



## 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.

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!**