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TREMONT

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Tardigrade Sampling in Lichens and Mosses



Photo by Paul J. Bartels. The species is *Echiniscus virginicus*.

Materials:

- ✓ 3 Styrofoam or plastic plates (don't use paper)
- ✓ Stapler
- ✓ Fine mesh (can use netting from onion bags)- I have used needlepoint mesh.
- ✓ One ply tissue
- ✓ Lichens or moss chopped into small pieces



Procedure:

- ✓ Take two of the plates and cut a hole in the center of both within 2 inches of outside ring.



- ✓ Place fine mesh between the plates and staple them together around the outside rim. Place these two plates with the mesh enclosed on top of the third plate (this plate has no hole and will be filled with water). On top of the mesh plates, place the single ply tissue. Make sure that the corners do not droop over the edge or water will wick out of the plate and onto your table. Place about ½ cup of chopped lichens or moss on the tissue and pour water over the lichens/moss until the bottom plate is filled and the lichens/moss are damp (they should not be covered with water).



- ✓ The organisms in the lichens or moss will become re-hydrated and begin to move around and feed. They move through the tissue and mesh into the lower plate of water. Leave this collector for 1 – 2 days. When you are ready to view your organisms, remove the upper two plates with mesh, tissue and lichens/moss. In the lower plate you should see some detritus material that has settled. Use a pipette to collect this detritus material and water. Using a micro-aquarium or slide, observe the organisms under a dissecting microscope.
- ✓ For more information about the tardigrades that you will observe, check out www.tardigrades.com
- ✓ For a great way to view the organisms, check out the MicroAquarium™ at Carolina Biological Supply Company.

Method as described by Paul Davidson in his 2006 article, **Modified Baurmann Funnel for Meiofauna Extraction from Soils and Mosses**.