

Aquatic surveys Kyre Park, Worcestershire, June 2017

Will Watson

(This article is an outcome of the Worcestershire Recorders field recording day to Kyre Park 3rd June 2017 – Ed.)

The Main Pond at Kyre Park, also known as ‘The River’, supports one of the richest aquatic invertebrate assemblages I have ever seen. From just one visit, on 3rd June 2017, we recorded a total of 73 species in this pond and 78 from the site as a whole. To put this into perspective, 50 species would be enough to place it within the ‘very high’ category for lowland ponds. According to the National Pond Survey undertaken in 1998, only 2% of ponds surveyed reached the ‘very high’ ranking. But it has to be said we didn’t quite play by the rules for ‘conservation assessment of wetland macroinvertebrates’ devised in the 1990s by Pond Action (now the Freshwater Habitats Trust). This total was achieved by Giles King-Salter and myself dipping, with Mike Averill recording Odonata and other day-flying invertebrates. The Freshwater Habitats Trust advocate a standard

three minute sampling time for netting (actual net-in-the-water time), but we must have exceeded this by a considerable amount.

One of the reasons the pool is so rich is that it has excellent habitat structure, with good representation of floating, submerged and emergent aquatic vegetation. What is also significant to the quality of the site is that the Main Pond is the least silted of the four ponds at Kyre Park. I would also expect that the water quality is good in all the pools at Kyre.

None of the species recorded are listed in the most up-to-date IUCN threat categories. However, the water scavenger beetle *Helochares punctatus* has very few records within the West Midlands and can be considered a local species. The attractive medium-sized diving beetle *Rhantus exsoletus*, which is typical of permanent pools and lakes, has also got a restricted distribution in Worcestershire. The water scavenger beetle *Hydrobius subrotundus* may be a first county record, but this taxon has only recently been given full species status and there is insufficient data to indicate its national status. The diving beetle *Ilybius fenestratus* is confined to well-vegetated eutrophic lakes; Kyre Park is towards the western edge of its distribution.

Number of aquatic invertebrate species recorded from Kyre Park

Group	Common Name	Main Pond ('The River')	Waterlily Pond	Outflow Stream	Whole Site
Coleoptera	Water Beetles	27	7	5	28
Hemiptera	Water Bugs	15	2	1	15
Mollusca	Molluscs	10	3	4	12
Odonata	Dragonflies & Damselflies	9	1	1	9
Hirudinea	Leeches	3	1	3	4
Trichoptera	Caddisflies			2	2
Crustacea	Crustaceans	2			2
Lepidoptera	Butterflies & Moths	2			2
Ephemeroptera	Mayflies	1			1
Megaloptera	Alderflies	1			1
Plecoptera	Stoneflies	1			1
Tricladida	Flatworms	1			1
	Total species	73	14	16	78

It is always nice to find the tiny corixid *Micronecta scholtzi*, only 2 mm long. This species has a local distribution in Worcestershire due to the low availability of its preferred habitat of pools and lakes with gravelly margins. It is also a recent coloniser from the south and east of England. The courtship song of the males has been recorded at 99 decibels, comparable to a passing freight train!

In addition to the recognised aquatic species, we also recorded some ‘terrestrial’ species from the adjacent marsh vegetation. These included the local reed beetle *Plateumaris sericea* and the Water Ladybird (or 19-spot Ladybird) *Anisosticta novemdecimpunctata*. Data from the National Ladybird Survey indicates the latter is declining nationally. Two moths with aquatic caterpillars were recorded by Mike Averill: the Brown China-mark *Elophila nymphaeata* (08) and the Small China-mark *Cataclysta lemnata*. The Small China-mark has very few Worcestershire records.

So what of the other pools? I was so engrossed in surveying the Main Pond that I never got round to looking at the other pools. Giles had a brief look at the Waterlily Pond and the Outflow Stream, which contained a few species not found in the Main Pond. We didn’t have time to survey the large fish pond at the north-western edge of the Park (Hanning’s Pool), so that would be worth looking at on a future visit.

One further point to mention is that on a later visit to the site I noticed that the water levels in the Main Pond had dropped by about half a metre. The Estate Manager confirmed that there was an issue

with the water supply leading into the pools. Apparently workmen from the Council when relieving flooding on the adjacent road had left sandbags behind which ended up in the drain feeding the pools. We very much hope that the problems with the inflow can be sorted out as soon as possible to ensure that this valuable ecological site is not harmed as a consequence.



