HA8: Marshland

Definition

The term 'marshland' has been chosen to cover the following wet terrestrial habitats: bog, swamp, fen, wet marginal vegetation, wet marshy grassland and ditches. These are further defined below:

Bog: Dominated by *Sphagnum spp.* mosses (greater than 50% cover) with the water table at, or just below the surface.

Wet marginal vegetation: Emergent vegetation with a permanently high water table in strips less than five metres wide on the margins of water bodies. Contains species such as yellow iris *Iris psuedacorus,* fool's watercress *Apium nodiflorum,* and yellow-cress *Rorippa* sp. May be dominated by common reed *Phragmites australis,* reedmace *Typha sp.* and reed sweet-grass *Glyceria maxima*.

Fen: Stands of herbaceous vegetation where the water table is above the ground for much of the year, often with less than 75% dominance of reed*,* reedmace*,* reed sweet-grass*,* or reed canary-grass *Phalaris arundinacea*. Distinguished by width from wet marginal vegetation. Excludes reedbeds.

Wet marshy grassland: Grassland where the water table is at or above the surface for much of the year. Supports species such as marsh foxtail *Alopecorus genuculatus*, rushes *Juncus* spp. and meadowsweet *Filipendula ulmaria*

Ditches: Wet ditches.

The following habitats also occur in association with marshland but are covered by other audits: fen carr (Woodland HA1); floodplain grassland (Grazing Marsh and Floodplain Grassland HA7); and reedswamp (Reedbed HA9).

London's Marshland Resource

Situated at the inland extremity of an estuary and within the catchment of several tributaries of the Thames, the surroundings of London must have supported large areas of wetland habitat including extensive areas of marshland, prior to its development as a major centre of population.

Many of these areas may have been brought into agricultural production in the early periods of London's history. However, it is likely that many valuable semi-natural habitats would have remained in the form of flood meadows, reedbeds, ditches and ponds, even though this would have led to a loss of prime habitat. Even these features were gradually eliminated in the central areas of London, as springs, streams and rivers were culverted to provide additional building land and a measure of flood control.

Marshland habitat within London is now relatively rare and fragmented. Marshland areas are more frequent in outer London boroughs and are effectively absent from the inner London boroughs of City of London, City of Westminster, Hammersmith & Fulham, Islington, Lambeth, Southwark, Wandsworth and Kensington & Chelsea. Some small areas of wet marginal vegetation, however, are associated with waterbodies in some of these boroughs.

There are approximately 273 ha of marshland in Greater London. The approximate figures for each Borough, with a breakdown by the habitats defined above, are shown in Table 1 below. The extent of marshland in London is represented by the Map. The diverse nature of the wetland habitats covered within this category, coupled with the number of vegetation classifications which could be used, has led to difficulties in assessing the full extent of these habitats regionally and nationally. This has led to further difficulties in placing the local resource in a regional and national context.

Table 1: Area of Marshland within Greater London (To nearest 0.5 ha)

Borough	Bog	Fen & Wet Ditches	Wet Marshy G'land	Wet Ditches	Total	Percentage of London's Total Marshland Resource (%)
City of London	0	0	0	0	0	-
City of Westminster	0	0	0	0	0	-
Barking	0	8	3.5	6	17.5	6
Barnet	0	1	3	5	9	3
Bexley	0	0	2.5	9	11.5	4
Brent	0	0	5	0	5	2
Bromley	0.5	0	7.5	6	14	5
Camden	0.5	0	1	0	1.5	1
Croydon	0.5	2	0.5	1	4	2
Ealing	0	1	1.5	2	4.5	2
Enfield	0	0	5.5	14	19.5	7
Greenwich	0	0	1.5	1.5	3	1
Hackney	0	0	2.5	0	2.5	1
Hammersmith & Fulham	0	0	0	0	0	-
Haringey	0	0	2.5	0	2.5	1
Harrow	0	0	2	3.5	5.5	2
Havering	0	11	51	6	68	25
Hillingdon	0	10	14	13	37	14
Hounslow	0	4	4	1.5	9.5	4
Islington	0	0	0	0	0	-
Kensington & Chelsea	0	0	0	0	0	-
Kingston upon Thames	0	0.5	0.5	1.5	2.5	1
Lambeth	0	0	0	0	0	-
Lewisham	0	0	1.5	0	1.5	1
Merton	0.5	1	0.5	0	2	1
Newham	0	0	3	3	6	2
Redbridge	0	2	2	3	7	3
Richmond upon Thames	0	2	4.5	9	15.5	6
Southwark	0	0	1	0	1	-
Sutton	0	0	1	3	4	1
Tower Hamlets	0	0	0.5	0.5	1	-
Waltham Forest	0	12	3	1.5	16.5	6
Wandsworth	0	0	1	0	1	-
London Total	**2**	**54.5**	**126**	**90**	**272.5**	

No figures are available for the extent of marshland in the UK. There are estimated to be approximately 1,825 ha of 'combined wetland habitat' in south-east England. This figure includes reedbeds (which exist as a separate audit category, HA9) but does not include bogs and is therefore not directly comparable.

