

Methods for observing larvae or really small things

Viewing organisms

Prop the coverglass up with clay feet at corners. This permits the following:

- Holding larvae by compressing the clay until coverglass just presses upon the larva.
- Rolling organisms over by detaching clay from the slide, then pushing the coverglass so that the shear rolls the organisms.

Visualizing flow

You can visualize flow by adding seawater with particles or dye and pipeting water at the edge of the coverglass, and then removing water by blotting the opposite edge with absorbent paper. Common materials to visualize flow are food coloring, sumi ink ground in seawater, carmine powder, calcium carbonate, and algal cells.

Slowing organisms

Fast moving larvae can be slowed for observation by increasing viscosity with polymers or trapping larvae. Methylcellulose mixed with seawater is often used to increase viscosity of

water and slow organisms. You can trap small organisms by creating a cul de sac made from pieces of broken slide or coverglass. Some organisms will swim into the cul del sac and not be able to turn around. Nylon mesh (Nitex) used to make plankton nets (or sails for boats) can be used as a cage. Select a mesh size larger than the organism. Cut a square smaller than the coverglass and place it on a slide. Add larvae in a drop of water to the square of Nitex. Place a coverlass supported by clay on the Nitex cage. The organism may swim over or under the mesh but its progress across the slide will be slowed.

Making micropipettes

Turn on the gas and light a Bunsen burner. Then take a long Pasteur Pipette, holding both ends, and place the narrow part of the pipette in the flame. Wait a few seconds until the glass becomes soft and then lift the pipette out of the flame and pull the pipette apart. If done correctly you will have stretched the glass but the pipette will still be in one piece. You can then break the pipette where it is now very narrow and use it to collect small organisms.