Derwent Road Floodwash Habitat Survey

A report for The London Borough of Merton June 2000

Report Written by

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For

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LONDON CONSERVATION SERVICES

London Conservation Services (LCS) is the wholly owned trading company of the London Wildlife Trust (LWT) which is the only charity working through the whole of Greater London to help London's Wildlife. LWT is part of a nation-wide network of Wildlife Trusts and Urban Wildlife Groups which work to promote wildlife and is widely regarded as one of the foremost urban nature conservation organisations in the UK. As well as managing over 50 nature reserves in London, the Trust campaigns to save and improve greenspace, gives advice to local communities and schools and works with Local Authorities and other organisations to make London a better place, not only for wildlife, but for people too.

LCS carries out work in most areas of nature conservation and wildlife management; such as practical management for nature conservation, advice on management of wildlife, ecological surveys, environmental education and landscape design incorporating ecological improvements and safeguards. It is able to call on the wide range of expertise of the LWT staff and many other professional ecologists and free-lance professionals in the London Area and beyond.

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1.0 Introduction

An ecological survey of the Derwent Road Floodwash, Morden, was carried out by London Conservation Services Ltd., at the request of the London Borough of Merton. The survey followed standard phase 1 habitat survey methodology, as developed for Greater London by the London Ecology Unit (LEU 1994). Constituent habitats were described and mapped. A plant species list for the site was compiled and an assessment of plant species abundance made. Systematic recording of fauna was not undertaken, although notes were made of any animal species encountered during the course of the habitat survey.

The survey was carried out on the 3rd June 2000. The timing of the survey is considered adequate to accurately characterise the habitats and species present, although species with an early or late development phenology may have been underrecorded.

2.0 Habitat Descriptions

The Derwent Road Floodwash is a roughly triangular piece of land situated between Wandsworth Cemetery and the Pyl Brook in Morden Park, Morden. The site is surrounded by c. 3 metre high bunds and is designed to receive floodwaters from the Pyl Brook during peak flows. The following habitat types can be recognised within the site:

- ?? Native broadleaved woodland
- ?? Scattered trees
- ?? Scrub
- ?? Tall herbs
- ?? Semi-improved neutral grassland
- ?? Standing water (ponds)
- ?? Wet marginal vegetation (in ponds)
- ?? Running water

These habitats are described in turn. A habitat plan of the site is shown in figure 1 and a list of plant species recorded is presented in Appendix 1.

2.1 Native Broadleaved Woodland

A narrow band of secondary broadleaved woodland lines the western bank of the Pyl Brook in the south-east of the site and continues along the southern margin. Ash *Fraxinus excelsior* is prominent in the canopy. Occasional crack willow *Salix fragilis*, white willow *S. alba*, and saplings of English oak *Quercus robur* are also present, together with non-native trees such as sycamore *Acer pseudoplatanus*, horse chestnut *Aesculus hippocastanum* and hybrid black poplar *Populus x canadensis*.

Hawthorn *Crataegus monogyna*, elder *Sambucus nigra* and snowberry *Symphoricarpos albus* form a scattered understorey. There is a short section of beech *Fagus sylvatica* hedging along the southern boundary. The field layer is variously dominated by cow parsley *Anthriscus sylvestris*, stinging nettle *Urtica dioica*, ivy *Hedera helix* and bramble *Rubus fruticosus agg*. Hedge woundwort *Stachys sylvatica*, garlic mustard *Alliaria petiolata* and wood avens *Geum urbanum* are occasional.

Suckering thickets of English elm *Ulmus procera* occur along the western boundary of the site. Dutch elm disease re-infects the larger suckers once the bark is of sufficient thickness to be colonised by Elm Bark Beetles *Scolytus spp.* (the vectors of the disease), with the result that the trees never get much beyond the sapling stage. There are a number of dead and dying elm suckers and decaying stumps occur in places. Elder is frequent and the field layer consists of ivy, bramble, stinging nettle and cow parsley.

2.2 Scattered Trees

Scattered trees occur in places around the margins of the site. Most are English oak, with some crack willow and grey poplar *Populus x canescens* along the banks of the Pvl Brook.

2.3 Scrub

A small patch of blackthorn *Prunus spinosa* and hawthorn scrub occurs at the foot of the perimeter bund in the north-eastern part of the site.

