

A Simple Net for Collecting Aquatic Insects

It's been too long since I last posted a tutorial for my Insect Collections series, so today I'm going to share my best secret for collecting aquatic insects. A lot of people overlook aquatic insects when they work on their collections. It's a shame really - there are some fantastic insects in water if you take a few minutes to look! I think part of the problem is that most people think you need to have fancy nets that cost \$60+ or other special, expensive equipment to collect in water. This couldn't be further from the truth! Today I'm going to show you how to make and use a reasonably sized, easy-to-carry aquatic net for collecting insects in water. Are you ready for this complicated design? Breathe in through your nose and out through your mouth to prepare your mind for the complicated steps this tutorial is going to involve. Ready? Then gather the things you need:

Essential Equipment



- one sturdy all metal kitchen strainer, preferably stainless steel. (A solid frame around the basket is essential, so make sure that part isn't going to collapse or separate from the handle if you put a little pressure on it.)

Whew! Are you tired yet? And if you want to be REALLY fancy, then you'll want these things as well:

Optional Equipment



- metal rod, stick, dowel, etc (my metal rod [came from Bioquip](#) and cost around \$8, but anything long and roundish that's reasonably comfy to hold will do. Avoid things that might give you splinters!)
- duct tape (any project worth its salt involves duct tape, so you know this is gonna be good!) or [waterproof tape](#)

Okay, you've gathered your equipment. Now let's put the net together (here comes the complicated step):



Completed net. (Note: the duct tape on the handle is there to identify this as my strainer when I'm out with my students on field trips. It has no other function.)

Congratulations! You now have a really great little net for catching aquatic insects!

Regardless of how dorky you look as you strain a pond or stream, soup strainers make *fantastic* aquatic insect nets! They have several advantages:

1. They're cheap. Look for sales and you can frequently get all metal strainers for less than \$10 at stores like Target, Wal-Mart, and Ross. Cheap is good. If one breaks, simply chuck it in the recycling bin and start using a new one. If you lose it, who cares?

2. The metal mesh doesn't get ripped the way aquatic nets do, so they're super durable.
3. Soup strainers are lightweight, so you can carry several with ease. I have a carabiner hooked onto my fishing vest that I loop through a couple of strainers when I'm out in the field.
4. They're easy to use. Trust me - it's hard to beat a soup strainer for collecting aquatic insects. I have [a fancy aquatic D-net](#) and I hardly ever use it. Instead, I use my soup strainers.

There are 2 downsides to using soup strainers though:

1. One is that the mesh size is large, so sometimes it is best to use the more expensive "official" aquatic insect net, especially if it is important to know the number or diversity of insects you pull out of the water.
2. They're short, so you have to get your hands wet to use them. That's not so bad if you live in AZ and the water rarely gets down below 40 degrees.

This is where the optional equipment comes in! Cut off a 12-15 inch long piece of duct tape and tape the handle of your strainer to your longish, roundish, pole-like object:



Tada! Now you've got yourself a nice long handle that keeps you well away from the water and allows you to collect in deeper water without getting wet. You'll need to replace the tape occasionally, but you'll get a lot of use out of your MacGyvered soup strainer before you do. If you spring for a more expensive roll of waterproof tape, it will last a lot longer.

Using your strainer is easy! In a stream, hold your strainer in the water so that it is downstream of the area you wish to sample. Stir the substrate up, either with your other hand, your foot, or with the front edge of the strainer. Let the loose material flow into the strainer bowl, pull the strainer out of the water, quickly sift through the material in your net, and pluck the insects out! (I recommend using [feather forceps](#) for handling aquatics as a lot of them are very soft-bodied and you don't want to crush them.) Dump whatever's left back in the stream. You'll use a similar substrate-stirring technique in ponds, but you'll have to sweep the net through the stuff you stir up because there's no flow. If you get a bunch of muck in your strainer, simply hold your strainer at the surface, half in the water and half above the water, and swish it gently back and forth. The silt and other small debris will flow out of the strainer and leave the bigger things behind.

I know, I know. It sounds completely stupid. But it works! I've handed soup strainers to well over 100 people in the last few years and I've won a lot of converts. It's amazing what you can collect with them. Considering the price, the ease of transport, and the ease of use, you can't go wrong.

Happy collecting!