Water in Highbury Park lealfet 2015:Layout 1 30/04/2015 16:17 Page 1

Kingfisher
(*Acedo atthis*)

Discover
Water Habitats in Highbury Park

Highbury Park, on the border of Kings Heath and Moseley in Birmingham is home to pools, springs, streams and marshy areas, many of them hidden away. The *Shuttuck Stream* has formed the valley in the middle of the park, but the pools are all man-made and if left to themselves would silt up and return to woodland.

Can you find these hidden watery worlds? What is their history? What lives there? What will they look like in 100 years time? We hope this leaflet will inspire you to explore the park, its varied water habitats and some of the associated flora and fauna.

A Changing Landscape

Ponds are ephemeral. Left alone they would turn into marsh, then scrub and then wet woodland. Each of these stages supports a unique flora and fauna. This 'natural succession' can be halted by management, be it removing silt, trees and other vegetation and controlling the water flow. On older maps, for example, the small spring in the woodland by the car park fed into two ponds, described on the 1840 tithe map as the *Middle Piece with Pools*. These have now gone and woodland has taken over but there is still a wet marshy area within it.

Three of the pools in the park have been designated as Sites of Local Importance for Nature Conservation. (SLINC) The water table in Birmingham has risen as less water is now abstracted for industrial use; it is set to continue to rise so we may see more springs and marshy areas in the park.

To find out more about Highbury Park:

Highbury Park Friends
www.highburyparkfriends.org.uk
Birmingham Parks Ranger Service
www.birmingham.gov.uk/parkrangers
Highbury
www.birmingham.gov.uk/highbury

LOTTERY FUNDED

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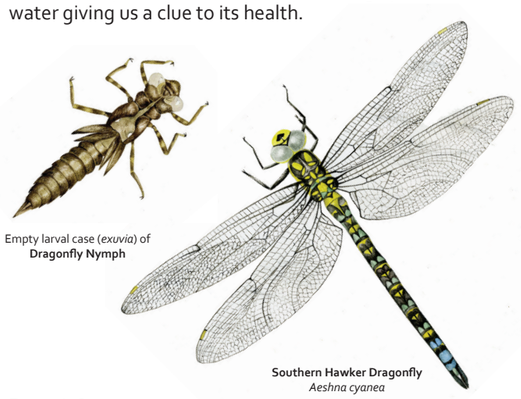
Leaflet Design and Illustrations: Catharine Clarke
Printed by Regency Press, Birmingham 2015

What is a healthy pond and stream?

The water is clear so it must be clean, right? No! If the water really is clean then you should expect to find ponds and streams bursting with wriggling and swimming life. *Whirligig Beetles* and *Pond Skaters* on the surface. *Water Beetles*, *Water Boatmen* darting about within the water. *Mayfly Larvae*, *Snails*, *Flatworms* and *Leeches* hiding in the water weed. And on the bottom, *Shrimps* and *Water Slaters* munching dead leaves, *Dragonfly Larvae* waiting to impale passing creatures and *Caddisfly Larvae* trundling about in their homemade tube homes. But if the water receives too much fertilizer, herbicide or household effluent, then only a few of these creatures are able to survive. They really are little 'early warning systems' of the water giving us a clue to its health.



Empty larval case (*exuvia*) of **Dragonfly Nymph**

Southern Hawker Dragonfly
Aeshna cyanea

Pond Surveys

August 4th 2014, with leaking waders and a net, we surveyed the Long Pool. Looking under stones and in the algae attached to the bank, we found lots of *Mayfly Larvae* and a few small fish fry. No sign of the patches of *Water Starwort* that had been there in the spring. Two families of ducklings, one *mallard*, and the other *mallard cross*. The *Canada Goose* family are not around as we splash about but a *Heron* watches us from high in the tree. A young *Moorhen* feeding on the bank, rushes back to the safety of the water with its large splayed green feet. Water creatures found included *Water Fleas*, *Pea Mussel*, *Water Shrimp*, *Water Slater*, two species of *Flatworm* and two species of *Leech*. One of these, *Theromyzon tessulatum*, specialises in sucking blood from ducks via their nostrils! The survey here indicates that there is some pollution in the pond as a clean pond would support more creatures. It may have too many nutrients coming in e.g. from overfeeding the ducks with bread.

Be involved!

All our pond surveys can be found on our website so don't forget to take a look! Or why not join us on future survey work? The more we know, the better we can monitor and care for these diverse and important water habitats.

The Hidden World - below the surface

Why not create a pond in your garden? Even a small pond will quickly attract a range of creatures. They can be observed quite easily with a white spoon and a x10 lens and possibly photographed on a macro setting before returning them to their habitat.

Freshwater Shrimp
Gammarus pulex

(Illustrated from preserved specimen)

The Freshwater Shrimp's favourite food is decaying leaves but they will happily munch dead animals so they play an important role in the recycling of nutrients. The male and female swim around together for over a week so that the eggs can be fertilized as soon as they enter the brood-pouch.

Adult caddisflies do not look at all like flies but resemble moths with long antennae. Their caterpillar-like larvae are aquatic. Most construct little tubes to live in and others spin nets out of silk to trap creatures or morsels of food. **Caddis larvae are generally not common in poor quality waters. This one was found in *Shuttuck Stream* in 2014, a sign of improvement in a stream that has been subject to previous pollution incidents.**

Caseless Caddisfly Larvae

(Illustrated from live specimen - July 2014)

Mayfly Larvae
Ephemeroptera

(Illustrated from live specimen - July 2014)

Mayflies live for only a few days as adults, spending most of the year under the water as larvae. They have three thin tails and lines of gills on the side of the abdomen. Most of their time is spent eating algae and detritus whilst avoiding predators like diving beetles and fish.

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Walking and exploring