

APPENDIX A

List of cold- and warm-water preference taxa

This appendix contains the lists of taxa that were included in the cold- and warm-water preference trait groups in Utah, Maine and North Carolina. Lists have been sorted first by state, then by taxon. These lists were developed using thermal optima and tolerance values specific to each state and/or region, literature, case studies and best professional judgment (BPJ) from regional advisory groups. These lists are meant as a first step, not a final product. They should be further refined as more data become available. These lists have been developed for particular regions, but there is some overlap (e.g., some taxa occur on the cold-water list in more than one state). For more information, contact Jen Stamp (Jen.Stamp@tetrattech.com).

COLD-WATER LIST - MAINE

State	Order	Taxon	% Abundance	% Stations	Source
ME	Ephemeroptera	Ameletus	0.0	3.1	Literature (Poff et al. 2006)
ME	Trichoptera	Apatania	0.0	2.7	Literature (Poff et al. 2006)
ME	Odonata	Boyeria	0.3	37.8	Empirical - Maine (EPA 2010)
ME	Plecoptera	Capnia	0.0	0.6	Literature (Poff et al. 2006)
ME	Trichoptera	Diplectrona	0.2	5.5	Empirical - Maine (EPA 2010)
ME	Ephemeroptera	Epeorus	0.4	20.3	Empirical - Maine (EPA 2010)
ME	Ephemeroptera	Eurylophella	0.3	20.0	Empirical - Maine (EPA 2010)
ME	Trichoptera	Glossosoma	0.2	14.0	Empirical - Maine (EPA 2010)
ME	Diptera	Heterotrissocladius	0.1	8.6	Empirical - Maine (EPA 2010)
ME	Trichoptera	Hydatophylax	0.0	5.8	Empirical - Maine (EPA 2010)
ME	Odonata	Lanthus	0.0	1.3	Literature (Poff et al. 2006)
ME	Diptera	Larsia	0.1	6.8	Empirical - Maine (EPA 2010)
ME	Plecoptera	Leuctra	0.4	16.7	Empirical - Maine (EPA 2010)
ME	Trichoptera	Limnephilus	0.2	7.3	Empirical - Maine (EPA 2010)
ME	Diptera	Macropelopia	0.1	5.1	Empirical - Maine (EPA 2010)
ME	Trichoptera	Micrasema	0.1	10.3	Empirical - Maine (EPA 2010)
ME	Diptera	Natarsia	0.1	7.7	Empirical - Maine (EPA 2010)
ME	Plecoptera	Nemoura	0.0	0.5	Literature (Poff et al. 2006)
ME	Megaloptera	Nigronia	0.1	20.0	Empirical - Maine (EPA 2010)
ME	Trichoptera	Oligostomis	0.1	10.3	Empirical - Maine (EPA 2010)
ME	Coleoptera	Oulimnius	0.0	4.4	Literature (Vieira et al. 2006)
ME	Diptera	Pagastia	0.1	11.3	Empirical - Maine (EPA 2010)
ME	Trichoptera	Palaeagapetus	0.0	0.1	Literature (Harris & Lawrence 1978)
ME	Plecoptera	Paracapnia	0.0	2.0	Literature (Poff et al. 2006)
ME	Plecoptera	Paranemoura	0.0	0.4	Literature (Poff et al. 2006)
ME	Trichoptera	Parapsyche	0.1	3.2	Empirical - Maine (EPA 2010)
ME	Plecoptera	Peltoperla	0.0	0.5	Literature (Surdick & Gaufin 1978)
ME	Plecoptera	Perlodidae	0.3	25.0	Empirical - Maine (EPA 2010)
ME	Diptera	Prodiamesa	0.1	3.3	Empirical - Maine (EPA 2010)
ME	Plecoptera	Prostoia	0.0	0.1	Literature (Poff et al. 2006)
ME	Diptera	Pseudodiamesa	0.0	1.4	Literature (Beck 1977)
ME	Trichoptera	Psychoglypha	0.1	4.4	Empirical - Maine (EPA 2010)
ME	Plecoptera	Pteronarcys	0.0	9.4	Empirical - Maine (EPA 2010)
ME	Ephemeroptera	Rhithrogena	0.0	2.7	Literature (Poff et al. 2006)
ME	Plecoptera	Sweltsa	0.1	7.8	Empirical - Maine (EPA 2010)
ME	Plecoptera	Tallaperla	0.0	1.4	BPJ Regional Workgroup
ME	Plecoptera	Utacapnia	0.0	0.4	Literature (Poff et al. 2006)
ME	Plecoptera	Utaperla	0.0	0.2	Literature (Poff et al. 2006)
ME	Plecoptera	Zapada	0.0	0.1	Literature (Poff et al. 2006)