2.4 Tall Herbs

Tall herbaceous vegetation covers much of the perimeter bunds, forming a mosaic with bramble under-scrub. Stinging nettle and cow parsley are generally the dominant herbs, but other species include black horehound *Ballota nigra*, creeping thistle *Cirsium arvense*, hogweed *Heracleum sphondylium*, and horseradish *Armoracia rusticana*. Coarse grasses such as barren brome *Anisantha sterilis* and wall barley *Hordeum murinum* are also frequent, especially in disturbed areas and along path margins.

2.5 Semi-improved Neutral Grassland

Neutral grassland covers the majority of the site, forming an extensive meadow area within the floodwash basin. The grassland is generally quite damp but becomes progressively wetter towards the south-west, where a distinctive wet grassland community occurs.

The dominant grasses are the meadow grasses *Poa pratensis* and *P. trivialis*, foxtail *Alopecurus pratensis*, and to a lesser extent false-oat grass *Arrhenatherum elatius*, Yorkshire fog *Holcus lanatus*, creeping bent *Agrostis stolonifera*, tall fescue *Festuca arundinacea* and red fescue *F. rubra*. Hard rush *Juncus inflexus*, hairy sedge *Carex hirta* and grey sedge *C. divulsa* are quite common, especially towards the south. Meadow buttercup *Ranunculus acris* is the most prominent wildflower and covers much of the meadow (photo 1). Other common herbs include creeping buttercup R. repens, cut-leaved cranesbill *Geranium dissectum*, ribwort plantain *Plantago lanceolata*, creeping cinquefoil *Potentilla reptans*, tufted vetch *Vicia cracca*, common vetch *V. sativa*, bird's-foot-trefoil *Lotus corniculatus* and lesser stitchwort *Stellaria*

graminea. Grass vetchling *Lathyrus nissolia*, a rather uncommon plant in Greater London, is frequent in the southern half of the meadow.

Grassland in the south-western corner of the meadow was shallowly flooded at the time of the survey. The wetter conditions here are reflected in the vegetation composition. False fox sedge *Carex otrubae*, jointed rush *Juncus articulatus* and marsh foxtail *Alopecurus geniculatus* are prominent in the sward. Rarer species include cuckooflower *Cardamine pratensis* and creeping-jenny *Lysimachia nummularia*.

There are small areas of dry neutral grassland on the perimeter bunds in the south-west corner of the site. Red fescue is the dominant grass here whilst herbs include perforate St.John's-wort Hypericum perforatum, smooth tare Vicia tetrasperma, meadow vetchling Lathyrus pratensis, grass vetchling, lesser yellow trefoil Trifolium dubium, bird's-foot-trefoil and lesser stitchwort.

2.6 Standing Water & Wet Marginal Vegetation

There are five ponds within the site, situated around the periphery of the meadow area (labelled A-E on the habitat plan, figure 1). The ponds were excavated in 1999. No stocking with plants was undertaken, although visitors to the site may have introduced some species. The ponds have developed rapidly and now support open standing water and wet marginal vegetation communities, as follows:

Pond A

A gently shelving more-or-less circular waterbody, with plenty of bare mud on the margins. Relatively sparsely vegetated with marsh foxtail and flote grass *Glyceria fluitans*. Blanket weed (filamentous algae) was abundant at the time of survey.

Pond B

A shallow pond with abundant flote grass and emergent stands of reedmace *Typha latifolia* and yellow flag *Iris pseudacorus*. Duckweed *Lemna minor* carpets the water surface. Fringed water-lily *Nymphoides peltata*, water speedwell *Veronica anagallisaquatica* and jointed rush also occur.

Pond C

Tussocks of hard rush and soft rush *Juncus effusus* occur around the margins, together with stands of reedmace and yellow flag. Other species include jointed rush, water speedwell, duckweed, fringed water-lily, watermint *Mentha aquatica*, amphibious bistort *Persicaria amphibia*, water plantain *Alisma plantago-aquatica* and water figwort *Scrophularia auriculata*. Connected to pond D by a narrow channel.

Pond D

A more open pond with fringing reedmace, branched bur-reed *Sparganium erectum*, water plantain, water speedwell, jointed rush and great willowherb *Epilobium hirsutum*. Fringed water lily and duckweed also occur. A narrow channel connects this pond with pond E.

Pond E

Canadian pondweed Elodea canadensis is present as a submerged aquatic, with fringed water-lily and duckweed on the surface. Reedmace, jointed rush, watermint and celery-leaved buttercup *Ranunculus sceleratus* occur on the margins.

2.7 Running Water

The Pyl Brook runs along the eastern margins of the site. The channel is stone-lined for much of its length, with little opportunity for the establishment of marginal vegetation. The brook has a stony bed and water quality appears to be good, although no aquatic plants were observed apart from filamentous algae.

