

CHICHESTER HARBOUR CONSERVANCY

Langstone Mill Pond Ecology Report

December 2022



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Langstone Mill Pond (incorporating Woodland and Paddock)

Walkover Survey and Indicative Ecological Summary

Context and Background

In the winter of 2021-22, part of the sea wall that borders Langstone Mill Pond suffered some damage. This report was produced to help inform the discussions around the future of the sea wall, and provide a snapshot of the ecological value of the mill pond and adjacent woodland and grassland, as of December 2022. It is not intended to provide any assessment of the state of the sea wall.

Site Description

Langstone Mill Pond is a pond of around 0.9ha on the north-west edge of Chichester Harbour. It is fed by the Lymbourne stream. A wall separates the pond and the outfalls of the stream and pond from the tidal ingress of the harbour, along which is the route of the public footpath. The pond's southern and eastern edge is largely fringed by common reed *Phragmites* and in places this forms a dense barrier between the footpath and the open water of the pond.

To the west and north of the pond is an area of woodland leading to Wade Court Park, alongside which the Lymbourne stream flows. To north and east is a paddock of approximately 1.5ha. The paddock is grazed by horses, and in wet weather the paddock floods quite extensively where the pond/stream overflows into the south-west corner, leaving a substantial amount of lying water, regularly covering up to around 0.3ha.

Ducks and other waterbirds are often fed by members of the public that walk along the adjacent footpath, and is clearly a popular pastime for local people. This activity is likely to lead to elevated nutrient levels in the pond.

Hydrology and Salinity

The salinity of the pond was not tested. The hydrology is dominated by the inflow from the freshwater stream but on very high spring tides and storm surges, the pond receives salt water from the harbour (flowing over the path and directly into the pond). This happens up to 4 times per winter (anecdotal), and will undoubtedly leave the pond at least temporarily brackish. This is probably the reason why some of the Alder and Willow trees on the south-eastern edge of the pond have died.

Site Designations

The pond and woodland is designated Langstone Mill Pond Site of Nature Conservation Importance (SINC), listed as:

- 4A Semi-natural coastal and estuarine habitats.
- 5B Fens, flushes, seepages, springs and inundation grasslands of floodplains that support a flora and fauna of less-improved wet conditions (seasonal or permanent).

Some of the woodland to the north is a separate SINC, Wade Court Park.

Three components of the site are listed under the Natural England priority habitat inventory: the woodland as 'deciduous woodland', part of the reedbed area as 'reedbed', and the entire paddock as 'floodplain and coastal grazing marsh'.

The site lies immediately adjacent to Chichester Harbour Site of Special Scientific Interest (SSSI), Chichester and Langstone Harbour Special Protection Area (SPA) /Ramsar, Solent Maritime Special Area for Conservation (SAC).




Fig 1. Mill pond showing reed fringe and woodland to the north and west.

Breeding Birds

The most notable feature of the site is the Heronry in the woodland to the north and west of the pond. The site is the largest breeding colony of Little Egrets in Hampshire, the only one of three regular Heronries in Chichester/Langstone Harbour, and in 2019 was the first site in Hampshire for breeding Cattle Egrets.

	2017	2018	2019	2020	2021
Little Egret	44	23	35	15	15
Grey Heron	10	12	5	4	11
Cattle Egret			4	8	12

Table 1. Breeding Grey Herons, Little Egrets, and Cattle Egrets 2017-2021 (apparently occupied nests)

Additionally to the breeding Herons and Egrets, the pond and fringing reedbed supports an assemblage of breeding birds of local importance, including Reed Warblers (3-4 pairs), Cetti's Warbler (1 pair), Reed Bunting (occasional), Mallard (2-pairs), Moorhen, Coot, Mute Swan (1 pair), Tufted Duck (1-3 pairs). The woodland to the north of the pond has not been surveyed regularly but is likely to support common breeding birds such as Blue Tit, Great Tit, Robin, Wren, Blackcap, Chiffchaff, Great Spotted Woodpecker, Blackbird and Song Thrush.

Wintering and non-breeding birds

The pond is and the adjacent paddock is used by a variety of species during the autumn and winter, and the value of the site for birds is greatly enhanced by the pond and flooded paddock area combined.

The table below illustrates the peak numbers of birds recorded on the Warblington Wetland Bird Survey (WeBS) over the last 5 years. Not all of these birds will be using the pond and adjacent paddock, but it is an indication of the importance of the site for these species. A large proportion of the Little Egrets, Cattle Egrets, Moorhens and Mallard will be reliant on the either the pond itself or the complex of woodland, pond and paddock together.

