## Information sheet

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## WYBUNBURY MOSS National Nature Reserve

(2 miles south of Crewe. 26 acres. Freehold.)

Some 20,000 years ago, during the last Ice Age, the extensive North-West Midland Plain was covered by an ice sheet of great thickness. This sheet was made up of ice coming from the north and north-west and also from the west. The ice carried with it a huge quantity of debris which was deposited over the Triassic rocks of the plain as the ice gradually melted. These surface deposits (termed 'drift') consist largely of wide, thick expanses of boulder clay with glacial sands and gravel locally.

Scattered over the plain are a large number of hollows in the drift. Most of these are merely gaps between hillocks and ridges of drift, but others are caused by subsidence due to solution of pockets of salt in the underlying rocks, whilst some are probably 'kettle-holes'. The latter are steep-sided depressions left in the glacial deposits by the melting of large blocks of ice embedded in the ground. Whatever their origin, these hollows have given rise to a variety of lakes and bogs, locally called meres and mosses respectively, which form an interesting and distinctive feature of the North-West Midland Plain

Wybunbury Moss is one of these bogs and is of very special interest due to its unusual structure. Essentially it consists of a raft of peat (not more than some 3 metres thick in places) floating on up to 15 metres of water. The basin in which the water is situated may have been formed by subsidence or glacial action. This type of bog is known as a Schwingmoor and Wybunbury Moss and a similar but larger bog in Staffordshire (Chartley Moss), are the best examples in Great Britain.

The plant communities can be divided into four units.

- 1. Mixed deciduous woodland covers the west end and much of the eastern half of the Moss. This woodland is dominated by Birch (Betula pubescens), Alder (Alnus glutinosa), Oaks (Quercus robur and Q. petraea) and Sallows (Salix spp) and grows on solid peat.
- 2. Reedswamp occurs on the unwooded margins of the reserve and extends well into the centre of the basin from the north. Its distribution corresponds closely with the old drainage systems and the plant species of this community-principally Cladium mariscus, Typha latifolia, Phragmites communis, and Juncus effusus-are supported by the supply of base rich water brought onto the acidic bog surface by the old drainage ditches.
- 3. Pine woodland with Birch grows immediately inside the marginal ring of reedswamp and mixed woodland. The ground flora is one of acid soil conditions and includes Molinia caerulea, Eriophorum vaginatum, Hypnum cupressiforme and Pleurozium schreberi with Empetrum nigrum occurring in the drier parts of the woodland. The water table is gradually rising, bringing about a regression in the Empetrum colonies and encouraging invasion of the woodland by Sphagnum recurvum.
- 4. The central part of the Moss is characterised by a continuous, level carpet of Sphagnum recurvum. Other Sphagnum species occur relatively sparsely, with S. papillosum and S. rubellum forming hummocks and S. cuspidatum hollows in the level S. recurrum carpet. Vaccinium oxycoccus, Eriophorum vaginatum and E. angustifolium are plentiful in the community and other plants of damp, acid areas, such as Erica tetralix, Calluna vulgaris and Drosera rotundifolia, are fairly common. The Sphagnum lawn is dotted with young pines which die as their own weight pushes their roots down below the water table.

Associated with these plant communities are a number of uncommon or rare insects, and in particular some of the moths, flies and dragonflies found here are uncommon in the north-west Midlands. The small spider Carorita limnea was found here in 1963 and this was the first record of its occurrence in Britain.

Access. The public are not allowed to visit this Reserve because the vegetation of the bog is easily damaged and the area is dangerous. However, permits may be issued to individuals who wish to carry out special studies or research approved by the Regional Officer.

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