WARM-WATER LIST - MAINE

State	Order	Taxon	% Abundance	% Stations	Source
ME	Plecoptera	Acroneuria	0.8	39.0	Empirical - Maine (EPA 2010)
ME	Neotaenioglossa	Amnicola	0.8	18.9	Empirical - Maine (EPA 2010)
ME	Odonata	Argia	0.2	16.1	Empirical - Maine (EPA 2010)
ME	Plecoptera	Attaneuria	0.0	4.2	Literature (Poff et al. 2006)
ME	Ephemeroptera	Caenis	0.3	19.9	Empirical - Maine (EPA 2010)
ME	Diptera	Cardiocladius	0.0	6.1	Empirical - Maine (EPA 2010)
ME	Trichoptera	Ceraclea	0.2	17.9	Empirical - Maine (EPA 2010)
ME	Tubificida	Chaetogaster	0.1	8.2	Empirical - Maine (EPA 2010)
ME	Diptera	Dicrotendipes	0.3	19.9	Empirical - Maine (EPA 2010)
ME	Arhynchobdellida	Erpobdella	0.0	7.7	Empirical - Maine (EPA 2010)
ME	Basommatophora	Ferrissia	0.1	12.0	Empirical - Maine (EPA 2010)
ME	Trichoptera	Helicopsyche	0.4	12.3	Empirical - Maine (EPA 2010)
ME	Basommatophora	Helisoma	0.1	7.8	Empirical - Maine (EPA 2010)
ME	Diptera	Hemerodromia	0.3	30.6	Empirical - Maine (EPA 2010)
ME	Hydroida	Hydra	0.1	13.3	Empirical - Maine (EPA 2010)
ME	Trichoptera	Hydroptila	0.3	22.3	Empirical - Maine (EPA 2010)
ME	Ephemeroptera	Isonychia	0.9	26.5	Empirical - Maine (EPA 2010)
ME	Diptera	Labrundinia	0.1	16.1	Empirical - Maine (EPA 2010)
ME	Ephemeroptera	Leucrocuta	0.6	24.5	Empirical - Maine (EPA 2010)
ME	Trichoptera	Macrostemum	0.8	19.8	Empirical - Maine (EPA 2010)
ME	Trichoptera	Neureclipsis	2.6	37.7	Empirical - Maine (EPA 2010)
ME	Diptera	Nilotanyus	0.1	15.7	Empirical - Maine (EPA 2010)
ME	Trichoptera	Oecetis	0.6	36.0	Empirical - Maine (EPA 2010)
ME	Decapoda	Orconectes	0.1	11.7	Empirical - Maine (EPA 2010)
ME	Diptera	Parachironomus	0.2	9.8	Empirical - Maine (EPA 2010)
ME	Plecoptera	Paragnetina	0.1	12.1	Empirical - Maine (EPA 2010)
ME	Diptera	Pentaneura	0.2	16.4	Empirical - Maine (EPA 2010)
ME	Basommatophora	Physa	0.2	13.6	Empirical - Maine (EPA 2010)
ME	Basommatophora	Physella	0.3	18.3	Empirical - Maine (EPA 2010)
ME	Ephemeroptera	Plauditus	0.2	14.7	Empirical - Maine (EPA 2010)
ME	Hoplomertea	Prostoma	0.0	7.2	Empirical - Maine (EPA 2010)
ME	Diptera	Psectrocladius	0.3	19.0	Empirical - Maine (EPA 2010)
ME	Ephemeroptera	Pseudocloeon	0.2	13.3	Empirical - Maine (EPA 2010)
ME	Diptera	Rheopelopia	0.1	17.0	Empirical - Maine (EPA 2010)
ME	Ephemeroptera	Serratella	0.4	22.5	Empirical - Maine (EPA 2010)
ME	Ephemeroptera	Stenacron	1.1	23.1	Empirical - Maine (EPA 2010)
ME	Coleoptera	Stenelmis	0.4	33.0	Empirical - Maine (EPA 2010)
ME	Ephemeroptera	Stenonema	5.2	63.1	Empirical - Maine (EPA 2010)
ME	Diptera	Tribelos	0.3	9.2	Empirical - Maine (EPA 2010)
ME	Ephemeroptera	Tricorythodes	0.5	24.2	Empirical - Maine (EPA 2010)

