



Norwich Western Link

Environmental Statement

Chapter 10: Biodiversity

Appendix 10.12: Aquatic Ecology

Survey Report 2022

Sub Appendix A: Aquatic

Macroinvertebrate Taxon List

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1 Appendix A – Aquatic Macroinvertebrate Taxon List

- 1.1.1 An aquatic macroinvertebrate taxon list, including relevant Conservation Scores and abundance in spring and autumn for the River Wensum, Foxburrow Stream and ditches is shown in **Table 1-1**.

Table 1-1 Aquatic macroinvertebrate taxon list including relevant Conservation Scores (CS) and abundance in spring (S) and autumn (A). River Wensum (RW). Foxburrow Stream (FS). Upstream (US). Downstream (DS)

Not Applicable	Not Applicable	Not Applicable	Not Applicable	RW US	RW US	RW DS	RW DS	FS	FS	Ditch C	Ditch C	Ditch B	Ditch B
Order	Family	Species / taxon name	CS	S	A	S	A	S	A	S	A	S	A
Amphipoda	Crangonyctidae	<i>Crangonyx Pseudogracilis/Florida nus</i> Agg.	No Data	0	2	0	0	0	0	2	0	18	1
Amphipoda	Crangonyctidae	Crangonyctidae	No Data	0	0	3	0	0	0	0	0	0	0
Amphipoda	Gammaridae	<i>Gammarus Pulex/Fossarum</i> Agg.	No Data	0	4	0	2	469	318	2	3	0	0
Amphipoda	Gammaridae	Gammaridae	No Data	2	0	14	0	0	0	0	0	0	0
Bivalvia	Dreissenidae	Dreissenidae	No Data	2	0	0	0	0	0	0	0	0	0
Bivalvia	Sphaeriidae	<i>Pisidium</i> Sp.	No Data	0	0	0	0	77	29	12	0	0	0
Bivalvia	Sphaeriidae	<i>Sphaerium Corneum</i>	1	0	0	0	0	0	0	0	0	6	1
Bivalvia	Sphaeriidae	<i>Sphaerium</i> Sp.	No Data	10	7	3	0	0	0	0	0	6	3
Bivalvia	Sphaeriidae	Sphaeriidae	No Data	13	17	7	0	0	4	0	0	0	0
Coleoptera	Dytiscidae	<i>Agabus Bipustulatus</i>	1	0	0	0	0	0	0	0	0	3	0
Coleoptera	Dytiscidae	Dytiscidae	No Data	1	1	0	1	0	0	0	4	0	9
Coleoptera	Dytiscidae	<i>Hydroporus Lacustris</i>	No Data	0	0	0	0	0	0	0	0	2	0
Coleoptera	Dytiscidae	<i>Hydroporus</i> Sp.	No Data	0	0	0	0	0	0	0	0	0	4
Coleoptera	Dytiscidae	<i>Laccophilus Hyalinus</i>	1	0	0	0	0	0	0	0	1	0	0
Coleoptera	Elmidae	<i>Elmis Aenea</i>	1	0	0	0	0	0	0	0	1	0	0
Coleoptera	Elmidae	Elmidae	No Data	1	0	6	1	0	0	0	0	0	11
Coleoptera	Elmidae	<i>Oulimnius</i> Sp.	No Data	0	2	0	2	0	0	0	0	0	0
Coleoptera	Gyrinidae	Gyrinidae	No Data	0	0	1	1	0	0	0	0	0	0
Coleoptera	Haliplidae	<i>Haliplus Confinis</i>	2	0	0	0	0	0	0	1	0	0	0
Coleoptera	Haliplidae	<i>Haliplus Lineatocollis</i>	1	0	1	0	0	0	0	0	0	0	0
Coleoptera	Haliplidae	<i>Haliplus Ruficollis</i> Group.	1	0	0	0	0	0	0	0	36	0	0
Coleoptera	Haliplidae	Halplidae	No Data	8	0	0	0	0	0	1	17	0	0