08. Pupa of the Brown China-mark *Elophila nymphaeata* inside a case made of cut leaf segments. W Watson

Aquatic species recorded from Kyre Park

Species	Grid reference	Location	County	VC	Date	Finder	Determiner
Water beetles							
<i>Agabus nebulosus</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Hyphydrus ovatus</i> (01)	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Ilybius fuliginosus</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Ilybius ater</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Ilybius fenestratus</i> (02)	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Dytiscus sp. Larva</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Hygrotus versicolor</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	G N Foster
<i>Hygrotus inaequalis</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Colymbetes fuscus</i> (larva)	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Hygrobia hermanni</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Laccophilus minutus</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Helophorus aequalis</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	G N Foster
<i>Noterus clavicornis</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Anisosticta novemdecimpunctata</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Helophorus brevipalpis</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	G N Foster
<i>Haliplus lineatocollis</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	G N Foster
<i>Haliplus immaculatus</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	G N Foster
terrestrial weevil	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	G N Foster
<i>Plateumaris sericea</i> (02)	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	G N Foster
<i>Hydroporus planus</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	G N Foster
<i>Altica sp.</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	G N Foster
<i>Helochares punctatus</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	G N Foster
<i>Dryops luridus</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	G N Foster
<i>Hydroporus palustris</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	G N Foster
<i>Laccobius minutus</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	G N Foster
<i>Laccobius bipunctatus</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	G N Foster
<i>Anacaena limbata</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	G N Foster
Aquatic Bugs							
<i>Plea minutissima</i> (03)	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Microvelia reticulata</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Ranatra linearis</i> (nymph)	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Corixa punctata</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Hesperocorixa sahlbergi</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Notonecta sp. (nymph)</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Ilyocoris cimicoides</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Micronecta scholtzi</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Gerris gibbifer</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Gerris lacustris</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Hydrometra stagnorum</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C	W R C

<i>Nepa cinerea</i> Water scorpion (09)	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
Aquatic Molluscs							
<i>Lymnaea palustris</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Acroloxus lacustris</i> (04)	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Potamopygus antipodarum</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Hippeutis complanatus</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Radix balthica</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Lymnaea stagnalis</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Planorbis carinatus</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Musculium lacustre</i> (05)	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
Leeches							
<i>Theromyzon tessulatum</i> Duck leech (06)	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Helobdella stagnalis</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
Mayfly							
<i>Cloeon dipterum</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
Crustaceans							
<i>Asellus aquaticus</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Crangonyx pseudogracilis</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
Terrestrial Beetles							
<i>Aphthona nonstriata</i> Yellow iris flea beetle	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
Amphibians							
<i>Rana temporaria</i> tadpoles	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Bufo bufo</i> tadpole	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Lissotriton sp.</i> tadpole probably <i>vulgaris</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
Odonata							
<i>Ischnura elegans</i> Blue-tailed Damselfly	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	M Averill	M Averill
<i>Erythronma najas</i> Red-eyed Damselfly	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	M Averill	M Averill
<i>Pyrrosoma nymphula</i> Large Red Damselfly	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	M Averill	M Averill
<i>Coenagrion puella</i> Azure Damselfly	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	M Averill	M Averill
<i>Enallagma cyathigerum</i> Common Blue Damselfly	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	M Averill	M Averill
<i>Libellula quadrimaculata</i> Four-spotted Chaser	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	M Averill	M Averill
<i>Libellula depressa</i> Broad-Bodied Chaser	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	M Averill	M Averill
<i>Orthetrum cancellatum</i> Black-Tailed Skimmer	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	M Averill	M Averill
<i>Anax imperator</i> Emperor Dragonfly	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	M Averill	M Averill
Aquatic Plants							
<i>Ranunculus aquatilis</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Ceratophyllum demersum</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Ceratophyllum submersum</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Myriophyllum spicatum</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Lemna trisulca</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Lemna minor</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson
<i>Lysimachia nummularia</i>	SO62536346	Fish Pond, Kyre Park	Worcestershire	37	03/06/2017	W R C Watson	W R C Watson



01. *Hyphydrus ovatus*. W. Watson



02. The Reed Beetle *Plateumaris sericea*. W. Watson



03. *Plea minutissima*. W. Watson



04. Lake Limpet *Acroloxus lacustris*. W. Watson



05. Lake Orb Mussel *Musculium lacustre*. W. Watson



06. Duck Leech *Theromyzon tessulatum*. Rosemary Winnall



07. Four-spotted Chaser *Libellula quadrimaculata*. Roger Plant



09. Water beetle, water scorpion, water beetle larva. Roger Plant.



10. Kyre Park recorders Harry Green & Mike Averill. Roger Plant.

Acknowledgements

I would like to thank Giles King-Salter for editing my article, compiling the combined species list and for checking and revising the species score.

We are extremely grateful for Sheila Harris, Estate manager, on behalf of the owner for inviting us to visit Kyre Park and for being so accommodating by offering us refreshments and toilet facilities; a treat rarely afforded to us. Thanks are also due to Roger Plant for his work in arranging this visit.

References:

Foster, G. N, Bilton, D.T., and Nelson, B.H. 2016. *Atlas of the Predaceous Water Beetles (Hydradephaga) of Britain and Ireland.*

Biological Record Centre/Centre for Ecology and Hydrology/Field Studies Council.

Huxley, T. 2003. *Provisional Atlas of British Aquatic Bugs (Hemiptera, Heteroptera)*. Biological Records Centre/Centre for Ecology and Hydrology/Joint Nature Conservation Committee.

Williams, P.J. et.al. 1996. *Lowland Pond Survey*. Pond Action, Oxford Brookes University/Institute of Terrestrial Ecology.

Images

01. *Hyphydrus ovatus*. W. Watson

02. The Reed Beetle *Plateumaris sericea*. W. Watson

03. *Plea minutissima*. W. Watson

04. Lake Limpet *Acroloxus lacustris*. W. Watson

05. Lake Orb Mussel *Musculium lacustre*. W. Watson

06. Duck Leech *Theromyzon tessulatum*. Rosemary Winnall

07. Four-spotted Chaser *Libellula quadrimaculata*. Roger Plant

08. Pupa of the Brown China-mark *Elophila nymphaeata* inside a case made of cut leaf segments. W. Watson.

09. Water beetle, water scorpion, water beetle larva. Roger Plant.

10. Kyre Park recorders Harry Green & Mike Averill. Roger Plant.