2.3 Fauna

The scrub and woodland habitats provide a potential breeding habitat for a range of common birds. Amongst the species noted during the course of the habitat survey which may possibly breed on the site are wood pigeon *Columba palumbus*, chiffchaff *Phylloscopus collybita*, chaffinch *Fringilla coelebs*, jay *Garrulus glandarius* and Carrion crow *Corvus corone*. A pair of mallard *Anas platyrhynchos* were seen on pond A.

Juvenile common frogs *Rana temporaria* were abundant in the vegetation around the ponds and tadpoles of this species and possibly common toad *Bufo bufo* were noted in the ponds.

Invertebrates noted during the habitat survey included common blue *Polyommatus icarus* and small copper *Lycaena phlaeas* butterflies and the yellow meadow ant *Lasius flavus*, all within the grassland, and broad-bodied chaser dragonfly *Libellula depressa* and several species of damselfly around the ponds.

3.0 Evaluation

Semi-improved neutral grassland is a relatively uncommon habitat in Greater London, especially damp and wet grassland communities such as those found at Derwent Road Floodwash. Such habitats have undergone serious declines at the national level in recent decades and figure prominently in the UK Biodiversity Action Plan.

The ponds are another important habitat feature. Although they were only recently excavated they already support a reasonably diverse vegetation and have been colonised by amphibians and aquatic invertebrates. The Pyl Brook is also an important habitat and one that has great potential for future enhancement through a more sympathetic approach to bank engineering.

Tall herb, scrub, scattered trees and secondary woodland habitats are of lower nature conservation interest but add to the overall diversity and value of the site.

The following plant species that are uncommon in Greater London occur within the site:

Species	% of Greater London tetrads from which recorded*
Water speedwell Veronica anagallis-aquatica	1.5
Fringed water-lily Nymphoides peltata	2.25
Grass vetchling Lathyrus nissolia	9

^{*} based on the Flora of the London Area (Burton 1983)

References

Burton, R. M. 1983 Flora of the London Area, London Natural History Society, London.

London Ecology Unit 1994 Habitat Survey for Greater London, London Ecology Unit, London.

Appendix 1: Plant Species Recorded from Derwent Road Floodwash

CLASS/ORDER	FAMILY	SPECIES		REMARKS
MAGNOLIOPSIDA	Nymphaceae	Nymphoides peltata	F	Ponds
MAGNOLIIDAE	Ranunculaceae	Ranunculus repens	F	Grassland
(Dicotyledons)	randiculaceae	Ranunculus acris	Ä	Grassland
(Dicotyledons)		Ranunculus sceleratus	R	Ponds
	Ulmaceae		C	Broadleaved
	Ulliaceae	Ulmus procera	C	
	Linting	Llutina dinina	۸	woodland
	Urticaceae	Urtica dioica	Α	Woodland/scrub/tall
	F	Farmer and ration	Ъ	herb
	Fagaceae	Fagus sylvatica	R	Beech hedge
		Quercus robur	F	Woodland/scattered
			5	trees
		Quercus cerris	R	Seedlings
	Caryophyllaceae	Stellaria graminea	F	Grassland
	Polygonaceae	Polygonum aviculare	O	Paths
		Persicaria amphibia	O	Ponds
		Rumex crispus	0	Grassland
		Rumex obtusifolius	0	Grassland/tall herb
	Clusiaceae	Hypericum perforatum	Ο	Grassland/tall herb
	Salicaceae	Populus x canescens	R	1 tree on river bank
		Populus x canadensis	Ο	Broadleaved
				woodland
		Salix fragilis	F	Broadleaved
				woodland/scattered
				trees
		Salix alba	0	Broadleaved
				woodland
	Brassicaceae	Alliaria petiolata	0	Woodland/scrub
		Cardamine poratensis	R	Grassland
		Armoracia rusticana	0	Tall herb
	Primulaceae	Lysimachia	R	Grassland
		nummularia		
	Rosaceae	Rubus fruticosus agg.	Α	Woodland/scrub
		Potentilla reptans	F	Grassland
		Geum urbanum	Ö	Woodland
		Crataegus monogyna	F	Woodland/scrub
	Fabaceae	Lotus corniculatus	F	Grassland
	1 abaddad	Vicia cracca	O	Grassland
		Vicia sativa	F	Grassland/tall herb
		vicia saliva	'	Orassiana/taii neib
		Vicia tetrasperma	0	Grassland
		Lathyrus pratensis	Ö	Grassland
		Lathyrus nissolia	F	Grassland
		Trifolium repens	Ö	Grassland
		Trifolium dubium	Ö	Grassland
		Trifolium pratense	F	Grassland
		Trifolium hybridum	Ö	Grassland
	Onagraceae	Epilobium hirsutum	Ö	Ponds
	Celastraceaeae	Euonymus japonicus	R	Woodland
			0	Woodland
	Hippocastanacea	Aesculus hippocastanum	U	vvooulanu
	e Acoracoao		F	Woodland
	Aceraceae	Acer pseudoplatanus		
	Geraniaceae	Geranium dissectum	F	Grassland/tall herb
	Araliaceae	Hedera helix	C	Woodland
	Apiaceae	Anthriscus sylvestris	Α	Woodland/scrub/tall
		11	-	herb
		Heracleum	F	Woodland/scrub/tall
		sphondylium		herb/grassland

