

MiCorps Site ID# \_\_\_\_\_ Sample Date \_\_\_\_\_



**FAMILY LEVEL IDENTIFICATION AND ASSESSMENT**

Instructions: If you choose to identify macroinvertebrates at the family level, fill out the front page of the normal Macroinvertebrate datasheet with the location and sample information, don't fill out the back with the simpler identification scheme, and then staple this to it. The Water Quality Index score can be calculated in a similar manner as in the simpler identification, though due to improved resolution of identification, you will see improved accuracy in assessing the water quality.

| Count | Name | Sensitivity Rating | Count x Sensitivity |
|-------|------|--------------------|---------------------|
|-------|------|--------------------|---------------------|

**ANNELIDA-Segmented Worms**

|  |             |    |  |
|--|-------------|----|--|
|  | Hirudinea   | 10 |  |
|  | Oligochaeta | 10 |  |

**COLEOPTERA- Beetles**

|  |                 |   |  |
|--|-----------------|---|--|
|  | Curculionidae   | 5 |  |
|  | Dryopidae       | 5 |  |
|  | Dytiscidae      | 5 |  |
|  | Elmidae         | 4 |  |
|  | Gyrinidae       | 5 |  |
|  | Haliplidae      | 5 |  |
|  | Hydrophilidae   | 5 |  |
|  | Lampyridae      |   |  |
|  | Noteridae       |   |  |
|  | Psephenidae     | 4 |  |
|  | Ptilodactylidae | 3 |  |
|  | Scirtidae       | 5 |  |
|  | Staphylinidae   | 8 |  |

**DIPTERA- True Flies**

|  |                 |    |  |
|--|-----------------|----|--|
|  | Athericidae     | 2  |  |
|  | Blephariceridae | 0  |  |
|  | Ceratopogonidae | 6  |  |
|  | Chaoboridae     | 8  |  |
|  | Chironomidae    | 6  |  |
|  | Culicidae       | 8  |  |
|  | Dixidae         | 1  |  |
|  | Dolichopodidae  | 4  |  |
|  | Empididae       | 6  |  |
|  | Ephydriidae     | 6  |  |
|  | Muscidae        | 6  |  |
|  | Psychodidae     | 8  |  |
|  | Ptychopteridae  | 10 |  |
|  | Sciomyzidae     | 6  |  |
|  | Simuliidae      | 6  |  |
|  | Stratiomyidae   | 8  |  |
|  | Syrphidae       | 10 |  |
|  | Tabanidae       | 6  |  |
|  | Tipulidae       | 4  |  |

| Count | Name | Sensitivity Rating | Count x Sensitivity |
|-------|------|--------------------|---------------------|
|-------|------|--------------------|---------------------|

**CRUSTACEA- Crustaceans**

|  |           |   |  |
|--|-----------|---|--|
|  | Amphipoda | 4 |  |
|  | Decapoda  | 6 |  |
|  | Isopoda   | 8 |  |

**EPHEMEROPTERA- Mayflies**

|  |                 |   |  |
|--|-----------------|---|--|
|  | Ameletidae      | 0 |  |
|  | Ametropodidae   |   |  |
|  | Anthropleidae   |   |  |
|  | Baetidae        | 4 |  |
|  | Baetiscidae     | 3 |  |
|  | Caenidae        | 7 |  |
|  | Ephemerellidae  | 1 |  |
|  | Ephemeridae     | 4 |  |
|  | Heptageniidae   | 4 |  |
|  | Isonychiidae    | 2 |  |
|  | Leptohyphidae   | 3 |  |
|  | Leptoplebiidae  | 2 |  |
|  | Metretopodidae  | 2 |  |
|  | Neophemeridae   |   |  |
|  | Polymitarcyidae | 2 |  |
|  | Potamanthidae   | 4 |  |
|  | Pseudironidae   |   |  |
|  | Siphonuridae    | 7 |  |

**GASTROPODA- Snails, Limpets**

|  |               |   |  |
|--|---------------|---|--|
|  | Ancylidae     | 6 |  |
|  | Bithyniidae   |   |  |
|  | Hydrobiidae   |   |  |
|  | Lymnaeidae    |   |  |
|  | Physidae      | 8 |  |
|  | Planorbidae   | 7 |  |
|  | Pleuroceridae |   |  |
|  | Pomatiopsidae |   |  |
|  | Valvatidae    |   |  |
|  | Viviparidae   |   |  |

| Count | Name | Sensitivity Rating (0-10) | Count x Sensitivity |
|-------|------|---------------------------|---------------------|
|-------|------|---------------------------|---------------------|