COLD-WATER LIST - UTAH

State	Order	Taxon	% Abundance	% Stations	Source
UT	Ephemeroptera	Ameletus	0.0	21.6	Empirical - Utah (EPA 2010)
UT	Trichoptera	Anagapetus	0.0	0.3	Empirical - Idaho (Brandt 2001)
UT	Trichoptera	Apatania	0.0	6.1	Empirical - Utah (EPA 2010)
UT	Diptera	Bezzia	0.2	36.5	Empirical - Utah (EPA 2010)
UT	Diptera	Bibiocephala	0.0	2.4	Empirical - Utah (EPA 2010)
UT	Plecoptera	Capniidae	0.2	35.9	Empirical - Utah (EPA 2010)
UT	Diptera	Chelifera	0.2	41.1	Empirical - Utah (EPA 2010)
UT	Plecoptera	Chloroperlidae	0.4	48.7	Empirical - Utah (EPA 2010)
UT	Ephemeroptera	Cinygma	0.0	0.9	Empirical - Oregon (Yuan 2006)
UT	Ephemeroptera	Cinygmula	1.0	43.8	Empirical - Utah (EPA 2010)
UT	Plecoptera	Cultus	0.0	15.3	Empirical - Utah (EPA 2010)
UT	Diptera	Dicranota	0.1	34.7	Empirical - Utah (EPA 2010)
UT	Trichoptera	Ecclisomyia	0.0	2.2	Empirical - Oregon (Yuan 2006)
UT	Ephemeroptera	Ephemerella	1.9	46.0	Empirical - Utah (EPA 2010)
UT	Plecoptera	Glutops	0.0	0.6	Empirical - Idaho (Brandt 2001)
UT	Coleoptera	Heterlimnius	0.0	7.9	Empirical - Utah (EPA 2010)
UT	Ephemeroptera	Ironodes	0.0	0.9	Empirical - Oregon (Yuan 2006)
UT	Plecoptera	Kogotus	0.0	2.2	Empirical - Idaho (Brandt 2001)
UT	Trichoptera	Lepidostoma	0.8	37.8	Empirical - Utah (EPA 2010)
UT	Plecoptera	Leuctridae	0.1	16.7	Empirical - Utah (EPA 2010)
UT	Plecoptera	Megarcys	0.0	10.2	Empirical - Utah (EPA 2010)
UT		Nematoda	0.3	39.2	Empirical - Utah (EPA 2010)
UT	Trichoptera	Neothremma	0.3	15.8	Empirical - Utah (EPA 2010)
UT	Trichoptera	Oligophlebodes	0.3	15.9	Empirical - Utah (EPA 2010)
UT	Diptera	Oreogeton	0.0	2.1	Empirical - Idaho (Brandt 2001)
UT	Trichoptera	Parapsyche	0.0	6.3	Empirical - Utah (EPA 2010)
UT	Diptera	Pericoma	0.3	33.1	Empirical - Utah (EPA 2010)
UT	Diptera	Rhabdomastix	0.0	0.2	Empirical - Idaho (Brandt 2001)
UT	Ephemeroptera	Rhithrogena	0.4	38.3	Empirical - Utah (EPA 2010)
UT	Plecoptera	Taenionema	0.2	13.7	Empirical - Utah (EPA 2010)
UT	Plecoptera	Visoka	0.0	0.2	Empirical - Oregon (Yuan 2006)
UT	Diptera	Wiedemannia	0.0	2.1	Empirical - Idaho (Brandt 2001)
UT	Plecoptera	Yoraperla	0.0	0.8	Empirical - Idaho (Brandt 2001)

