

A **macroinvertebrate** is something that is big enough for you to see without a microscope. Most insects spend most of their life in water, then when they become an adult, they fly away from the water and live for just a few weeks.

Macro—means you can see it with your eyes

Invertebrate—means it does not have a backbone

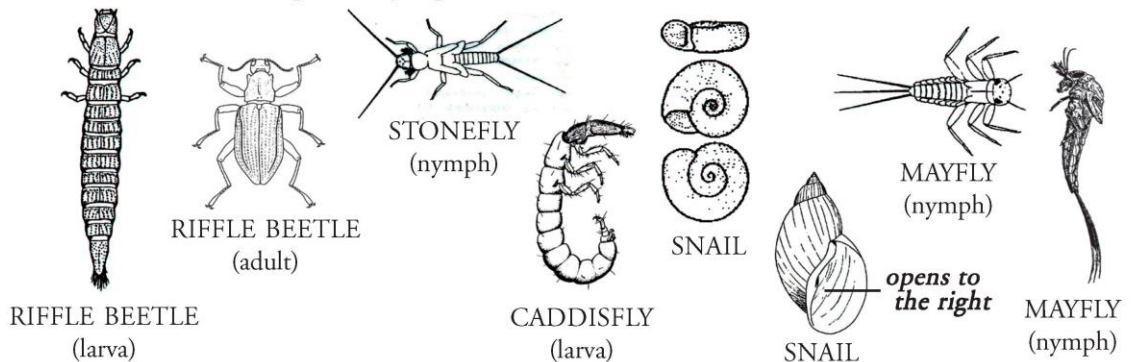
A **large net** is used to sample the water to check the number and kinds of macroinvertebrates. The scientist rubs the rocks and the macroinvertebrates wash onto the large net.



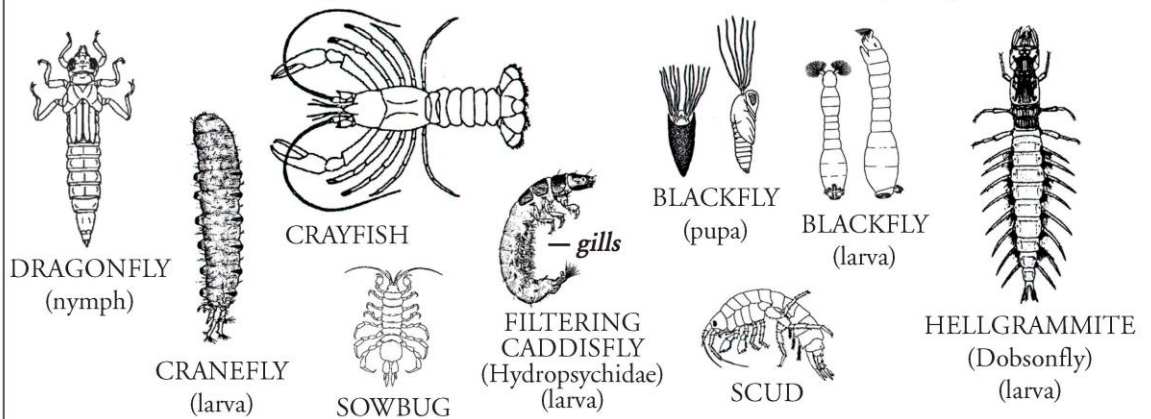
MACROINVERTEBRATE GROUPS

Beginner's Protocol - PICTURE KEY

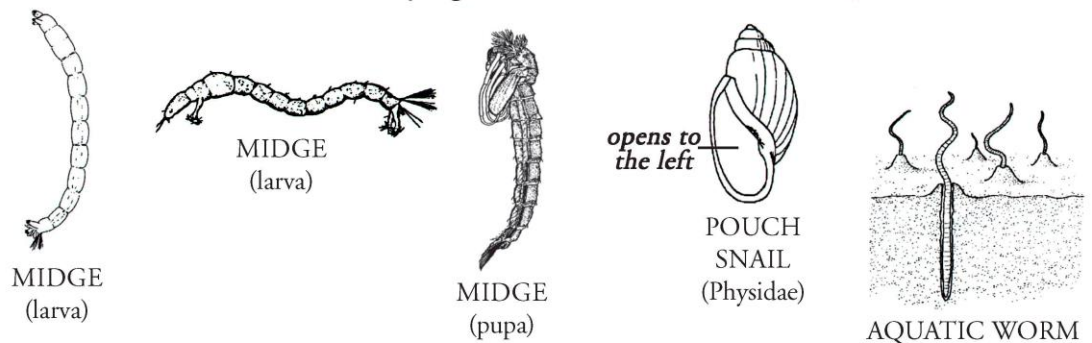
GROUP 1 *These organisms are generally pollution-intolerant. Their dominance generally signifies EXCELLENT-GOOD WATER QUALITY*



GROUP 2 *These organisms exist in a WIDE RANGE of water quality conditions*



GROUP 3 *These organisms are generally tolerant of pollution. Their dominance usually signifies FAIR-POOR WATER QUALITY*



Scientists study the **kind and number of macroinvertebrates** that are found in water samples from a stream to determine the health of the stream. **How?** In the picture key above, notice that **group one** says that the organisms are **pollution intolerant**. That means that they do not like pollution! The water has to be clean for them to live there. Finding these organisms is a sign of a healthy stream. **Group 2 organisms can exist in a wide range** of water conditions. They may be found in good water quality or fair-poor water quality. **Group 3 can live anywhere** and do not mind if the water is really nasty!