Nature Conservation Importance

Marshland habitat has been highlighted as a priority for nature conservation in the UK due to dramatic declines in area and distribution throughout Europe during the last century. It is a rare resource in London. Two boroughs, Havering and Hillingdon, account for over one third of London's marshland, with a scattering of smaller areas throughout other outer London boroughs. The remaining habitat is of high nature conservation importance in both a local and regional context.

London's marshlands support a rich diversity of plant and animal communities. They are particularly important for breeding birds such as sedge warbler, reed warbler, reed bunting and water rail, and wintering species such as teal and snipe. Plants species associated with marshlands include marsh dock *Rumex palustris*, marsh marigold *Caltha palustris*, yellow iris *Iris pseudacorus* and common spike rush *Eleocharis palustris*, as well as rarities such as cotton grass *Eriophorum angustifolium*.

Marshlands support a particularly diverse range of invertebrates, the most noticeable of which are the dragonflies including species such as ruddy darter, emperor and southern hawker. Other notable species associated with marshland habitat in London include water vole, grass snake, common frog and serotine bat.

Some marshland sites of nature conservation value in Greater London

Ingrebourne Marshes, LB Havering

Denham Lock wood, LB Hillingdon

Farm Bog, LB Merton

Walthamstow Marsh, LB Waltham Forest

The Chase Nature reserve, LB Barking & Dagenham

Threats and opportunities

Threats

The main present day threats to London's marshland resource are development, water abstraction, pollution and lack of, or inappropriate, management. The apparent higher incidence of hot dry summers will also have a negative impact if this proves to be a long-term climatic change resulting from global warming. Development adjacent to marshland sites can also be a threat if the existing hydrology is adversely affected.

Many marshland sites in London are small and fragmented, which may limit the possibility of species movement between similar areas of habitat and reduce the ability of species to colonise new areas.

The threats described above will vary relative to each habitat. Fen and bogs will be particularly threatened by drying out and succession to woodland, whereas wet marginal vegetation can be seriously affected by water-borne pollution, development and unsympathetic maintenance, for example vegetation clearance at inappropriate times of the year. Wet marshy grassland can be very easily damaged or destroyed by relatively minor drainage schemes, particularly those associated with 'improvements' to agricultural land, golf courses, parks and other amenity land.

Opportunities

The Environment Agency has a considerable array of powers and advisory services which can be utilised to maintain or enhance marshland habitats. Local Environment Agency Plans (LEAPs) which seek to provide an integrated approach to environmental management within river catchments can help to identify potential areas for wetland rehabilitation and restoration. For example, existing degraded marshland habitats can be enhanced or new marshland habitats created when designing new flood-defence projects or refurbishing existing ones by incorporating schemes which aim to reduce the incidence of flooding by reducing direct run-off through containment of floodwaters in balancing ponds and flood-storage lagoons.

Existing high quality marshland habitats can be conserved by the preparation of Water Level Management Plans which identify the water budget for a particular site and how this can be effectively managed with respect to conflicting demands.

Marshlands can also be restored or rehabilitated as part of the after use of mineral workings. At present many existing gravel pits are restored as deep-water pits or returned to agricultural use.

At many smaller sites, the biggest threat to marshlands – drying out and succession – can be tackled relatively inexpensively by control of water levels. Often, this only necessitates the installation of simple dams or sluices at the main drainage points. Furthermore, small-scale marshland habitats can be created as part of development proposals, by designing surface-water drainage systems that have marshland habitat incorporated into the design.

Data Sources

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Wicks, D., & Cloughly, P. (1998). *The Biodiversity of Southeast England: An Audit And Assessment.* Hampshire and Isle of Wight Wildlife Trust.

Yarham, I., Barnes, R. & Britton, B. (1993). *Nature Conservation in Sutton.* Ecology Handbook Number 22. London Ecology Unit.

Rationale and limitations of approach

The data were collected from the 1984/85 London Wildlife Habitat Survey. This survey represents the most fully comprehensive survey to date. The marshland audit is collated from data on the following habitat categories: bog, swamp, fen, wet marginal vegetation and wet/marshy grassland (those grassland areas identified as wet on the Wildlife Habitat Survey maps).

The audit should be used as a guide and not as a definitive statement of Greater London's marshland resource. Each borough could refine the audit with a comprehensive re-survey.