# How to Build a Zebra Mussel Settlement Sampler

### Materials

- One brick with holes in it
- One 1/4-inch polypropylene rope
- A piece of 1/4-inch plastic mesh screen (about 6 by 12 inches)
- Two 1-foot sections of 1 1/2-inch or 2-inch PVC pipe
- Two washers with a 1/4-inch center hole
- Carabiner or snap link (optional)



A zebra mussel settlement sampler provides an easy, inexpensive way to monitor for zebra mussels, a small invasive species that attaches to solid surfaces in the water. Samplers can be hung from docks, barges or other structures in the water, and should be about 6-8 feet long, if the water is that deep at the deployment site.

## Construction

- Cut the rope to the desired length (6-8 feet, if the water is at least that deep at the deployment site, plus enough rope to reach the attachment point plus 1 foot).
- 2. Drill a 3/8-inch hole through the center of each PVC pipe.
- 3. Tie one end of the rope to the brick.
- 4. Tie an overhand knot in the rope approximately 1 foot above the brick.
- 5. Slide washer onto the rope until it touches the knot.
- 6. Thread the rope through the holes in one of the PVC sections and push down to the washer.
- 7. Thread rope through the top and bottom of the plastic mesh to form a U-shape.
- 8. Push the mesh to about 6 inches above the PVC pipe section.
- 9. Tie an overhand knot 2 feet above the PVC section on the rope.
- 10. Slide the second washer onto the rope until it touches the knot.
- 11. Thread the rope through the holes in the second PVC section and push it down to the washer.
- 12. Center the plastic mesh between the two pieces of PVC.
- 13. Tie a loop into the free end of the rope.
- 14. Use the carabiner/snap link or a square knot to secure the sampler to a structure so the top piece of PVC is about 1 foot below the surface of the water.



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Adult zebra mussels have triangular shells and distinctive striped markings. They grow to a maximum of about 2 inches.

#### Monitor

Check the settlement sampler at least monthly. Adults can grow to about 2 inches long, but younger mussels are much smaller – about 1/8 of an inch or less. Adult mussels have striped markings on two symmetrical valves, but younger mussels are brown and without stripes.

## Report

Report any zebra mussel findings to

<u>www.texasinvasives.org</u>. For more information about zebra mussels in the Highland Lakes, see <u>www.lcra.org/zebramussels</u>. Clean, drain and dry your boat after use, as required by Texas law.

