Key to Common Macroinvertebrates

- sessile
- mobile

- Hydra
  usually attached to plants or rocks

- sessile
- mobile

- no visible segments
- segmented

- Flatworms
  free moving

- no leg joints
- single shell
- double shell

- jointed legs
- no leg joints

- Flatworms
  no shell
- shell

- many segments
- less than 15 segments

- Worms and Leeches
- Mussels and Clams

- more than 3 pairs of legs
- 3 pairs of legs

- with wings
- without wings

- Midge, Mosquito or Fly Larvae
- Adult Water Beetles

- 4 pair
- more than 4 pair

- Water Mites
  large claws
  small or no claws

- Crayfish
  walks on side
  swims on side

- Aquatic Isopod
  walks
  swims upright

- Water Fleas
  swims under water

- Water Striders
  long, grasping
  ear-like legs
  front legs

- Backswimmers and Water Boatman

- Water Scorpion and Giant Water Bugs
  3 tails

- less than 3 tails

- 2 tails

- more than 3 tails

- Caddisfly Nymphs
  large body, no case

- Stonefly Nymphs
  big pincher-like mouthparts
  mouthparts barely visible

- Water Beetle Larvae

- Dragonfly Nymphs
  long & slender
  gills on side of abdomen

- Damselfly Nymphs

- Mayfly Nymphs
**Macroinvertebrate Identification Page**

- Hydrae
- Flatworms
- Snails
- Clams
- Worms and Leeches
- Midge, Mosquito and Fly Larvae
- Water Mites
- Crayfish
- Water Boatmen and Backswimmers
- Water Striders
- Water Beetles
- Scuds
- Aquatic Isopod
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- Dragonfly Nymphs
- Caddisfly Nymphs
- Water Beetle Larvae
- Stonefly Nymphs
- Damselfly Nymphs
- Mayfly Nymphs
- Water Scorpion
- Giant Water Bug
### Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Abdomen</td>
<td>The back section of an insect. The abdomen contains the digestive system, has tails attached, and gills or spiracles.</td>
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<tr>
<td>Benthic</td>
<td>Describing organisms that live on or near the bottom of a body of water.</td>
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<tr>
<td>Exoskeleton</td>
<td>An external covering that protects and shapes the animal's body. Flexibility is provided by joints or segments. This is different from a shell, like clams or snails have.</td>
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<tr>
<td>Invertebrate</td>
<td>An animal without a backbone. Vertebrates are animals with backbones. Invertebrates vastly outnumber vertebrates, which include only fish, reptiles, amphibians, birds and mammals.</td>
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<tr>
<td>Larva</td>
<td>The immature stage of an insect that undergoes complete metamorphosis, often legless, always wingless.</td>
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<tr>
<td>Metamorphosis</td>
<td>The process of major changes in form that many animals undergo. Frogs metamorphose from egg to tadpole to frog, dragonflies change from egg to nymph to dragonfly. Incomplete metamorphosis undergoes three forms (like the frog or dragonfly), complete metamorphosis undergoes four stages (like a butterfly or beetle, this includes a pupa stage).</td>
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<tr>
<td>Mobile</td>
<td>Moving, or capable of moving.</td>
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<tr>
<td>Nymph</td>
<td>The immature stage of an insect that undergoes incomplete metamorphosis, always wingless.</td>
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<tr>
<td>Pupa</td>
<td>The stage in an insect's lifecycle that comes after larva- the insect is generally encased and helpless, undergoing a transformation into the adult form.</td>
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<tr>
<td>Segmented</td>
<td>The animal's body is divided into visible sections, either body parts (insects) or rings and sections (earthworm).</td>
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<tr>
<td>Sessile</td>
<td>Attached to the bottom or object. This animal does not move around in its environment.</td>
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<tr>
<td>Shell</td>
<td>A single or double hard casing protecting all of the soft body parts and tissues.</td>
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<tr>
<td>Spiracles</td>
<td>Openings on the sides of some insects abdomens that allow the exchange of gasses for breathing.</td>
</tr>
<tr>
<td>Thorax</td>
<td>The middle section of an insect- the thorax has the wings and legs attached (if present).</td>
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