WARM-WATER LIST - UTAH					
State	Order	Taxon	% Abundance	% Stations	Source
UT	Hemiptera	Ambrysus	0.1	6.1	Empirical - Utah (EPA 2010)
UT	Isopoda	Asellidae	3.1	12.8	Empirical - Utah (EPA 2010)
UT	Ephemeroptera	Caenis	0.0	1.7	Empirical - Oregon (Yuan 2006)
UT	Plecoptera	Calineuria	0.0	1.4	Empirical - Oregon (Yuan 2006)
UT	Diptera	Caloparyphus	0.0	4.1	Empirical - Utah (EPA 2010)
UT	Trichoptera	Cheumatopsyche	0.4	16.5	Empirical - Utah (EPA 2010)
UT	Odonata	Coenagrionidae	0.1	18.4	Empirical - Utah (EPA 2010)
UT	Ephemeroptera	Leptohyphidae	1.4	31.0	Empirical - Utah (EPA 2010)
UT	Diptera	Maruina	0.0	2.5	Empirical - Oregon (Yuan 2006)
UT	Coleoptera	Microcyloepus	0.2	7.9	Empirical - Utah (EPA 2010)
UT	Trichoptera	Nectopsyche	0.0	5.5	Empirical - Utah (EPA 2010)
UT	Trichoptera	Ochrotrichia	0.0	4.6	Empirical - Utah (EPA 2010)
UT	Trichoptera	Oecetis	0.1	14.2	Empirical - Utah (EPA 2010)
UT	Coleoptera	Ordobrevia	0.0	0.8	Empirical - Oregon (Yuan 2006)
UT	Coleoptera	Psephenus	0.0	0.6	Empirical - Idaho (Brandt 2001)
UT	Trichoptera	Tinodes	0.0	5.4	Empirical - Utah (EPA 2010)

Note: the warm-water preference list in Utah was limited by the need to retain a family-level operational taxonomic unit for Chironomidae in the long-term data set.

COLD-WATER LIST - NORTH CAROLINA

State	Order	Taxon	% Abundance	% Stations	Source
NC	Ephemeroptera	Acentrella	0.3	15.2	Empirical - North Carolina (EPA 2010)
NC	Trichoptera	Agapetus	0.0	1.9	Literature (Poff et al. 2006)
NC	Plecoptera	Amphinemura	0.1	10.0	Empirical - North Carolina (EPA 2010)
NC	Diptera	Antocha	0.6	25.3	Empirical - North Carolina (EPA 2010)
NC	Trichoptera	Apatania	0.0	1.7	Literature (Poff et al. 2006)
NC	Trichoptera	Arctopsyche	0.0	1.4	Literature (Poff et al. 2006)
NC	Diptera	Atherix	0.2	8.5	Empirical - North Carolina (EPA 2010)
NC	Diptera	Cardiocladius	0.3	13.4	Empirical - North Carolina (EPA 2010)
NC	Ephemeroptera	Cinygmula	0.0	1.4	Literature (Poff et al. 2006)
NC	Plecoptera	Clioperla	0.1	5.5	Literature (Poff et al. 2006)
NC	Plecoptera	Cultus	0.0	2.5	Literature (Poff et al. 2006)
NC	Diptera	Diamesa	0.1	6.6	Empirical - North Carolina (EPA 2010)
NC	Diptera	Dicranota	0.2	10.1	Empirical - North Carolina (EPA 2010)
NC	Plecoptera	Diploperla	0.1	4.3	Literature (Poff et al. 2006)
NC	Trichoptera	Dolophilodes	0.4	11.2	Empirical - North Carolina (EPA 2010)
NC	Ephemeroptera	Drunella	0.3	7.8	Empirical - North Carolina (EPA 2010)
NC	Ephemeroptera	Epeorus	0.6	14.3	Empirical - North Carolina (EPA 2010)
NC	Diptera	Eukiefferiella	0.4	19.0	Empirical - North Carolina (EPA 2010)
NC	Trichoptera	Glossosoma	0.2	11.0	Empirical - North Carolina (EPA 2010)
NC	Diptera	Heleniella	0.0	1.8	Empirical - North Carolina (EPA 2010)
NC	Plecoptera	Isoperla	0.5	17.7	Empirical - North Carolina (EPA 2010)
NC	Odonata	Lanthus	0.1	10.7	Empirical - North Carolina (EPA 2010)
NC	Plecoptera	Malirekus	0.1	4.7	Literature (Poff et al. 2006)
NC	Ephemeroptera	Nixe	0.0	0.6	Empirical - North Carolina (EPA 2010)
NC	Diptera	Pagastia	0.1	5.6	Empirical - North Carolina (EPA 2010)
NC	Trichoptera	Parapsyche	0.0	1.9	Empirical - North Carolina (EPA 2010)
NC	Diptera	Potthastia	0.1	10.4	Empirical - North Carolina (EPA 2010)
NC	Coleoptera	Promoesia	0.4	11.8	Empirical - North Carolina (EPA 2010)
NC	Diptera	Rheopelopia	0.0	2.3	Empirical - North Carolina (EPA 2010)
NC	Ephemeroptera	Rhithrogena	0.1	5.4	Empirical - North Carolina (EPA 2010)
NC	Plecoptera	Tallaperla	0.4	13.4	Empirical - North Carolina (EPA 2010)
NC	Plecoptera	Zapada	0.0	0.1	Literature (Poff et al. 2006)

