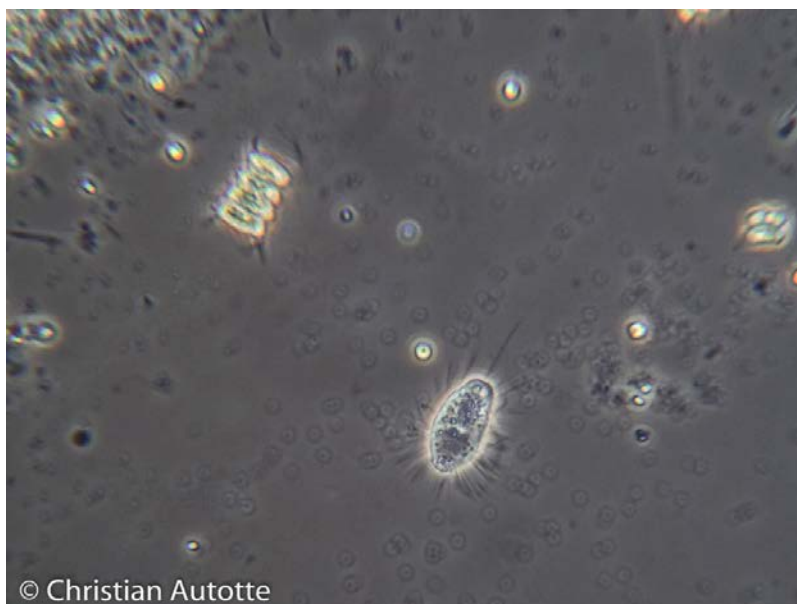


# PLANKTON NET IN A SMALL POND

This summer, I dug a small pond in my backyard (<http://www.microscopy-uk.org.uk/mag/artaug23/ca-pond.pdf>). The water has remained cloudy all summer long, so towards the end of the season I decided to try something. A plankton net made from a nylon stocking was moved back and forth several times along the entire length of the pond. A few minutes later, the sample was examined under the microscope.

I was expecting some algae, diatoms and the like. While I did see a few, I also found some interesting ciliates. They are very hairy, with an extra-long tail bristle. So far, I have not been able to identify them. They're tiny; using a 400x magnification, I had to add a 2x converter to get decent pictures.



© Christian Autotte  
Scenedesmus sp. and unidentified ciliate. Phase contrast, 800x.

After that initial observation, the sample was transferred to a glass jar and left by a window. After a few weeks, a thin film of green scum formed at the bottom of the jar. Now these had to be algae, and algae they were, but some that I had never seen before. They remind me of some ninja weapons, full of points and sharp angles. They were quickly identified as a species of *Selenastrum*. Individually, they have a curved shape, and look a

little like a boomerang. But they are normally attached to other cells to form small colonies; that's when they adopt their characteristic shape.



© Christian Autotte  
1000x



© Christian Autotte  
About 1000x



© Christian Autotte

First, I tried to feed the microorganisms in the jar with a few drops of milk, which was unsuccessful. Then I added a few drops of plant fertilizer in the hope of promoting more plant growth. I was hoping to see more species multiply. While there was some growth, my hope to see more species was not fulfilled to any great extent. Yet, on a picture like this one, I can isolate at least four different species. The thin long cells are probably a species of *Ankistrodesmus*. Those grouped

four at a time would be *Senedesmus*. Here and there are a few individual cells of *Senastrum*. Then, there are individual green cells that I cannot identify with any level of confidence.



© Christian Autotte

800x

Searching away from the concentrated mess, I was able to find some interesting groupings. This one shows an *Ankistrodesmus* with a few *Senedesmus*, and a few of those individual round cells I can't identify.

Working some more, I was able to isolate a single *Ankistrodesmus*.



© Christian Autotte

800x, cropped image.



© Christian Autotte  
800x, cropped by about half.

In this shot, we may very well see all the species of algae in that sample. The colonies of *Selenastrum* are accompanied by a single *Ankistrodesmus*, and a *Senedemus* in the background. Finally, there are a few of those round cells, plus two oval ones that I can't identify.

I will add some more liquid fertilizer of the type used in-house plants. And I will place the container in full light, on a windowsill. Hopefully, that water may turn a bit greener and give me more things to see. And I will keep on trying to identify those few other species. Whatever may come out of this sample, it shows that my artificial pond should provide me with some interesting specimens in the future.

Comments to the author Christian Autotte welcomed, email:  
cautotte214. AT gmail DOT com

Published in the December 2023 issue of Micscape magazine.

[www.micscape.org](http://www.micscape.org)