#### HEMIPTERA- True Bugs

|  |                |    |  |
|--|----------------|----|--|
|  | Belostomatidae | 10 |  |
|  | Corixidae      | 10 |  |
|  | Gelastocoridae |    |  |
|  | Gerridae       | 5  |  |
|  | Hydrometridae  |    |  |
|  | Mesoveliidae   |    |  |
|  | Naucoridae     | 5  |  |
|  | Nepidae        | 8  |  |
|  | Notonectidae   |    |  |
|  | Pleidae        |    |  |
|  | Saldidae       | 10 |  |
|  | Veliidae       | 6  |  |

#### LEPIDOPTERA- Moths and Butterflies

|  |                 |   |  |
|--|-----------------|---|--|
|  | Cosmopterigidae |   |  |
|  | Nepticulidae    | 5 |  |
|  | Noctuidae       |   |  |
|  | Pyralidae       | 5 |  |
|  | Tortricidae     |   |  |

#### MEGALOPTERA

|  |             |   |  |
|--|-------------|---|--|
|  | Corydalidae | 0 |  |
|  | Sialidae    | 4 |  |

#### ODONATA- Damselflies, Dragonflies

|  |                  |   |  |
|--|------------------|---|--|
|  | Aeshnidae        | 3 |  |
|  | Calopterygidae   | 5 |  |
|  | Coenagrionidae   | 9 |  |
|  | Cordulidae       | 2 |  |
|  | Cordulegastridae | 3 |  |
|  | Gomphidae        | 1 |  |
|  | Lestidae         | 9 |  |
|  | Libellulidae     | 9 |  |
|  | Macromiidae      | 3 |  |

#### PELECYPODA-bivalves

|  |                            |   |  |
|--|----------------------------|---|--|
|  | Corbiculidae               | 6 |  |
|  | Dreissenidae               | 8 |  |
|  | Sphaeriidae (aka Pisiidae) | 8 |  |
|  | Unionidae                  | 6 |  |

Note: MiCorps was not able to locate a tolerance value of every taxa listed here; in those cases, it was left blank. If you can aid our research with tolerance values, please email [psteen@hrwc.org](mailto:psteen@hrwc.org).

| Count | Name | Sensitivity Rating (0-10) | Count x Sensitivity |
|-------|------|---------------------------|---------------------|
|-------|------|---------------------------|---------------------|

#### PLECOPTERA- Stoneflies

|  |                  |   |  |
|--|------------------|---|--|
|  | Capniidae        | 1 |  |
|  | Chloroperlidae   | 1 |  |
|  | Leuctridae       | 0 |  |
|  | Nemouridae       | 2 |  |
|  | Perlidae         | 1 |  |
|  | Perlodidae       | 2 |  |
|  | Pteronarcyidae   | 0 |  |
|  | Taeniopterygidae | 2 |  |

#### TRICHOPTERA- Caddisflies

|  |                   |   |  |
|--|-------------------|---|--|
|  | Apataniidae       | 3 |  |
|  | Brachycentridae   | 1 |  |
|  | Dipseudopsidae    | 5 |  |
|  | Glossosomatidae   | 1 |  |
|  | Goeridae          | 3 |  |
|  | Helicopsychidae   | 3 |  |
|  | Hydropsychidae    | 4 |  |
|  | Hydroptilidae     | 4 |  |
|  | Lepidostomatidae  | 3 |  |
|  | Leptoceridae      | 4 |  |
|  | Limnephilidae     | 4 |  |
|  | Molannidae        | 6 |  |
|  | Odontoceridae     | 0 |  |
|  | Philopotamidae    | 3 |  |
|  | Phryganeidae      | 4 |  |
|  | Polycentropodidae | 6 |  |
|  | Psychomyiidae     | 2 |  |
|  | Rhyacophilidae    | 0 |  |
|  | Sericostomatidae  | 3 |  |
|  | Uenoidae          | 3 |  |

#### OTHER GROUPS

|  |   |   |  |
|--|---|---|--|
|  | HYDRACARINA<br>Water mites                | 6 |  |
|  | COLLEMBOLA<br>springtails                 | 5 |  |
|  | PLATYHELMINTHES-<br>Turbellaria/Flatworms | 4 |  |

#### WATER QUALITY RATING

|  |  |
|--|--|
| ← Add up the Count columns on both sides (Total Abundance) |  |
| Add up the "Count x Sensitivity" column for both sides →   |  |

First: If your total abundance is Less than 30 → Automatically give it a WQR of 10 (Very Poor rating).

Less than 60 → Automatically give it a WQR of 7 (Poor rating)

**Water Quality Rating =**

**Sum of (Count x Sensitivity)  
Divided By  
Total Abundance**

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