	2017-18	2018-19	2019-20	2020-21	2021-22
Little Egret	48	45	50	62	25
Cattle Egret	1	5	6	2	9
Grey Heron	4	10	8	9	5
Mallard	52	51	45	88	83
Gadwall				2	4
Teal	45	60	123	152	80
Tufted Duck	3	3	8	4	12
Moorhen	15	9	29	16	10
Coot	17	37	33	45	34

Warblington sector WeBS Peaks 2017-18 to 2021-22, selected species.

The pond itself is regularly used by Mute Swan, Mallard, Teal, Gadwall, Tufted Duck, Water Rail, Moorhen, Coot and Black-headed Gulls, and Kingfishers are regularly seen on the stream.

The flooded areas on the paddock are also excellent habitat for birds, particularly in the winter; Black-tailed Godwit and Teal regularly use the site, occasionally in significant numbers.

The woodland to the north of the pond is also an important site as a night-time roost for Little Egrets from later summer through to the winter, and these are not usually picked up by WeBS. Typical autumn counts carried out at dusk are between 100 and 150 birds, making the site one of the most important in Chichester/Langstone Harbours.

During the site visit on 19.12.22, the following species were noted: Chiffchaff, Cetti's Warbler, Great Spotted Woodpecker, Goldcrest, Blue Tit, Great Tit, Long-tailed Tit, Kingfisher, Song Thrush, Stock Dove, Dunnock, Wren, Robin, Wood Pigeon, Mallard, Teal, Little Egret, Grey Heron, Moorhen, Coot, Tufted Duck and Black-headed Gull.



Fig 2. Stream and woodland, just north of the pond.

Woodland

The pond is fringed with semi-natural woodland, and appears largely unmanaged, dominated by Alder, Oak, Poplar spp, Sycamore, Willow and Birch with an understory of Blackthorn, Elm and Hazel. Throughout, there is a considerably amount of both standing and fallen dead wood. Scot's Pine is occasional, and there are a number of Bay Trees *Laurus nobilis* in the more northerly parts of the wood.

The ground flora is heavily dominated by Ivy *Hedera helix* suggesting high levels of nutrients, and the more open areas are dominated by Bramble *Rubus fruticosus* and Nettle *Urtica dioica*.



Paddock

The paddock was not walked over, just viewed from the path. It is tightly grazed by horses, and coupled with shallow seasonal flooding provides good habitat for wetland birds, and should be considered functionally linked to the Chichester and Langstone Harbour SPA, as Teal, Black-tailed Godwits and Oystercatchers regularly feed there.

The flora at the southern edge of the field is influenced by the tidal flooding, demonstrated by the presence of Sea Purslane *Sesuvium portulacastrum* growing the edge of the field.

Other taxa

The site was visited in the winter, and therefore was it unsuitable season for surveying for invertebrates, reptiles, fish and flowering plants.

No signs of Water Voles were noted, although there is some suitable habitat present, much of it inaccessible on the site visit. Due to the mix of woodland (including large volumes of standing dead wood, mature trees and ivy cover), open water, wet grassland (with grazing animals) and in close proximity to the shoreline, it is likely that the site is important for a number of bat species.



Fig 3. Paddock, showing partial flooding in Nov 2022.

Summary

As a complex of wet woodland, reedbed, open water and tightly grazed wet grassland the whole area is much greater than the sum of its parts and forms an important area for nature on the edge of the urban areas of Langstone, Warblington and Havant.

The most notable feature is the colony of nesting Grey Herons, Little Egrets and Cattle Egrets which is locally highly significant, and which depend on the wet woodland remaining intact and undisturbed.

This is an indicative report, which is only reflective as of December 2022. As a continuation of this work, the Conservancy would welcome a more comprehensive ecological assessment of the area that considers the impact future coastal change.

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Bibliography;

Hampshire Bird Reports 2015-2021, (Hampshire Ornithological Soc).

The Birds of Warblington and Emsworth 2015-2020, Peter Milinets-Raby (online reports).



Appendix 1
Site Map

Appendix 2

Reedbed area



Appendix 3

**Approximate area of nesting
Grey Herons and Egrets**



Appendix 4

Approximate extent of seasonal flooding on paddock



Appendix 5

Route of Public Footpath





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