Not Applicable	Not Applicable	Not Applicable	Not Applicable	RW US	RW US	RW DS	RW DS	FS	FS	Ditch C	Ditch C	Ditch B	Ditch B
Coleoptera	Hydraenidae	<i>Hydraena Rufipes</i>	7	0	0	0	0	0	0	0	1	1	0
Coleoptera	Hydraenidae	Hydraenidae	No Data	1	0	0	0	0	0	0	0	0	0
Coleoptera	Hydraenidae	<i>Ochthebius Sp.</i>	No Data	0	0	0	0	0	0	0	1	11	0
Coleoptera	Hydrophilidae	<i>Anacaena Limbata</i>	1	0	1	0	0	0	0	0	0	0	11
Coleoptera	Hydrophilidae	<i>Cercyon Marinus</i>	3	0	0	0	0	0	0	0	0	1	0
Coleoptera	Hydrophilidae	<i>Helophorus Brevipalpis</i>	1	0	1	0	0	1	0	1	0	1	5
Coleoptera	Hydrophilidae	<i>Helophorus Grandis</i>	2	0	0	0	0	1	0	0	0	1	0
Coleoptera	Hydrophilidae	Hydrophilidae	No Data	2	0	1	0	0	0	0	0	34	0
Coleoptera	Noteridae	<i>Noterus Clavicornis</i>	2	0	0	0	0	0	0	0	0	0	1
Coleoptera	Scirtidae	<i>Elodes Sp.</i>	No Data	0	0	0	0	13	0	0	0	0	0
Coleoptera	Scirtidae	Scirtidae	No Data	0	0	0	0	0	11	0	0	0	0
Diptera	Ceratopogonidae	Ceratopogonidae	No Data	0	0	1	0	1	1	0	0	0	0
Diptera	Chironomidae	Chironomidae	No Data	20	11	3	26	182	35	19	12	14	19
Diptera	Culicidae	Culicidae	No Data	0	0	0	10	0	1	0	0	0	83
Diptera	Dixidae	Dixidae	No Data	0	1	0	0	0	17	0	0	0	0
Diptera	Dolichopodidae	Dolichopodidae	No Data	0	0	0	0	0	0	0	0	0	6
Diptera	Dolichopodidae	<i>Hydrophorus Sp.</i>	No Data	0	0	0	0	0	0	0	0	5	0
Diptera	Empididae	Empididae	No Data	2	0	0	0	0	0	0	0	0	0
Diptera	Limoniidae	Limoniidae	No Data	0	0	0	0	1	0	0	0	0	4
Diptera	Pediciidae	<i>Dicranota Sp.</i>	No Data	0	0	0	0	0	3	0	0	0	0
Diptera	Psychodidae	Psychodidae	No Data	0	1	0	1	1	0	2	1	31	28
Diptera	Ptychopteridae	Ptychopteridae	No Data	0	0	0	0	5	81	0	0	18	22
Diptera	Simuliidae	Simuliidae	No Data	0	0	0	0	73	7	0	0	0	0
Diptera	Stratiomyidae	Stratiomyidae	No Data	0	0	0	0	1	0	0	0	4	10
Diptera	Tabanidae	Tabanidae	No Data	0	0	0	0	0	0	0	1	1	1
Diptera	Tipulidae	Tipulidae	No Data	3	0	0	0	0	0	0	0	0	1

Not Applicable	Not Applicable	Not Applicable	Not Applicable	RW US	RW US	RW DS	RW DS	FS	FS	Ditch C	Ditch C	Ditch B	Ditch B
Ephemeroptera	Baetidae	<i>Baetis Scambus/Fuscatus Agg.</i>	No Data	0	0	0	16	0	0	2	5	0	0
Ephemeroptera	Baetidae	<i>Baetis Sp.</i>	No Data	0	0	0	0	0	2	0	0	0	0
Ephemeroptera	Baetidae	Baetidae	No Data	23	3	37	0	3	0	0	8	0	0
Ephemeroptera	Baetidae	<i>Procloeon Bifidum</i>	6	0	1	0	0	0	0	0	1	0	0
Ephemeroptera	Caenidae	Caenidae	No Data	2	0	1	0	0	0	0	0	0	0
Ephemeroptera	Ephemerellidae	Ephemerellidae	No Data	13	0	29	0	0	0	0	0	0	0
Ephemeroptera	Leptophlebiidae	Leptophlebiidae	No Data	1	0	0	0	0	0	0	0	0	0
Ephemeroptera	Potamanthidae	Potamanthidae	No Data	0	0	1	0	0	0	0	0	0	0
Gastropoda	Acroloxiidae	<i>Acroloxus Lacustris</i>	2	0	1	0	7	0	0	2	1	0	1
Gastropoda	Acroloxiidae	Acroloxiidae	No Data	3	0	3	0	0	0	0	0	0	0
Gastropoda	Ancylidae	<i>Ancylus Fluviatilis</i>	1	0	0	0	6	0	0	0	0	0	0
Gastropoda	Ancylidae	Ancylidae	No Data	10	0	2	0	0	0	0	0	0	0
Gastropoda	Bithyniidae	<i>Bithynia Leachii</i>	5	0	67	0	2	0	0	0	0	0	0
Gastropoda	Bithyniidae	<i>Bithynia Tentaculata</i>	1	0	83	0	48	0	0	4	9	1	0
Gastropoda	Bithyniidae	Bithyniidae	No Data	96	0	52	0	0	0	0	0	0	0
Gastropoda	Hydrobiidae	<i>Potamopyrgus Antipodarum</i>	1	112	201	27	73	0	0	1	0	0	0
Gastropoda	Lymnaeidae	<i>Ampullaceana Balthica</i>	No Data	0	1	0	2	0	0	5	6	1	0
Gastropoda	Lymnaeidae	Lymnaeidae	No Data	26	17	1	19	0	0	1	2	0	0
Gastropoda	Lymnaeidae	<i>Lymnaea Stagnalis</i>	1	0	0	0	0	0	0	0	3	0	0
Gastropoda	Lymnaeidae	<i>Stagnicola Sp.</i>	No Data	0	0	0	0	0	0	4	0	0	0
Gastropoda	Neritidae	<i>Theodoxus Fluviatilis</i>	3	1	0	1	1	0	0	0	0	0	0
Gastropoda	Physidae	<i>Physa Fontinalis</i>	1	0	2	0	1	0	0	0	0	0	0
Gastropoda	Physidae	Physidae	No Data	2	0	0	14	0	0	0	0	0	0
Gastropoda	Planorbidae	<i>Anisus Vortex</i>	1	0	76	0	8	0	0	0	6	0	0
Gastropoda	Planorbidae	<i>Bathyomphalus Contortus</i>	2	0	0	0	0	0	0	0	0	0	16

