CRUM / RIDLEY / CHESTER Volunteer Monitoring Program
Core monitors' data sheet (version 7/99)

General Info

Site Number _____, Date _____, Time _____

Site Name _____, Watershed/Creek Name _____

Investigators _____

Weather Conditions

Shade Air Temperature _____ ^{o}C

Cloud Cover (circle one) CLEAR, PARTLY CLOUDY, MOSTLY CLOUDY, ALL CLOUDS

Wind (circle one) CALM, BREEZY, MODERATE WIND, HIGH WIND

Rainfall NOW (circle one) NONE, LIGHT RAIN, MODERATE RAIN, HEAVY RAIN

Rainfall PREVIOUS 24 HR NONE, LIGHT RAIN, MODERATE RAIN, HEAVY RAIN

Ice Cover in Creek NONE, RARE ICE PATCHES, MUCH ICE, MOSTLY ICED OVER

Water Quality Tests

pH test (range 4-10):

color of test solution _____, pH _____

TURBIDITY (range 0-50 jtu):

How much water do you have in your test tubes? (check one) | 50 ml | or | 25 ml | ?

How many times did you add 0.5 ml of liquid from the eye dropper to the clear water tube? _____

{note: for 50 ml, find jtu = # of drops * 5, for 25 ml, find jtu = # of drops * 10}

DISSOLVED OXYGEN (range 2-14 ppm):
(caution: to be conducted by adults only) _____ ppm

WATER TEMPERATURE:

_____ ^{o}C

TOTAL ALKALINITY (range 0-100 ppm):
(caution: to be conducted by adults only) _____ ppm

Comments (please note any specific changes at your site such as algal blooms, obvious pollution, bad smells, interesting wildlife, etc., and please use the back of this page for more comments):

Please send the completed data form to: Dr. Bruce Grant, Dept. Biology, Widener University, Chester, PA. 19013, 610-499-4017, FAX: 610-499-4496, email grant@pop1.science.widener.edu, http://www.science.widener.edu/~grant/crc/crc_main.html

CRUM / RIDLEY / CHESTER Volunteer Monitoring Program
Specialized monitors' supplementary data sheet (version 7/99)

General Info

Site Number _____, Date _____, Time _____

Site Name _____, Watershed/Creek Name _____

Investigators _____

*** Please Record Weather Conditions on the Core Monitors' Data Sheet ***

Water Quality Tests

*** Please record **pH, TURBIDITY, DISSOLVED OXYGEN, TOTAL ALKALINITY,** and **WATER TEMPERATURE** on the Core Monitors' Data Sheet ***

*** Please, please write out the words "greater than" or "less than" instead of using the > or < symbols, respectively, where appropriate. ***

*** Please, please, please, double check the placement of decimal points where appropriate. ***

AMMONIA color _____ value _____ ppm

CARBON DIOXIDE color _____ value _____ ppm

CHLORIDE color _____ value _____ ppm

TOTAL HARDNESS color _____ value _____ ppm

CALCIUM HARDNESS color _____ value _____ ppm

NITRATE color _____ value _____ ppm
(note: to find the nitrate value in ppm, multiply the number on axial comparator by 4.4)

PHOSPHATE color _____ value _____ ppm

SULFIDE color _____ value _____ ppm

Additional comments, notes, nitrate calculations, etc. (please write more on back if needed)

Please send the completed data form to: Dr. Bruce Grant, Dept. Biology, Widener University, Chester, PA. 19013, 610-499-4017, FAX: 610-499-4496, email grant@pop1.science.widener.edu, http://www.science.widener.edu/~grant/crc/crc_main.html

CRUM / RIDLEY / CHESTER Volunteer Monitoring Program
Monitoring Site Map data sheet (version 7/99)

General Info

Site Number _____, Date _____, Time _____

Site Name _____, Watershed/Creek Name _____

Investigators _____

Please use this page and provide a sketch of where you sampled at your site. The idea is for you to generate a map that someone else may use to find your sampling site within about 50 feet. Include additional little sketches to show adjacent roads (label them!), an approximate scale in feet, where you park, which way is north, where riffles are located if there are any, and any other useful landmarks such as buildings, bridges, big trees, etc. Clearly indicate with a little "X" the exact location on your sketch where you conducted your water sampling.

