



Catch the Critter

Catch the Critter is a game all about using aquatic macroinvertebrates to find out the health of a stream. What is an aquatic macroinvertebrate? Let's look at what each word part means:

aquatic (lives in water) **macro** (big) **in** (no) **vertebrate** (backbone)

Basically, aquatic macroinvertebrates are any bugs that live in the water (“aquatic”), are big enough to see (“macro”) and have no backbone, so they either have a hard shell, or they’re just squishy (“invertebrate”). Scientists use the phrase “aquatic macroinvertebrate” just to be very clear about what they mean.

How to Set Up

1. Print out the critter card pages. You may want to print them out on a thick paper, and/or decorate the back of the sheet with a pattern or design.
2. Cut out all the critter cards. You should have 26 total cards – 2 each of 13 critters.

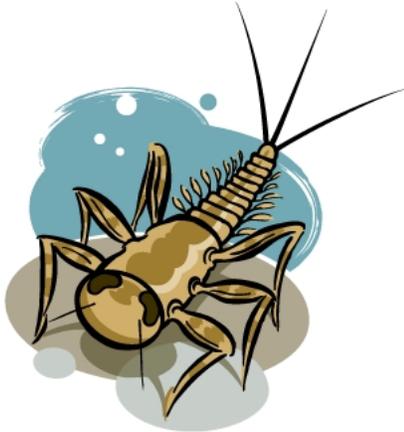
How to Play

1. Place all the cards face down on the floor or table where you are playing and mix them up.
2. The youngest player goes first and turns over any two cards.
3. Do those two cards match? (see below)
 - Yes!** – Congratulations! Take those two cards for your own stack, and try again.
 - No.** – OK. Turn those two cards back over and let the next person try.
4. Play until all the cards are gone from the middle.
5. Use the scoresheet on the next page to figure out who won!

Now, imagine that each player is a trout stream.

The cards each player has are all the critters that live in his or her waters.

The other page is a worksheet to help you figure out who won by having the healthiest stream. Be sure to notice why some macroinvertebrates are worth more points than others.



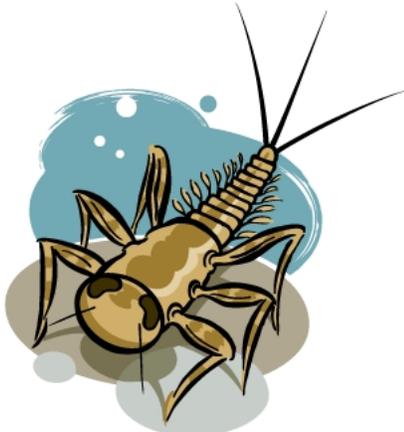
Mayfly Larva



Dragonfly Larva



Catch the Critter



Mayfly Larva



Dragonfly Larva



Scud



Stonefly Larva



Leech



Scud



Stonefly Larva



Leech



Waterpenny Larva



Caddisfly Larva



Crayfish



Waterpenny Larva



Caddisfly Larva



Crayfish



Blackfly Larva



Dobsonfly Larva



Dobsonfly Larva



Blackfly Larva



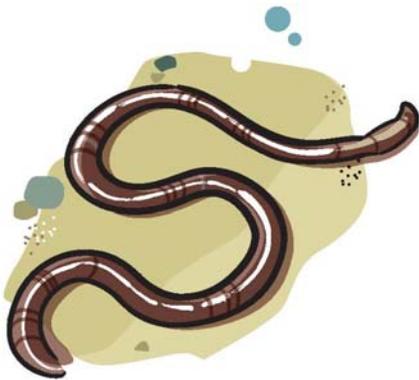
Clam



Clam



Midge



Worm



Worm



Midge

Player Name: _____

Now, imagine that you are a trout stream and the cards in your stack are the critters living in your stream. Let's see how healthy you are by looking at those critters.

In each blank, write the number of critter cards you have of that type. Then, do the math. Your cards can be divided into three groups:

Group I: VERY pollution-sensitive

Some macroinvertebrates are very sensitive to pollution. They only live in clean coldwater streams. Clean-stream-only macroinvertebrates include:

Mayfly Larva _____ x 3 = _____ points

Stonefly Larva _____ x 3 = _____ points

Caddisfly Larva _____ x 3 = _____ points

Group I total points:

GROUP III: NOT pollution-sensitive

Some macroinvertebrates are not sensitive at all. They can live in warm, dirty, polluted streams. Any-stream macroinvertebrates include:

Worm _____ x 1 = _____ points

Midge Larva _____ x 1 = _____ points

Leech _____ x 1 = _____ points

Group III total points:

Group II: SOMEWHAT pollution-sensitive

Some macroinvertebrates are only a little sensitive. They can live in streams that have a little pollution. Examples of these macroinvertebrates include:

Dobsonfly Larva _____ x 2 = _____ points

Dragonfly Larva _____ x 2 = _____ points

Crayfish _____ x 2 = _____ points

Clam _____ x 2 = _____ points

Waterpenny Larva _____ x 2 = _____ points

Blackfly Larva _____ x 2 = _____ points

Scud _____ x 2 = _____ points

Group II total points:



What is the total score for your stream?

It is good for streams to have many macroinvertebrates.
It is good for streams to have many types of macroinvertebrates.
It is an especially good sign if a stream has a lot of Group I macroinvertebrates.

+ + =

Group I points Group II points Group III points

← your total points



The healthiest stream with the most points wins!