Not Applicable	Not Applicable	Not Applicable	Not Applicable	RW US	RW US	RW DS	RW DS	FS	FS	Ditch C	Ditch C	Ditch B	Ditch B
Gastropoda	Planorbidae	<i>Gyraulus Albus</i>	1	0	0	0	15	0	0	0	0	0	0
Gastropoda	Planorbidae	<i>Gyraulus Crista</i>	2	0	0	0	3	0	0	0	0	0	0
Gastropoda	Planorbidae	<i>Hippeutis Complanatus</i>	3	0	0	0	1	0	0	0	0	1	2
Gastropoda	Planorbidae	<i>Planorbarius Corneus</i>	4	0	0	0	0	0	0	0	0	0	1
Gastropoda	Planorbidae	<i>Planorbis Carinatus</i>	1	0	6	0	0	0	0	0	0	0	8
Gastropoda	Planorbidae	<i>Planorbis Contorus</i>	2	0	0	0	0	0	0	0	0	6	0
Gastropoda	Planorbidae	Planorbidae	No Data	6	0	1	0	0	0	0	0	14	0
Gastropoda	Valvatidae	<i>Valvata Cristata</i>	2	0	0	0	0	0	0	1	0	0	0
Gastropoda	Valvatidae	<i>Valvata Piscinalis</i>	1	14	2	0	1	0	0	0	0	0	0
Gastropoda	Valvatidae	Valvatidae	No Data	4	121	3	13	0	0	0	0	41	6
Hemiptera	Corixidae	Corixidae	No Data	0	0	0	0	0	0	0	2	0	0
Hemiptera	Corixidae	<i>Sigara Dorsalis</i>	1	0	0	0	0	0	0	0	21	0	0
Hemiptera	Gerridae	<i>Gerris Lacustris</i>	1	0	2	0	4	0	0	0	0	0	0
Hemiptera	Gerridae	Gerridae	No Data	0	2	0	0	0	0	0	3	0	0
Hemiptera	Hydrometridae	<i>Hydrometra Stagnorum</i>	2	0	1	0	0	0	0	0	1	0	0
Hemiptera	Nepidae	<i>Nepa Cinerea</i>	3	0	0	0	0	0	0	1	1	0	0
Hemiptera	Nepidae	Nepidae	No Data	0	0	1	0	0	0	0	0	0	0
Hemiptera	Notonectidae	<i>Notonecta Glauca</i>	1	0	0	0	0	0	0	0	1	0	0
Hemiptera	Veliidae	Veliidae	No Data	1	0	0	0	0	0	0	0	0	0
Hirudinea	Erpobdellidae	<i>Erpobdella Octoculata</i>	1	0	0	0	0	0	0	1	0	0	0
Hirudinea	Erpobdellidae	<i>Erpobdella Sp.</i>	No Data	0	0	0	0	0	0	1	0	0	0
Hirudinea	Erpobdellidae	Erpobdellidae	No Data	1	0	4	0	0	0	0	1	1	0
Hirudinea	Glossiphonidae	<i>Glossiphonia Complanata</i>	1	0	2	0	1	1	0	1	1	0	1
Hirudinea	Glossiphonidae	Glossiphonidae	No Data	1	0	0	0	0	0	0	0	0	0
Hirudinea	Glossiphonidae	<i>Helobdella Stagnalis</i>	1	0	0	0	0	0	0	0	0	1	1

