Biosurvey: Field Data Sheets *(p 1 of 3)*

Macroinvertebrate Survey

Date: year_____month_____day_____ Time:_____hour_____minute
(NOTE: Time hr./min. on 24-hour clock, as 10:10 for AM or 22:10 for PM)

Site ID#_____

Recorder Information
Name_____

Monitor Information
Name_____

Monitor Information
Name_____

Monitor Information
Name_____

Monitor Information
Name_____

Precipitation In the past 24 hours:
___ Storm (heavy rain > 1in)
___ Rain (steady rain ¼in to 1in)
___ Showers (intermittent rain up to ¼in)
___ Overcast
___ Clear

Current:
___ Storm (heavy rain > 1in)
___ Rain steady rain ¼in to 1in)
___ Showers (intermittent rain up to ¼in)
___ Overcast
___ Clear

Type of Stream
____ Rocky-bottom ____ Muddy-bottom

Muddy-bottom Sampling Only: Record the number of jabs taken in each habitat type.

____ Vegetated Bank Margin ____ Aquatic Vegetation Beds
____ Snags and Logs ____ Silt/sand/gravel Substrate

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Macroinvertebrate Count

Identify the macroinvertebrates (to order) in your sample using the identification sheets. We are only concerned with organisms that appear on the identification sheets. Record the number of organisms below and then assign them letter codes based on their abundance:

R (rare) = 1-9; **C** (common) = 10-99; **D** (dominant) = 100 plus organisms.

example: 20 (C) *WaterPenny larvae*

Group I - Sensitive

_____ (____) Water Penny larvae
_____ (____) Hellgrammites
_____ (____) Mayfly nymphs
_____ (____) Gilled snails
_____ (____) Riffle beetle adults
_____ (____) Stonefly nymphs
_____ (____) Non-net spinning caddisfly larvae

Group II - Somewhat Sensitive

_____ (____) Beetle larvae
_____ (____) Clams
_____ (____) Cranefly larvae
_____ (____) Crayfish
_____ (____) Damselfly nymphs
_____ (____) Dragonfly nymphs
_____ (____) Scuds
_____ (____) Sowbugs
_____ (____) Fishfly larvae
_____ (____) Alderfly larvae
_____ (____) Net-spinning caddisfly larvae

Group III - Tolerant

_____ (____) Aquatic worms
_____ (____) Blackfly larvae
_____ (____) Leeches
_____ (____) Midge larvae
_____ (____) Snails

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Water Quality Rating

To calculate the index value, add the number of letters found in the three groups above and multiply by the indicated weighing factor.

Group I – Sensitive

(# of R's) x 5.0 = _____
(# of C's) x 5.6 = _____
(# of D's) x 5.3 = _____
Sum of the Index Value for Group I = _____

Group II – Somewhat Sensitive

(# of R's) x 3.2 = _____
(# of C's) x 3.4 = _____
(# of D's) x 3.0 = _____
Sum of the Index Value for Group II = _____

Group III – Tolerant

(# of R's) x 1.2 = _____
(# of C's) x 1.1 = _____
(# of D's) x 1.0 = _____
Sum of the Index Value for Group III = _____

To calculate the water quality score for the stream site, add together the index values for each group. The sum of these values equals the water quality score.

Water Quality Score = _____

Compare this score to the following number ranges to determine the quality of your stream site.

_____ Good > 40 _____ Fair 20-40 _____ Poor <20

- *Note: The tolerance groupings (Group I, II, III) and the water quality rating categories were developed for streams in the Mid-Atlantic states.*