

Stream Insects and Crustaceans ID Card

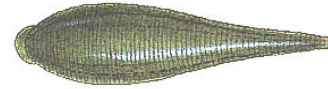
Lines under picture indicate the relative size of organisms



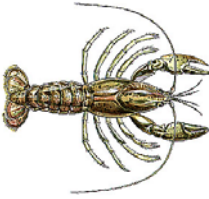
Aquatic Worm:
Class Oligochaeta
 $\frac{1}{4}$ " - 2", can be very tiny;
 thin, wormlike body, tolerant of
 impairment



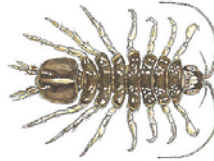
Flat Worm:
Family Planaridae
 Up to $\frac{1}{4}$ ", soft body,
 may have distinct head with
 eyespots, tolerant of impairment



Leech:
Order Hirudinea
 $\frac{1}{4}$ " - 2", segmented body,
 suction cups on both ends,
 tolerant of impairment



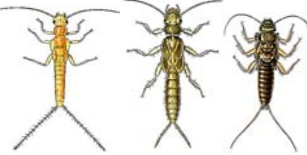
Crayfish: Order Decapoda
 Up to 6", 2 large claws, 8 legs, resembles
 a small lobster, somewhat tolerant of
 impairment



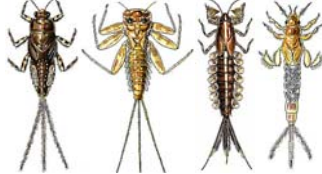
Sowbug: Order Isopoda
 $\frac{1}{4}$ " - $\frac{3}{4}$ ", gray oblong body wider
 than it is high, more than 6
 legs, long antennae, somewhat
 tolerant of impairment



Scud: Order Amphipoda
 $\frac{1}{4}$ ", white to gray, body
 higher than it is wide,
 swims sideways, more than
 6 legs, resembles small
 shrimp, somewhat tolerant
 of impairment



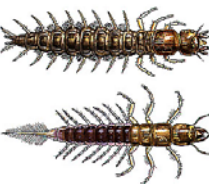
Stonefly: Order Plecoptera
 $\frac{1}{2}$ " - 1 $\frac{1}{2}$ ", 6 legs with hooked
 tips, antennae, 2 hair-like tails,
 no gills on abdomen, very
 intolerant of impairment



Mayfly:
Order Ephemeroptera
 $\frac{1}{4}$ " - 1", plate-like or feathery gills
 on abdomen, 6 hooked legs, 2 or 3
 long hair-like tails, tails may be
 webbed together, very intolerant
 of impairment



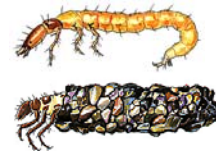
Beetles: Order Coleoptera
 $\frac{1}{4}$ " - 1", disk-like oval body with 6 small
 legs and gill tufts on underside OR
 small black beetle crawling on
 streambed OR comma-like brown
 "crunchy" body with 6 legs on upper
 1/3 and possibly gill tuft on back end,
 OR (miscellaneous body form - rare),
 somewhat tolerant of impairment



Hellgrammite, Fishfly, and Alderfly:
Order Megaloptera
 $\frac{3}{4}$ " - 4", 6 legs, large pinching jaws, 8
 pairs of feelers along abdomen, 2 hooks
 on tail end OR 1 single spiky tail,
 somewhat tolerant of impairment




Common Netspinners:
Family Hydropsychidae
 Up to $\frac{3}{4}$ ", 6 hooked legs on
 upper 1/3 of body, 2 hooks at
 back end, underside of
 abdomen with white tufts of
 gills, somewhat tolerant of
 impairment




Most Caddisfly:
Order Trichoptera
 Up to 1", 6 hooked legs on
 upper 1/3 of body, may be in
 stick, rock or leaf case, no
 gill tufts on abdomen,
 intolerant of impairment

Stream Insects and Crustaceans ID Card

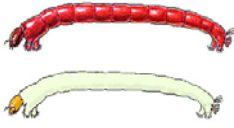
Lines under picture indicate the relative size of organisms




Dragonfly and Damselfly:
Order Odonata
 $\frac{1}{2}$ " - 2", large eyes, 6 hooked legs, large protracting lower jaw, 3 broad oar-shaped tails OR wide oval to round abdomen, somewhat tolerant of impairment



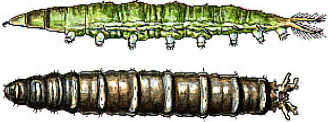
Dragonfly:
Family Gomphidae
 $\frac{1}{2}$ " - 2", large eyes, 6 hooked legs, large protracting FLAT lower jaw, wide oval to round abdomen, short stubby antennae that are parallel to each other, intolerant of impairment




Midges:
Family Chironomidae
 Up to $\frac{1}{4}$ ", distinct head, worm-like segmented body, 2 leg-like projections on each side, often whitish to clear, occasionally bright red, tolerant of impairment



Black Fly: Family Simuliidae
 Up to $\frac{1}{4}$ ", end of body wider (like bowling pin), distinctive head, sucker on end, tolerant of impairment



Most True Flies:
Order Diptera
 $\frac{1}{4}$ " - 2", bodies plump and maggot-like, may have caterpillar like "legs" along body, may have lobes or conical tails on end, tolerant of impairment



Gilled Snails:
Class Gastropoda
 Up to $\frac{3}{4}$ ", shell opening covered by a thin plate called an operculum, with helix pointed up shell opens to the right, intolerant of impairment

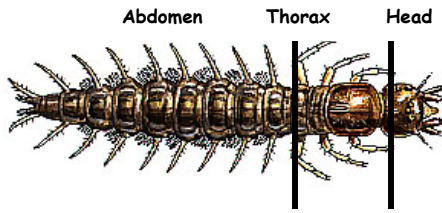


Lunged Snails:
Class Gastropoda
 Up to $\frac{3}{4}$ ", no operculum, with helix pointed up shell opens to the left, tolerant of impairment




Clams:
Class Bivalvia
 Up to $\frac{3}{4}$ ", fleshy body enclosed between two clamped together shells (if clam is alive, shells cannot be pried apart without harming clam), somewhat tolerant of impairment

Glossary:



Tails: There are many different kinds of macroinvertebrate tails. The thin thread-like tails found on stoneflies and mayflies are called cerci. The oar-shaped tails found on a damselfly are not really tails - they are actually gills called caudal lamellae!



VA Save Our Streams Program
 VA Division of the Izaak Walton League of America
 P.O. Box 8297
 Richmond, VA 23226
 (804) 615-5036 www.vasos.org

These sheets are modified from the National Izaak Walton League of America SOS Program Stream Insects & Crustaceans ID Card.
<http://www.iwla.org/SOS/index.html>

Illustrations from: Voshell, J. R., Jr. 2001. Guide to the Common Freshwater Invertebrates of North America. MacDonald and Woodward Publishing Co. With permission of the author.