Not Applicable	Not Applicable	Not Applicable	Not Applicable	RW US	RW US	RW DS	RW DS	FS	FS	Ditch C	Ditch C	Ditch B	Ditch B
Isopoda	Asellidae	<i>Asellus Aquaticus</i>	1	9	35	15	12	0	0	11	17	32	122
Isopoda	Asellidae	<i>Prosellus Meridianus</i>	3	0	0	0	0	1	5	0	0	1	0
Lepidoptera	Lepidoptera	Lepidoptera	No Data	0	0	0	0	0	0	0	0	1	0
Megaloptera	Sialidae	<i>Sialis Lutaria</i>	1	0	0	0	0	0	0	1	0	0	0
Megaloptera	Sialidae	Sialidae	No Data	0	0	1	0	0	0	0	0	0	0
Odonata	Calopterygidae	<i>Calopteryx Sp.</i>	No Data	0	5		2	0	0	0	0	0	0
Odonata	Calopterygidae	Calopterigidae	No Data	0		9		0	0	0	0	0	0
Odonata	Coenagrioniidae	Coenagrioniidae	No Data	0	8	1	1	0	0	0	0	0	0
Odonata	Libellulidae	<i>Sympetrum Sp.</i>	No Data	0	0	0	0	0	0	0	1	0	0
Odonata	Platycnemididae	Platycnemididae	No Data	0	0	0	0	0	0	0	1	0	0
Oligochaeta	Oligochaeta	Oligochaeta	No Data	0	0	1	0	0	1	6	0	0	11
Plecoptera	Nemouridae	<i>Nemoura Sp.</i>	No Data	0	0	0	0	1	0	0	0	0	0
Plecoptera	Nemouridae	<i>Nemoura Avicularis</i>	4	0	0	0	0	6	0	0	0	0	0
Plecoptera	Nemouridae	<i>Nemurella Picteti</i>	2	0	0	0	0	0	18	0	0	0	0
Trichoptera	Beraeidae	<i>Beraea Pullata</i>	4	0	0	0	0	1	1	0	0	0	0
Trichoptera	Brachycentridae	<i>Brachycentrus Subnubilus</i>	6	0	3	0	1	0	0	0	0	0	0
Trichoptera	Brachycentridae	Brachycentridae	No Data	0	0	3	0	0	0	0	0	0	0
Trichoptera	Hydroptilidae	Hydroptilidae	No Data	0	1	1	1	0	0	0	0	0	0
Trichoptera	Lepidostomatidae	Lepidostomatidae	No Data	1	0	0	0	0	0	0	0	0	0
Trichoptera	Leptoceridae	<i>Adicella Reducta</i>	3	0	0	0	0	1	0	0	0	0	0
Trichoptera	Leptoceridae	<i>Athripsodes Sp.</i>	No Data	0	0	0	0	0	0	0	1	0	0
Trichoptera	Limnephilidae	<i>Anabolia Nervosa</i>	2	0	0	0	0	0	0	1	0	0	0
Trichoptera	Limnephilidae	Limnephilidae	No Data	20	1	8	3	9	1	3	0	4	0
Trichoptera	Limnephilidae	<i>Limnephilus Lunatus</i>	1	0	0	0	0	6	0	8	0	1	0
Trichoptera	Polycentropodidae	<i>Plectrocnemia Conspersa</i>	2	0	0	0	0	0	1	0	0	0	0

Not Applicable	Not Applicable	Not Applicable	Not Applicable	RW US	RW US	RW DS	RW DS	FS	FS	Ditch C	Ditch C	Ditch B	Ditch B
Trichoptera	Polycentropodidae	<i>Polycentropus Flavomaculatus</i>	2	0	0	0	2	0	0	0	0	0	0
Trichoptera	Polycentropodidae	Polycentropodidae	No Data	0	0	1	0	0	0	0	0	0	0
Tricladida	Dugesiiidae	<i>Dugesia</i> Sp.	No Data	0	0	0	0	0	0	0	0	0	2
Tricladida	Dugesiiidae	<i>Dugesia Lugubris/Polychroa</i>	2	0	0	0	0	1	0	0	0	0	0
Tricladida	Dendrocoelidae	Dendrocoelidae	No Data	0	0	0	0	0	0	0	0	0	1
Tricladida	Planariidae	<i>Polycelis</i> Sp.	No Data	0	0	0	0	0	2	0	0	0	10
Tricladida	Planariidae	Planariidae	No Data	19	0	0	0	0	0	0	0	5	0
Not Applicable	Not Applicable	Total No. Of Taxa	No Data	33	35	32	34	22	19	26	32	31	31
Not Applicable	Not Applicable	Total Abundance	No Data	430	690	242	301	855	538	94	170	267	402