Make Your Own Dip Net: Search for Tiny Creatures

Find tiny creatures living in the water as you explore the St. Joseph River with your homemade dip net. You will be amazed at what you find and what it can tell you about the health of that ecosystem.

**Ages** 7 and up, with adult supervision

**Location** The St. Joseph River or any waterway with safe access to edge. Stream, pond, river, lake, ditch, marsh, etc..

**Materials Needed**

- one wire coat hanger
- duct tape
- white plastic spoons
- 2-3-foot long stick or pole
- one nylon knee-high
- light-colored dishpan, bowl or bucket
- macroinvertebrate list (see attached)

**Background Info** A dip net is a fun tool to explore a stream, pond or lake edge to see what benthic macroinvertebrates are living there. Benthic macroinvertebrates are small animals that are still big enough (macro) to see with the naked eye. They lack backbones (invertebrate) and live at least part of their lives in or on the bottom (benthic) of a body of water. A few common macroinvertebrates found in the St. Joseph River watershed are mayflies, caddisflies, dragonflies, beetles, snails, clams and crayfish.

Not only are benthic macroinvertebrates a crucial part of an aquatic food web, their presence also help us determine water quality. Some can only survive in non-polluted waters, while others are incredibly tolerant of pollution and can live almost anywhere. Because of these differing tolerance levels, what you catch with your dip net can also tell you the general water quality of that waterway at that time.

**Instructions**

Gather the first four items from the materials list above: hanger, knee-high, duct tape and sturdy stick.

Bend the coat hanger to this shape. (A stretched out square)
How to Use Your Dip Net
Ask an adult’s permission to go close to the water...or better yet, take them with you!

**Bring** a light-colored dishpan, bowl or bucket and put approx. 1-2 inches of clear water in it.

**Scoop** into the water with your dip net. Into algae and weeds is best....that is where the macroinvertebrates like to hide!

**Search** closely for “anything that wiggles” in your net, and put it gently into your bowl/bucket. If you keep the water clear you can watch them swim around and they will be easier to identify.

**Pick** each macroinvertebrate up with the spoon to get a closer look.

**Identify** the macroinvertebrates using the chart below. Which group are they in on the chart? This will give you an idea of what the water quality is for that particular waterway.

**Return** your scoopings to the river or waterway when you’re done observing and identifying.

Want to Learn More?
Hoosier Riverwatch is a volunteer stream-monitoring program with resources for identification and understanding what you find. [www.hoosierriverwatch.com](http://www.hoosierriverwatch.com)

Online quiz to help with identification practice! [https://www.macroinvertebrates.org/quiz/](https://www.macroinvertebrates.org/quiz/)

Quick macroinvertebrate identification quiz by Alleghany College, Pennsylvania [https://sites.allegheny.edu/creekconnections/classroom-resources/macroinvertebrate-identification-game/](https://sites.allegheny.edu/creekconnections/classroom-resources/macroinvertebrate-identification-game/)

A set of resources about “visiting a wetland,” one of 52 activities highlighted for families to enjoy and engage with the outdoors. This list was created through a collaboration of northern Indiana environmental educators. [https://52thingsoutside.org/summer/visit-a-wetland/](https://52thingsoutside.org/summer/visit-a-wetland/)

Share a pic on social media when you do this activity! #CelebrateTheStJoe