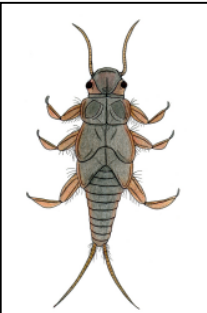




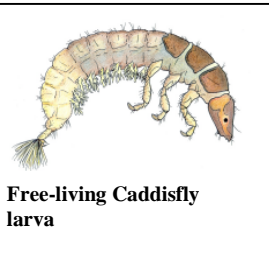
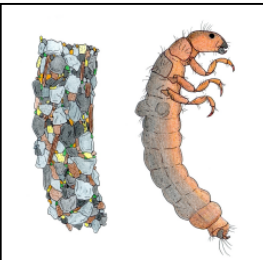
Mayfly Nymph (Order Ephemeroptera):

- Gills are often visible along the abdomen.
- Has three tails (but some mayflies have two tails).
- Strong swimmers
- Mayfly diversity declines as streams are degraded



Stonefly Nymph (Order Plecoptera):

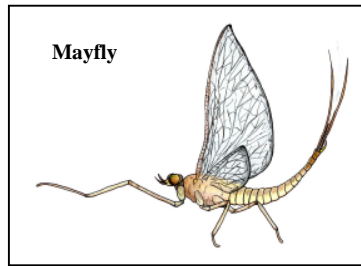
- Typically found on or near stones in the stream.
- Look similar to mayflies but are stockier.
- Stonefly diversity declines rapidly at the first signs of human disturbance.



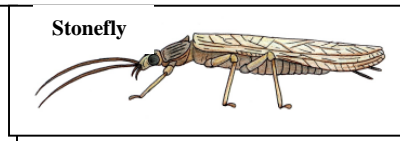
Free-living Caddisfly larva

Caddisfly larvae (Order Trichoptera):

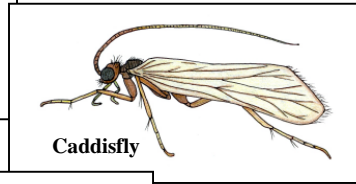
- Use silk to build cases from gravel, twigs, needles, or sand.
- Different species build distinct cases.
- Free-living caddisfly larvae do not build cases.
- Some caddisflies are very sensitive to human disturbance; others are tolerant.



Mayfly



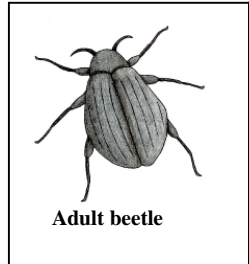
Stonefly



Caddisfly

Adult Mayfly, Stonefly and Caddisfly:

- Leave the water to mate as winged adults.



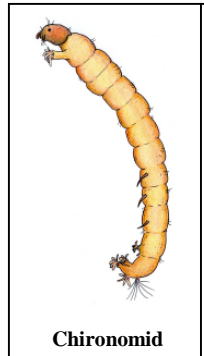
Adult beetle



Larva

Riffle Beetles (Order Coleoptera):

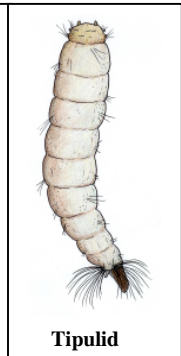
- Specially adapted to cling to smooth rocks in fast-flowing water (riffles).
- Both the larvae and adults are rather small, dark-coloured, and tend to drift to the bottom of a sample so they may be hard to see.



Chironomid



Simuliid



Tipulid

Fly Larvae (Order Diptera):

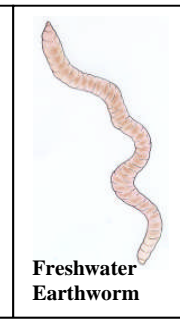
- Midge larvae (or chironomids) are very small, often C-shaped, and have a spastic squirming movement. They are often attached to debris by their tiny legs.
- Black fly larvae (or simuliids) are dumb-bell shaped and soft. They attach themselves to the substrate and prefer soft sediment.
- Crane fly larvae (or tipulids) are large and fleshy with very short "tentacles" at one end.



Flatworm



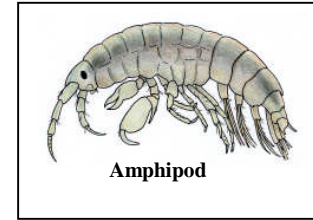
Nematode



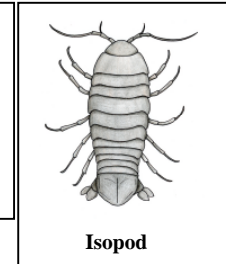
Freshwater Earthworm

Aquatic Worms:

- Long and thin and writhe like snakes.
- Do not have legs.



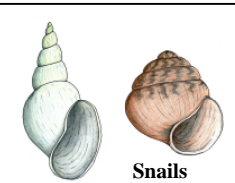
Amphipod



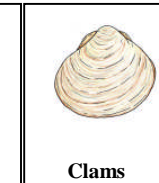
Isopod

Crustaceans:

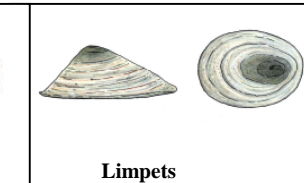
- Amphipods (usually "Gammarus") are very fast swimmers that look like shrimp.
- High proportions of these animals are present in moderate – very polluted sites.
- Isopods are usually found creeping through leaf litter.



Snails



Clams



Limpets

Molluscs (Classes Gastropoda and Pelecypoda):

- All freshwater molluscs have hard shells.
- Some may cling to rocks and stones whereas others prefer to burrow into the ground.



Leeches (Subclass Hirudinea):

- Segmented worms and are closely related to earthworms.
- Have a powerful clinging sucker at each end of their bodies and often feed as blood sucking parasites.