WARM-WATER LIST - NORTH CAROLINA

State	Order	Taxon	% Abundance	% Stations	Source
NC	Hemiptera	Belostoma	0.0	3.5	Empirical - NC (EPA 2010)
NC	Coleoptera	Berosus	0.2	9.9	Empirical - NC (EPA 2010)
NC	Isopoda	Caecidotea	0.4	19.4	Empirical - NC (EPA 2010)
NC	Trichoptera	Chimarra	0.6	19.7	Empirical - NC (EPA 2010)
NC	Unionoida	Elliptio	0.2	6.7	Empirical - NC (EPA 2010)
NC	Odonata	Epicordulia	0.0	2.8	Empirical - NC (EPA 2010)
NC		Erpobdella/Mooreobdella	0.1	7.5	Empirical - NC (EPA 2010)
NC	Rhyncho bdellida	Helobdella	0.1	8.0	Empirical - NC (EPA 2010)
NC	Odonata	Helocordulia	0.0	3.4	Empirical - NC (EPA 2010)
NC	Odonata	Hetaerina	0.1	5.4	Empirical - NC (EPA 2010)
NC	Odonata	Ischnura	0.0	3.6	Empirical - NC (EPA 2010)
NC	Coleoptera	Lioporeus	0.0	3.0	Empirical - NC (EPA 2010)
NC	Odonata	Macromia	0.6	28.9	Empirical - NC (EPA 2010)
NC	Trichoptera	Macrostemum	0.2	4.8	Empirical - NC (EPA 2010)
NC	Trichoptera	Neureclipsis	0.3	8.6	Empirical - NC (EPA 2010)
NC	Odonata	Neurocordulia	0.2	9.9	Empirical - NC (EPA 2010)
NC	Diptera	Nilothauma	0.0	4.4	Empirical - NC (EPA 2010)
NC	Decapoda	Palaemonetes	0.3	9.6	Empirical - NC (EPA 2010)
NC	Diptera	Parachironomus	0.1	4.6	Empirical - NC (EPA 2010)
NC	Diptera	Pentaneura	0.1	5.5	Empirical - NC (EPA 2010)
NC	Trichoptera	Phylocentropus	0.1	7.2	Empirical - NC (EPA 2010)
NC	Basommatophora	Physella	0.8	30.4	Empirical - NC (EPA 2010)
NC	Rhyncho bdellida	Placobdella	0.1	12.1	Empirical - NC (EPA 2010)
NC	Diptera	Procladius	0.4	25.1	Empirical - NC (EPA 2010)
NC	Diptera	Stenochironomus	0.4	26.7	Empirical - NC (EPA 2010)
NC	Odonata	Tetragoneuria	0.1	7.2	Empirical - NC (EPA 2010)
NC	Ephemeroptera	Tricorythodes	0.6	12.9	Empirical - NC (EPA 2010)

ADDITIONAL NOTES - cold-water taxa

The following genera were excluded from the *cold-water* lists in the designated states because of variation in thermal preference at the species-level:

Zapada (UT)
Epeorus (UT)
Drunella (UT)
Brachycentrus (UT)
Rhyacophila (UT, ME, NC)
Eukiefferiella (ME)
Ephemerella (NC)
Neophylax (NC)
Goera (NC)
Eurylophella (NC)
Paragnetina (NC)

ADDITIONAL NOTES - warm-water taxa

The following genera were excluded from the *warm-water* lists in the designated states because of variation in thermal preference at the species-level:

Brachycentrus (ME)
Hydropsyche (ME)
Ceratopsyche (ME)
Hydropsyche (NC)
Oecetis (NC)
Polypedilum (NC)

