



Transcript

Science on the St. Johns: Plankton ...

<http://thescienceof.ju.edu/science-on-the-st-johns-plankton/>

Melinda Simmons: I have a 35 micron mesh plankton net here. We're just going to a little oblique tow from the dock manually. If we were in the open ocean we'd do this off the back of a boat with a much bigger net, but today we just want to get some phytoplankton to look at under the microscope and show people what's going on in the St. Johns River today.

Narrator: This mesh plankton net filters the water, concentrating the plankton and small particles into the bottle.

Back in the lab the heavy particles settle to the bottom of this bowl. Let's see what the microscope reveals.

The settled particles are dominated by decaying organic matter including dead plankton, which are full of nutrients. Floating on the surface of the sample we have what looks to be the phytoplankton *Miicrocystis*, which is a fresh water algae that can form harmful algal blooms. A view under the microscope confirms its identity. These green blobs are colonies of thousands of individual cells.

Now how about these fast-swimming zooplankton? These appear to be *Coleps*, a type of ciliated protist. They have tough armor and can immobilize their prey with chemicals. Although tiny to our eyes, they are indeed formidable predators.

Here we have *Vorticella*, which are attached to *Microcystis* colonies by stalks. Responding to the environment, the stalks rapidly recoil like springs.

These microscopic plants and animals from this sample are just a few of the many types of plankton that are essential for the St. Johns River. *Science on the St. Johns* brings this hidden world to curious minds.