

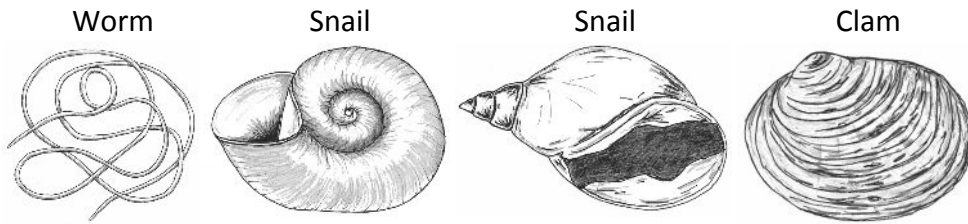
CBP BENTHIC MACROINVERTEBRATE SUBSAMPLING GUIDELINES



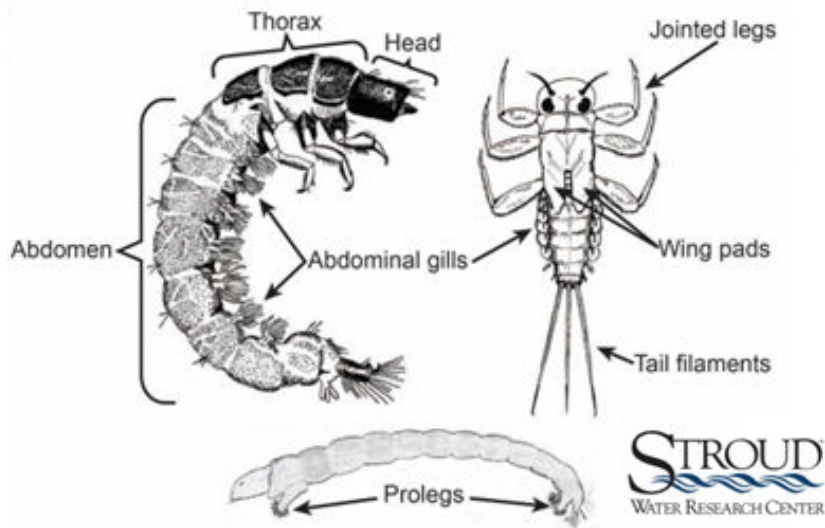
What To Include

- Whole and complete benthic macroinvertebrate organisms

Shelled organisms (clams, snails)



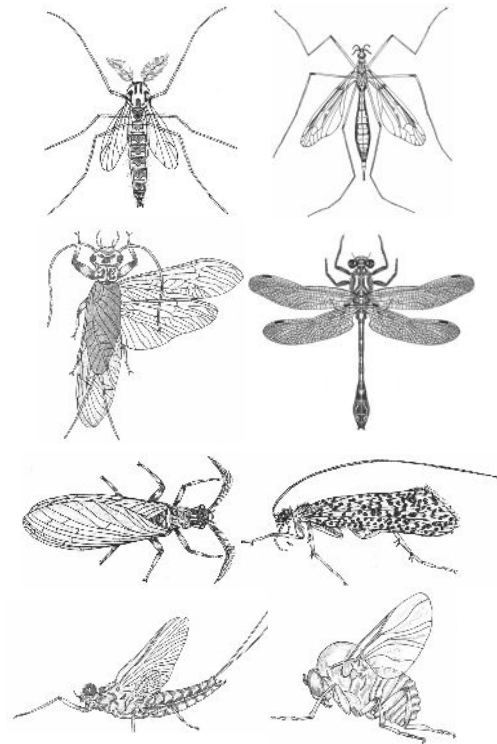
Larvae & Worms



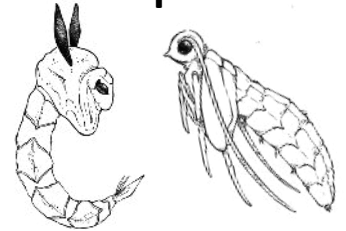
Don't Include

- Headless and/or cut organisms
- Leaves, twigs, rocks, or other debris

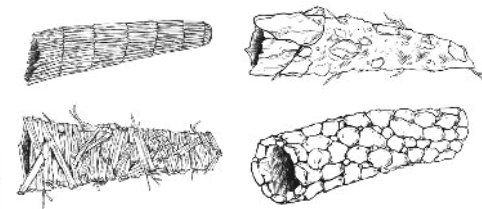
Adults



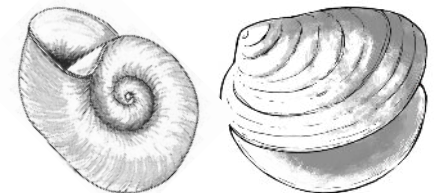
Pupas



Empty Caddisfly Cases



Empty Shells



MACROINVERTEBRATE SIZE CHART

Macroinvertebrates may be smaller or larger than the pictures.
Actual size ranges are listed.

Very Small

-  Midge 1/8 to 1/4 in
-  Blackfly 1/8 to 1/4 in
-  Riffle Beetle (Larvae) 1/8 to 1/2 in
-  Riffle Beetle (Adult) 1/16 to 1/8 in



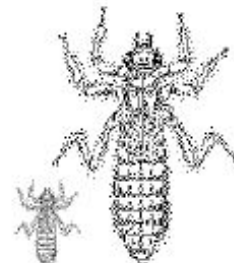

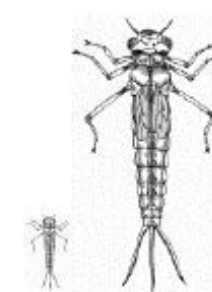

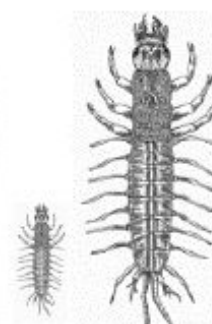
Small

-  Scud 1/8 to 1/4 in
-  Sowbug 1/4 to 3/4 in
-  Water Penny 1/4 to 1/2 in
-  Net-spinning Caddisfly 1/4 to 1 in
-  Leech 1/4 to 2 in
-  Worm 1/4 to 2 in
-  Watersnipe Fly 1/4 to 1 in

Size Varies

-  Mayfly 1/4 to 1 in
-  Caddisfly 1/2 to 1 1/2 in
-  Alderfly 1/2 to 1 1/2 in
-  Gilled Snail 1/16 to 3/4 in
-  Lunged (orb) Snail 1/8 to 1 in
-  Clams & Mussels 1/8 to 5 in

Large

-  Crayfish 1/2 to 5 in
-  Dobsonfly (Hellgramite) 3/4 to 4 in
-  Dragonfly 1/2 to 2 in
-  Crane Fly 1/3 to 2 1/2 in
-  Damselfly 1/2 to 2 in
-  Stonefly 1/2 to 1 1/2 in
-  Fishfly 3/4 to 4 in