Please send the completed data form to: Dr. Bruce Grant, Dept. Biology, Widener University, Chester, PA. 19013, 610-499-4017, FAX: 610-499-4496, email grant@pop1.science.widener.edu, http://www.science.widener.edu/~grant/crc/crc_main.html

CRUM / RIDLEY / CHESTER Volunteer Monitoring Program
Biological monitoring data sheet (version 7/99)

General Info

Site Number _____, Date _____, Time _____

Site Name _____, Watershed/Creek Name _____

Investigators _____

*** Please Record Weather Conditions on the Core Monitors' Data Sheet ***

Group 1 Taxa: Organisms Indicating "Good" Water Quality:

1) Mayfly larvae	2) Stonefly larvae	3) Caddisfly larvae	4) Water Penny/ Riffle Beetle	5) Gilled Snail	6) Dobsonfly "Hellgrammite"	total "good"

Group 2 Taxa: Organisms Indicating "Fair" Water Quality:

7) Crayfish	8) Sowbug	9) Scud	10) Alderfly larvae	11) Fishfly larvae	12) Damselfly larvae

13) Watersnipe larvae	14) Cranefly larvae	15) misc. beetle larvae	16) Dragonfly larvae	17) Clam	total "fair"

Group 3 Taxa: Organisms Indicating "Poor" Water Quality:

18) annelids	19) midge fly larvae	20) misc. Diptera	21) leech	22) misc. snails	23) flatworms	24) nematodes	total "poor"

Comments (please note any VERTEBRATES and any other specific observations such as algal blooms, obvious pollution, bad smells, interesting wildlife, etc., and please use the back of this page for more comments):

Please send the completed data form to: Dr. Bruce Grant, Dept. Biology, Widener University, Chester, PA. 19013, 610-499-4017, FAX: 610-499-4496, email grant@pop1.science.widener.edu, http://www.science.widener.edu/~grant/crc/crc_main.html

CRUM / RIDLEY / CHESTER Volunteer Monitoring Program
Biological monitoring additional information sheet (version 7/99)

General Info

Each complete sample should include organisms picked from 20 rocks (each of which should be about the size of a brick), and from two kick net samples (using about a one meter wide net and collecting organisms disturbed from a one meter^2 area in a stream riffle immediately upstream).

*** Please Record Weather Conditions on the Core Monitors' Data Sheet ***

*** Please Record Total Counts for Each Type of Organism You Find on the Biological Monitoring Data Sheet ***

*** Please Sketch the Sampling Sites to Show Where Your Samples (Kick Net and Rocks) Were Taken on the Monitoring Site Map Data Sheet ***

Appendix of Additional Taxonomic Information:

Group 1 Taxa: Organisms Indicating Good Water Quality:

1) Mayfly larvae (Phylum Arthropoda, Class Insecta, Order Ephemeroptera)
2) Stonefly larvae (Phylum Arthropoda, Class Insecta, Order Plecoptera)
3) Caddisfly larvae (Phylum Arthropoda, Class Insecta, Order Trichoptera)
4) Water Penny/ Riffle Beetle (Phylum Arthropoda, Class Insecta, Order Coleoptera, Families Psephenidae/Elmidae)
5) Gilled Snail (Phylum Mollusca, Class Gastropoda)
6) Dobsonfly larvae "Hellgrammite" (Phylum Arthropoda, Class Insecta, Order Neuroptera, Family Corydalidae)

Group 2 Taxa: Organisms Indicating Fair Water Quality:

7) Crayfish (Phylum Arthropoda, Order Decapoda)
8) Sowbug (Phylum Arthropoda, Order Isopoda)
9) Scud (Phylum Arthropoda, Order Amphipoda)
10) Alderfly larvae (Phylum Arthropoda, Class Insecta, Order Neuroptera, Family Sialidae)
11) Fishfly larvae (Phylum Arthropoda, Class Insecta, Order Neuroptera, Family Corydalidae)
12) Damselfly larvae (Phylum Arthropoda, Class Insecta, Order Odonata, sub-Order Zygoptera)
13) Watersnipe fly larvae (Phylum Arthropoda, Class Insecta, Order Diptera, Family Athericidae)
14) Cranefly larvae (Phylum Arthropoda, Class Insecta, Order Diptera, Family Tipulidae)
15) misc. beetle larvae (Phylum Arthropoda, Class Insecta, Order Coleoptera)
16) Dragonfly larvae (Phylum Arthropoda, Class Insecta, Order Odonata, sub-Order Anisoptera)
17) Clam (Class Pelecypoda {Bivalva})

Group 3 Taxa: Organisms Indicating Poor Water Quality:

18) annelids (Phylum Annelida, Class Oligochaeta)
19) midge fly larvae (Phylum Arthropoda, Order Diptera, sub-Order Nematocera)
20) misc. Diptera (Phylum Arthropoda, Order Diptera)
21) leech (Phylum Annelida, Class Hirudinoidea)
22) misc. snails (Phylum Mollusca, Class Gastropoda)
23) flatworms (Phylum Platyhelminthes)
24) nematodes (Phylum Nematoda)