

Virginia Save Our Streams Stream Quality Survey

Name: _____ Date: _____

The purpose of this form is to aid you in gathering and recording important data about the health of your stream. By keeping accurate and consistent records of your observations and data from your macroinvertebrate count, you can document changes in water quality. Refer to the SOS insect card and the standard operating procedures to learn how to trap and identify stream macroinvertebrates and how to complete this form. It is assumed that you are using a rocky bottom sampling strategy, you select three riffle-testing sites where water depth is between 3 and 12 inches, of moderate speed, and the bed consists primarily of cobble-sized stones. Sampling size should be 3 X 3 feet.

Stream: _____ Station: _____

of participants: _____ County: _____

Group: _____ Certified Monitor: _____

Location: _____

Latitude: _____ Longitude: _____ Flow: High__ Normal__ Low__

Weather conditions (last 72 hours): _____

Average stream width: _____ ft. Average stream depth: _____ inches

Water temperature: _____ F or C Water depth in riffle: _____ inches

Macroinvertebrate count:

Use the stream monitoring instructions to conduct a macroinvertebrate count. The three categories of macroinvertebrate orders are divided based on the organism's sensitivity to pollution. Use letter codes (A= 1-9, B= 10-99, C = 100 or more) to record the number of organisms found in each sampling site. Add up the number of letters in each column and multiply by the indicated index value. Use the data from the same sample in all three categories that has highest diversity and score to calculate the index value.

Sensitive	Somewhat Sensitive	Tolerant
_____ caddisfly larvae	_____ beetle larvae	_____ aquatic worms
_____ hellgrammite	_____ clams	_____ blackfly larvae
_____ mayfly nymphs	_____ crane fly larvae	_____ leeches
_____ gilled snails	_____ crayfish	_____ midge larvae
_____ riffle beetle adult	_____ dragonfly nymphs	_____ pouch (and other
_____ stonefly nymphs	_____ damselfly nymphs	snails
_____ water penny larvae	_____ scuds	
	_____ sowbugs	
	_____ fishfly larvae	
	_____ alderfly larvae	
	_____ atherix	
_____ highest count x 3 =	_____ highest count x 2 =	_____ highest count x 1 =
_____ index value	_____ index value	_____ index value

Now add together the three index values from each column for your total and place it in one of the following water quality rating categories:

_____ Excellent (>22) _____ Good (17-22) _____ Fair (11-16) _____ Poor (<11)

Name: _____ Date: _____

Stream: _____ Station: _____

Net 1:

Sensitive	Somewhat Sensitive	Tolerant
<input type="checkbox"/> caddisfly larvae	<input type="checkbox"/> beetle larvae	<input type="checkbox"/> aquatic worms
<input type="checkbox"/> hellgrammite	<input type="checkbox"/> clams	<input type="checkbox"/> blackfly larvae
<input type="checkbox"/> mayfly nymphs	<input type="checkbox"/> crane fly larvae	<input type="checkbox"/> leeches
<input type="checkbox"/> gilled snails	<input type="checkbox"/> crayfish	<input type="checkbox"/> midge larvae
<input type="checkbox"/> riffle beetle adult	<input type="checkbox"/> dragonfly nymphs	<input type="checkbox"/> pouch (and other
<input type="checkbox"/> stonefly nymphs	<input type="checkbox"/> damselfly nymphs	snails
<input type="checkbox"/> water penny larvae	<input type="checkbox"/> scuds	
	<input type="checkbox"/> sowbugs	
	<input type="checkbox"/> fishfly larvae	
	<input type="checkbox"/> alderfly larvae	
	<input type="checkbox"/> atherix	

Net 2:

Sensitive	Somewhat Sensitive	Tolerant
<input type="checkbox"/> caddisfly larvae	<input type="checkbox"/> beetle larvae	<input type="checkbox"/> aquatic worms
<input type="checkbox"/> hellgrammite	<input type="checkbox"/> clams	<input type="checkbox"/> blackfly larvae
<input type="checkbox"/> mayfly nymphs	<input type="checkbox"/> crane fly larvae	<input type="checkbox"/> leeches
<input type="checkbox"/> gilled snails	<input type="checkbox"/> crayfish	<input type="checkbox"/> midge larvae
<input type="checkbox"/> riffle beetle adult	<input type="checkbox"/> dragonfly nymphs	<input type="checkbox"/> pouch (and other
<input type="checkbox"/> stonefly nymphs	<input type="checkbox"/> damselfly nymphs	snails
<input type="checkbox"/> water penny larvae	<input type="checkbox"/> scuds	
	<input type="checkbox"/> sowbugs	
	<input type="checkbox"/> fishfly larvae	
	<input type="checkbox"/> alderfly larvae	
	<input type="checkbox"/> atherix	

Net 3:

Sensitive	Somewhat Sensitive	Tolerant
<input type="checkbox"/> caddisfly larvae	<input type="checkbox"/> beetle larvae	<input type="checkbox"/> aquatic worms
<input type="checkbox"/> hellgrammite	<input type="checkbox"/> clams	<input type="checkbox"/> blackfly larvae
<input type="checkbox"/> mayfly nymphs	<input type="checkbox"/> crane fly larvae	<input type="checkbox"/> leeches
<input type="checkbox"/> gilled snails	<input type="checkbox"/> crayfish	<input type="checkbox"/> midge larvae
<input type="checkbox"/> riffle beetle adult	<input type="checkbox"/> dragonfly nymphs	<input type="checkbox"/> pouch (and other
<input type="checkbox"/> stonefly nymphs	<input type="checkbox"/> damselfly nymphs	snails
<input type="checkbox"/> water penny larvae	<input type="checkbox"/> scuds	
	<input type="checkbox"/> sowbugs	
	<input type="checkbox"/> fishfly larvae	
	<input type="checkbox"/> alderfly larvae	
	<input type="checkbox"/> atherix	