

MACROINVERTEBRATE DATA SHEET

Complete this data sheet and keep for your records. (*) fields are required. Submit data online at mostreamteam.org

*Site #:	*State:	*County:	Trib of <input type="checkbox"/> *Stream Name:	
*Site Description:				
*Data Submitter:			*Stream Team:	
*Sampling Date:			*Time (Military Time):	
Number of Participants:		Rainfall (inches in the last 7 days):		Water Temp in shade (°C):
	*Net Set #1	*Net Set #2	*Net Set #3	Score for Types Present Circle the number below if the organism was found in any of the three net sets. Next, add the circled scores together to get the Water Quality Rating.
*Habitat Type				
*Net Type	<input type="checkbox"/> Kick Net <input type="checkbox"/> D-Net	<input type="checkbox"/> Kick Net <input type="checkbox"/> D-Net	<input type="checkbox"/> Kick Net <input type="checkbox"/> D-Net	
*Time Spent Picking	Minutes Picking: _____	Minutes Picking: _____	Minutes Picking: _____	
	Number of People: _____	Number of People: _____	Number of People: _____	
	Total: _____	Total: _____	Total: _____	
Sensitive Organisms	Number of Organisms	Number of Organisms	Number of Organisms	
Caddisfly Larvae				3
Dobsonfly Larvae				3
Mayfly Nymphs				3
Gilled Snails (right)				3
Riffle Beetles				3
Stonefly Nymphs				3
Water Penny Larvae				3
Somewhat Tolerant				
Other Beetle Larvae				2
Clams/Mussels				2
Crane Fly Larvae				2
Crayfish				2
Dragonfly Nymphs				2
Damselfly Nymphs				2
Scuds				2
Sowbugs				2
Fishfly Larvae				2
Alderfly Larvae				2
Watersnipe Fly Larvae				2
Tolerant				
Aquatic Worms				1
Black Fly Larvae				1
Leeches				1
Midge Larvae				1
Pouch Snails (left)				1
Other Snails (flat)				1
Less Than 12 = Poor 12-17 = Fair 18-23 = Good Greater Than 23 = Excellent				Water Quality Rating:
Comments:				
Fish present during sampling event? <input type="checkbox"/> Yes <input type="checkbox"/> No				

INSTRUCTIONS FOR BIOLOGICAL MONITORING

- ▶ Collect three net sets of invertebrates from three different microhabitats. This ensures a more complete picture of what lives in your stream and more accurately reflects health. Adequate sampling requires two people and the use of a kick net. If sampling by yourself, a D-frame net may be needed.
- ▶ If possible, take all three net sets from different areas within a stable riffle. Microhabitats to sample include differences in rock size, flow, leaf packs, and emergent vegetation.
- ▶ Be sure to note which type of net you use to sample: kick net or D-frame net.
- ▶ Always work in an upstream direction so sampling activities do not disturb portions of the riffle to be sampled later.
- ▶ If and only if you do not have enough riffle habitat within your 300-foot sampling site to collect three net sets, you may also want to sample alternative microhabitats.
 - o Prioritize sampling of habitat types in the following order:
 - Riffle
 - Root mat
 - Snags
 - Non-flow
 - o Whatever habitats you decide to sample at your site (e.g., two riffle net sets and one root mat), always sample those same three habitats at the site every time you sample there and list the habitat type for each sample. This will ensure that the data you collect remains consistent over time.

Sampling Streams With Riffles

Adequate sampling requires two people, one to hold the net and the other to dislodge invertebrates from the substrate.

1. Place the net in the riffle facing upstream and tilt it enough to create a “pocket” to collect organisms on.
2. Ensure the bottom of the net is on the stream bottom leaving no room between the net and the substrate. This prevents organisms from washing under the net.
3. Rub all large stones in the 3' x 3' area immediately upstream of the net to dislodge invertebrates and wash them into the net.
4. “Dance and kick” with your feet in the 3' x 3' area until you have disturbed all the substrate 3” to 6” deep to dislodge invertebrates into the net.

Streams Without Riffles (or without riffles large enough for 3 net sets)

Sample Collection from Root Mats - Adequate sampling requires two people

1. Have one person place the side of the kick net against the bank on the downstream side of the root mat.
2. Make sure that the net is anchored to the stream bed.
3. The second volunteer will then kick the root mat in a swirling motion with one foot to create a circular current in order to dislodge the invertebrates from the root mat. The circular motion of the sampler's foot will drive the invertebrates into the net, even if there is no current.

Sample Collection from Snags - Adequate sampling requires two people

1. Have one person hold the net in a horizontal position about 6” to 12” under the water.
2. The second volunteer will remove the snag from the water. When removing the snag from the water, pull the snag out of the water quickly. If the snag is removed too slowly, the invertebrates may swim off.
3. Brush the snag down with a brush above the net to dislodge invertebrates.
4. Sample approximately 3-5 snags for one net set.

Sample non-flow areas in the same manner as a riffle, collecting three separate samples. However, the sampler will need to use a swirling motion with the foot to create a current to move debris into the net. Although this habitat can be sampled using a kick net, it is easier with a D-frame net. If using a D-frame net, you will need to disturb the substrate and sweep the net in a circular motion over the disturbed substrate to collect the organisms. Be sure to run two passes with the D-frame net to equal one net set.



SUBMIT DATA ONLINE:
mostreamteam.org/reporting-forms.html

Data may be mailed to:
VWQM Coordinator, Water Protection Program, Department of Natural Resources,
P.O. Box 176, Jefferson City, MO 65102
800-781-1989

