

Stream Insects and Crustaceans ID Card

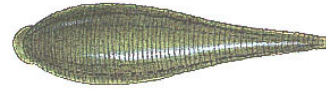
Lines under picture indicate the relative size of organisms



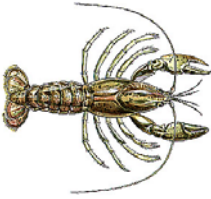
Aquatic Worm:
Class Oligochaeta
 $\frac{1}{4}$ " - 2", can be very tiny;
thin, wormlike body, tolerant of
impairment



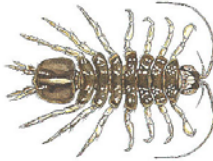
Flat Worm:
Family Planaridae
Up to $\frac{1}{4}$ ", soft body,
may have distinct head with
eyespots, tolerant of impairment



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



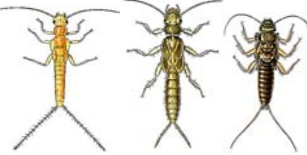
Crayfish: Order Decapoda
Up to 6", 2 large claws, 8 legs, resembles
a small lobster, somewhat tolerant of
impairment



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



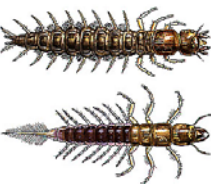
Stonefly: Order Plecoptera
 $\frac{1}{2}$ " - 1 $\frac{1}{2}$ ", 6 legs with hooked
tips, antennae, 2 hair-like tails,
no gills on abdomen, very
intolerant of impairment



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



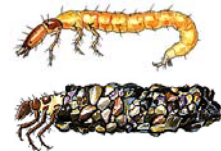
Beetles: Order Coleoptera
 $\frac{1}{4}$ " - 1", disk-like oval body with 6 small
legs and gill tufts on underside OR
small black beetle crawling on
streambed OR comma-like brown
"crunchy" body with 6 legs on upper
1/3 and possibly gill tuft on back end,
OR (miscellaneous body form - rare),
somewhat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

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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



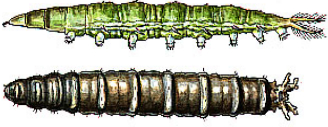
Dragonfly:
Family Gomphidae
 $\frac{1}{2}$ " - 2", large eyes, 6 hooked legs, large protracting FLAT lower jaw, wide oval to round abdomen, short stubby antennae that are parallel to each other, intolerant of impairment



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

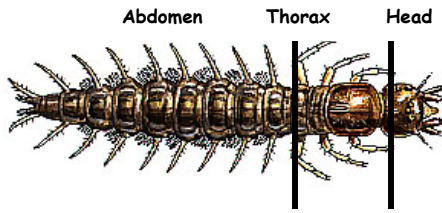


Lunged Snails:
Class Gastropoda
 Up to $\frac{3}{4}$ ", no operculum, with helix pointed up shell opens to the left, tolerant of impairment




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!



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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>