

Macroinvertebrate Field Data Sheet

Survey site name: _____

Survey date: _____ Participants: _____

Common name	Order	Family	SIGNAL	Card no.	Tick if present
Stonefly nymph	Plecoptera		10	1	
Mayfly nymph	Ephemeroptera		9	2	
Snail-shelled Caddisfly larva	Trichoptera	Helicopsychidae	8	3	
Toe biter	Megaloptera		8	4	
Sleeping bag caddisfly larvae	Trichoptera	Calamoceratidae	7	5	
Cone-shaped caddisfly larvae	Trichoptera	Conoesucidae	7	6	
Riffle Beetle	Coleoptera	Elmidae	7	7	
Stick caddisfly larva	Trichoptera	Leptoceridae	6	8	
Net spinning caddisfly larva	Trichoptera	Hydropsychidae	6	9	
Water mite	Arachnida (Class) Acarina (subclass)		6	10	
Marsh beetle larva	Coleoptera	Scirtidae	6	11	
Water penny larva	Coleoptera	Psephenidae	6	12	
Long jawed Spider	Arachnida (Class)	Tetrangthidae	6	13	
Azure damselfly larva	Zygoptera (Suborder)	Diphlebiidae	6	14	
Toad Bug	Hemiptera	Gelastocoridae	5	15	
Water flea	Crustacea (subphylum) Cladocera		5	16	
Whirligig beetle adult	Coleoptera	Gyrinidae	4	17	
Whirligig beetle larva	Coleoptera	Gyrinidae	4	18	
Water Strider	Hemiptera	Gerridae	4	19	
Freshwater crayfish & yabby	Decapoda	Parastacidae	4	20	
Freshwater shrimp & prawns	Crustacea (subphylum) Decapoda		4	21	
Seed shrimp	Crustacea (subphylum) Ostracoda (subclass)		4	22	
Riffle shrimp	Decapoda	Atyidae	4	23	
Water Measurer	Hemiptera	Hydrometridae	3	24	
Dragonfly larva	Odonata	Epipoctophora	3	25	
Small water strider	Hemiptera	Velidae	3	26	
Mussel	Bivalvia (class)		3	27	
Water Scavenger beetle adult	Coleoptera	Hydrophilidae & Hydrochidae	3	28	
Amphipod	Crustacea (subphylum) Amphipoda		3	29	
Non-biting midge larva	Diptera	Chironomidae	3	30	
Pond damselfly larva	Zygoptera (Suborder)	Coenagrionidae	2	31	
Predacious diving beetle adult	Coleoptera	Dytiscidae	2	32	
Predacious diving beetle larva	Coleoptera	Dytiscidae	2	33	
Waterboatman	Hemiptera	Corixidae	2	34	
Creeping water bug	Hemiptera	Naucoridae	2	35	
Pygmy Backswimmer	Coleoptera	Pleidae	2	36	

Flat worm	Platyhelminthes (phylum) Turbellaria (class)		2	37
Water Slater / isopod	Isopoda		2	38
Mosquito larva	Diptera	Culicidae	1	39
Freshwater snail	Gastropoda		1	40
Leech	Annelida (phylum) Hirudinea (class)		1	41
Segmented worm	Annelida (phylum) Oligochaeta (class)		1	42
Backswimmer	Coleoptera	Notonectidae	1	43
Giant water bug	Hemiptera	Belostomatidae	1	44

Calculate a Pollution Sensitivity SIGNAL Score

Calculating the score is as simple as following four basic steps:

Step 1

Make a list of the water bugs found and their SIGNAL index numbers (above)

Step 2

Add the individual SIGNAL index numbers together.

e.g. $4 + 2 + 4 + 6 = 16$

Step 3

Divide this number by the number of different types of water bugs found.

e.g. $16 \div 4 = 4$

This is the SIGNAL Score for your site

Step 4

Find where the SIGNAL Score sits in the following table to determine waterways health:

SIGNAL Score	Waterway Health
Higher than 6	Healthy Waterway
Between 5-6	Mild Pollution
Between 4-5	Moderate Pollution
Less than 4	Severe Pollution

Your waterway is considered: