Healthy Wetlands: Aquatic Invertebrates as Indicators
Field Data Collection Sheet

Name of collector(s): _____ Date: _____

Teacher: _____

Collection Time:_____

Collect Dip Sample:

The dip sample will allow you to collect aquatic invertebrates that are swimming or floating in the water.

1. Select a collection site with your group
2. Walk towards your collection site gently and quietly and try not to stir up too much mud. If you can access your collection site without entering the water, please do so.
3. Quickly scoop water with the dipper.
4. Place the water sample into the white plastic tub
5. Repeat until you have 3-5 scoops to analyze

Water Observations:

Use your meter stick to measure the stream depth at collection site (cm): _____

Water Temperature: (C°):_____

Hold your thermometer under water at your site for 1 minute. Be careful not to let it sit on the bottom.

Name of water body: _____

Weather conditions: __Sunny __Cloudy __Raining __Drizzling __Windy __Foggy

Litter at your site: __None __Very little __ Some trash __A lot of trash Notes: _____

Please describe any wildlife or other observations you make either in or out of the water:

_____

_____

_____

The number of different organisms that you find in your water sample can tell us a lot about water quality.

Identify Aquatic Invertebrates in Your Sample:

1. Look for aquatic invertebrates in your sample and observe their behavior
2. Using the turkey baster and eye droppers, remove the invertebrates from the basin and place them in a petri dish.
3. Take a closer look at the organisms using a magnifying glass.
4. Use the "Aquatic Invertebrate Field Guide" to identify the organisms.
5. Mark a "1" next to each different organism found in your sample.
6. Add up the numbers in each column and follow the directions below.

Group 1: Sensitive to Pollution	Group 2: Somewhat Sensitive	Group 3: Pollution Tolerant
___ Caddisfly larva ___ Dobsonfly larva ___ Flatworm (Planarian) ___ Mayfly nymph	___ Crayfish ___ Damselfly nymph ___ Dragonfly nymph ___ Fish lice (Branchiura/Argulus) ___ Gilled snail (Prosobranch) ___ Hydra ___ Pond snail (Lymna) ___ Pouch snail (Physid) ___ Predaceous diving beetle ___ Predaceous diving beetle larva ___ Ramshorn snail (Planorbid) ___ Scud (Amphipod) ___ Water mite (Acari) ___ Water scavenger beetle ___ Water scavenger beetle larva ___ Whirligig beetle ___ Whirligig beetle larva	___ Aquatic Worm ___ Back swimmer ___ Copepod ___ Giant Water Bug ___ Leech ___ Midge or no-see-um larva ___ Mosquito larva ___ Mosquito pupa ___ Opossum shrimp (Mysid) ___ Seed shrimp (Ostracod) ___ Water boatmen ___ Water flea (Daphnia)
Total # of types of organisms = ____	Total # of types of organisms = ____	Total # of types of organisms = ____
Now multiply that number by Index # = **3**	Now multiply that number by Index # = **2**	Now multiply that number by Index # = **1**
TOTAL = ____	TOTAL = ____	TOTAL = ____
Now add together ALL of the TOTALS from each column for your water quality rating. Water Quality Rating: _____		

Compare this total water quality rating to the following ranges of numbers to determine the water quality here.

WATER QUALITY RATING
(Please check the appropriate rating for your class sample)

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

When you are done, empty the contents of the plastic bins into the water and clean up your materials.