CLASS/ORDER	FAMILY	SPECIES	ABUNDANCE	REMARKS
	Solanaceae	Solanum dulcamara	0	Woodland/tall herb
	Convolvulaceae	Convolvulus arvensis	Ο	Grassland/tall herb
		Calystegia silvatica	F	Woodland/scrub
	Lamiaceae	Stachys sylvatica	Ο	Woodland/scrub
		Ballota nigra	F	Woodland/tall herb
		Lamium album	0	Woodland/scrub/tall
				herb
		Glechoma hederacea	Ο	Woodland/scrub
		Mentha aquatica	Ο	Ponds
	Plantaginaceae	Plantago lanceolata	F	Grassland
		Plantago major	0	Grassland/paths
	Oleaceae	Fraxinus excelsior	С	Woodland
	Scrophulariaceae	Scrophularia auriculata	0	Ponds
		Veronica anagallis-	F	Ponds
		aquatica		
	Rubiaceae	Galium aparine	F	Woodland/scrub/tall
				herb
	Caprifoliaceae	Sambucus nigra	F	Woodland/scrub
		Symphoricarpos albus	O	Woodland
	Asteraceae	Cirsium arvense	Ō	Tall herb/grassland
		Taraxacum officinale	F	Grassland/tall herb
		agg.	_	
		Senecio jacobea	F	Grassland
		Senecio erucifolius	R	Grassland
LILLIDAE	Alismataceae	Alisma plantago-	Ο	Ponds
(Monocotyledons)		aquatica	_	
	Hydrocharitaceae	Elodea canadensis	0	Ponds
	Lemnaceae	Lemna minor	C	Ponds
	Juncaceae	Juncus articulatus	C	Grassland/ponds
		Juncus effusus	Ō	Grassland/ponds
		Juncus inflexus	Ę	Grassland/ponds
	Cyperaceae	Carex divulsa	F	Grassland
		Carex hirta	F	Grassland
	_	Carex otrubae	F	Grassland
	Poaceae	Festuca rubra	С	Grassland
		Festuca pratensis	Ō	Grassland
		Festuca arundinacea	F	Grassland
		Lolium perenne	F	Grassland
		Poa annua	0	Paths
		Poa trivialis	С	Woodland/tall
		Dee mustamais	0	herb/grassland
		Poa pratensis	C	Grassland
		Dactylis glomerata	F	Grassland
		Glyceria fluitans	C C	Ponds Grassland
		Arrhenatherum elatius Deschampsia	0	Grassland
		•	O	Glassialiu
		cespitosa Holcus lanatus	F	Grassland
		Agrostis stolonifera	F F	Grassland
		Alopecurus pratensis	F A	Grassland
		Alopecurus praterisis Alopecurus	F	Grassland/ponds
		geniculatus	i_	Orassianu/punus
		geniculatus Anisantha sterilis	F	Woodland/scrub/tall
		הוווטמוונוומ אנכווווט	Г	herb
		Hordeum murinum	F	Woodland/scrub/ tall
				herb/grassland
	Sparganiaceae	Sparganium erectum	R	Ponds
			C	Ponds
	Typhaceae	Typha latifolia	U	r ulius

CLASS/ORDER	FAMILY	SPECIES	ABUNDANCE	REMARKS
	Iridaceae	Iris pseudacorus	0	Ponds

Nomenclature follows Stace, C. (1997) New Flora of the British Isles (2nd ed.).

Abundance estimated *within the site* using the ACFOR scale as follows: A = Abundant; C = Common; F = Frequent; O = Occasional; R = Rare; LA, LF etc = Locally Abundant, Frequent etc (i.e. within a discrete area of the site).

