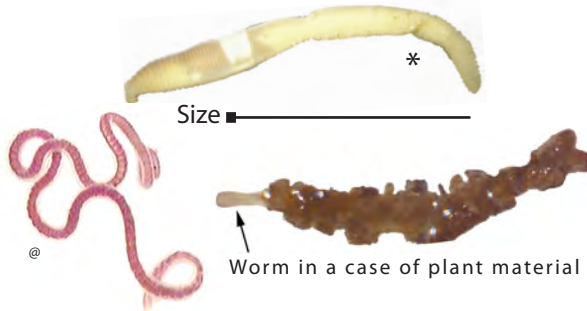


### Water Fleas (Daphnia/Cladocera) G3

Tiny, looks like a fat canary. Swims in surges to a spot and stops, then repeats. Can find in top inch of water.

# Less Common Freshwater Invertebrates of Santa Cruz County

G = Group	Approximate size	
G1= Sensitive to pollution	Minimum	Usual Maximum
G2= Some what sensitive		
G3= Pollution tolerant		



## Aquatic Worms G3

Segmented, tubular/round bodies. No legs or eyes. Various colors. 5 inches max. Sometimes can find in small tubes of plant material (1/8in long) along the surface edge of the water bin (look for movement).



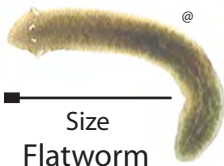
## Leech G3

Flat slimy body with segments and no legs. Various colors including black, brown or patterned. Narrower end is the head. Suction pads on each end. Often moves by stretching out one end, using suction pad and pulling rest of body along. Find stuck on bottom of tub.



## Giant Water Bug G3

Large (up to 2 in.) with 6 legs. Front legs can pinch.



## Flatworm (Planarian) G1

Arrow shaped head with two eyes on top. No segments or legs. Flat body. Various colors.



## Dobsonfly Larva G1

Large pinching jaws, 6 legs, 8 pairs of filaments on lower half of body with paired cotton-like gill tufts along underside. Up to 6 inches.



## Water Scavenger Beetle G2.

Many varieties. Adults have a shiny carapace often brown or black. Looks like has 2 sets of antennae. Larvae have large toothed mandibles, no tail. Both have 6 legs.



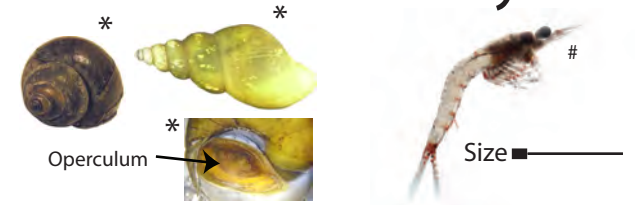
## Whirligig Beetle G2

Adults have 2 sets of eyes divided into upper and lower eyes. Antennae are short cones. Shiny carapace usually black. Front legs are long and hooked. Larvae vary in color (may be white) they have many filaments extending from the sides & 4 hooks at the end of the body. Both have 6 legs.



## Predaceous Diving Beetle G2.

Many varieties. Adult has long hairs on hind legs. Usually shiny brown, olive, black or patterned carapace. Long thin antennae. Swim by kicking back legs simultaneously. Larvae also varied, with different coloration. Have 2 hairy tails (long or short). Have strong pinchers. Both have 6 legs.



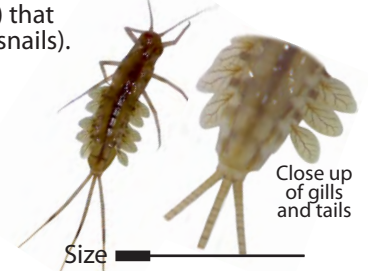
## Gilled Snails G2

Various shapes. All have an operculum (a small plate) that covers the opening in live snails).



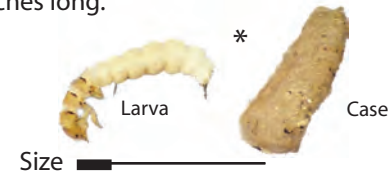
## Crayfish G2

2 large claws, 8 legs. Looks like a small lobster. Up to 6 inches long.



## Mayfly Nymph G1

Feathery gills on lower body, 6 large hooked legs, 2 antennae, 2 or 3 long hair-like tails.

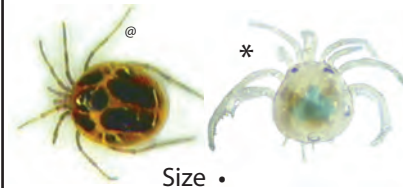


## Caddisfly Larva G1

Hooked legs on upper third of body. 2 hooks at back end. Usually in a case made of local material (leaves, sand, sticks or mud) with head sticking out.

## Small Zooplankton

The size of a grain of sand.

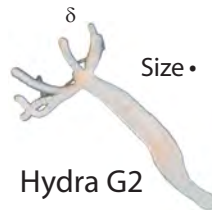


## Water Mites G2

Tiny. Looks like a small spider. 8 legs. Many colors including red, tan, clear or patterned.



## Fish Lice G2



## Hydra G2