METADATA

State	State that the list was developed for (UT=Utah, ME=Maine, NC=North Carolina)
Order	Taxonomic level
Taxon	Highest level of taxonomic resolution
% Abundance	% of total individuals in the state database comprised of that taxon
% Stations	% of stations at which the taxon has been documented to occur
Source	Source of data

SOURCES

Abbreviated Citation	Full Citation
Literature (Beck 1977)	Beck, W.M. Jr. 1977. Environmental Requirements and Pollution Tolerance of Common Freshwater Chironomidae. Report EPA-600/4-77-024. U.S. EPA, Washington, D.C. 260 p.
Literature (Harris and Lawrence 1978)	Harris, T.L., and T.M. Lawrence. 1978. Environmental Requirements and Pollution Tolerance of Trichoptera. Report No. EPA-600/4-78-063. U.S. EPA, Washington, D.C. 316 p.
Literature (Poff et al. 2006)	Poff, N.L., J.D. Olden, N.K.M. Vieira, D.S. Finn, M.P. Simmons, and B.C. Kondratieff. 2006. Functional trait niches of North American lotic insects: traits-based ecological applications in light of phylogenetic relationships. <i>Journal of the North American Benthological Society</i> 25(4):730-755 (Trait Matrix, Appendix)

SOURCES

Abbreviated Citation	Full Citation
Literature (Surdick and Gaufin 1978)	Surdick, R.F., and A.R. Gaufin. 1978. Environmental Requirements and Pollution Tolerance of Plecoptera. Report No. EPA-600/4-78-062. U.S. EPA, Washington, D.C. 423 p.
Literature (Vieira et al. 2006)	Vieira, N.K.M., N.L. Poff, D.M. Carlisle, S.R. Moulton II, M.K. Koski, and B.C.Kondratieff. 2006. A database of lotic invertebrate traits for North America: U.S. Geological Survey Data Series 187. Available at: http://pubs.water.usgs.gov/ds187
Empirical - North Carolina (EPA 2010)	EPA GCRP State Biomonitoring Data Climate Change Pilot Project 2010: Freshwater Biological Traits Table for North Carolina. Maximum likelihood inferences were based on a subset of the North Carolina biomonitoring database comprised of standard qualitative/full-scale collection method samples only. Maximum likelihood calculations were used instead of weighted average inference because abundance data in the North Carolina biomonitoring database are categorical (1=rare (1-2 specimens), 3=common (3-9 species) and 10=abundant (10 or more species). Calculations were based on instantaneous water temperature measurements and occurrences of organisms using the guidelines described by Yuan (2006). For more information contact Lei Zheng (Lei.Zheng@tetrattech.com).
Empirical - Maine (EPA 2010)	EPA GCRP State Biomonitoring Data Climate Change Pilot Project 2010: Freshwater Biological Traits Table for Maine. Weighted average inferences are based on a subset of the Maine biomonitoring data. Average July, August, and September temperature values from 616 sites were used in this analysis. Calculations were based on instantaneous water temperature measurements and occurrences of organisms using the guidelines described by Yuan (2006). For more information contact Lei Zheng (Lei.Zheng@tetrattech.com).

SOURCES

Abbreviated Citation**Full Citation**

Empirical - Oregon (Yuan 2006)

Yuan, Lester. 2006. Estimation and Application of Macroinvertebrate Tolerance Values. Report No. EPA/600/P-04/116F. National Center for Environmental Assessment, Office of Research and Development, U.S. Environmental Protection Agency, Washington, D.C.

Empirical - Utah (EPA 2010)

EPA GCRP State Biomonitoring Data Climate Change Pilot Project 2010: Freshwater Biological Traits Table for Utah. Weighted average inferences are based on a subset of the Utah biomonitoring data comprised of 572 fall samples. Calculations were based on instantaneous water temperature measurements and occurrences of organisms using the guidelines described by Yuan (2006). For more information contact Lei Zheng (Lei.Zheng@tetrattech.com).

Empirical - Idaho (Brandt 2001)

Brandt, Darren. 2001. Temperature Preferences and Tolerances for 137 Common Idaho Macroinvertebrate Taxa. Idaho Department of Environmental Quality. Coeur d'Alene, ID.

BPJ Regional Workgroup

Best professional judgment of regional workgroup
