

Survey of Manea Pit: July 22, 2009

[note: this document was produced by the Bedfordshire, Cambridgeshire, Northamptonshire and Peterborough Wildlife #Trust. Survey organised by Christa Perry, who has now(Feb. 2010) left the organisation.]

This site consisted of an old flooded clay-pit, which was about 2.3 hectares in area, along with associated woodland, scrub and grassland as shown on the survey map. The whole site was approximately 3.5 hectares in area and is used for fishing and recreation, there being a car-park and a circular footpath around the site.

The lake had alternating strips of deep water and shallows in a north-east to south-west direction and these produced strips of different vegetation, as easily seen in aerial photos of the site. Mostly this was Reed *Phragmites australis* swamp in the shallows with locally abundant Water lily in the deeper water. In parts though, where the water must have been deeper overall, it was lilies in the shallows, along with scraps of Bulrush *Schoenoplectus lacustris* swamp, with no visible vegetation in the deeps. Mare's-tail *Hippuris vulgaris* was very locally frequent near the fishing platforms on the south-east edge. The approximate distribution of swamp vegetation is shown on the accompanying map, along with the areas of woodland and scrub. Some of the *Phragmites* was dead and Ruth Hawksey has information about some use of weed killers on the site.

Reedmace was often mixed in with the *Phragmites*, largely in the less shaded parts. In the north-east this was mainly *Typha latifolia*, but toward the south-east corner this was partially replaced by Lesser Reedmace *Typha angustifolia*. Other swamp vegetation was two small patches of Greater Pondsedge *Carex riparia* on the south-west edge. Plants of the swamp under-storey and adjacent damper ground included locally frequent Purple Loosetrife *Lythrum salicaria*, Water Mint *Mentha aquatica*, Gipsywort *Lycopus europaeus*, Celery-leaved Buttercup *Ranunculus sceleratus*, Bittersweet *Solanum dulcamara*, Redshank *Persicaria maculosa*, Soft Rush *Juncus effusus* and less frequent Hemp-agrimony *Eupatorium cannabinum*. Winter-cress *Barbarea vulgaris* was occasional on some of the more disturbed banks.

Aquatic plants were not very diverse. Floating species recorded were occasional to very locally frequent White Water-lily *Nymphaea alba*, more abundant Yellow Water-lily *Nuphar lutea*, and there was locally frequent Amphibious Bistort *Persicaria amphibia*. Submerged species found in this survey were locally frequent *Myriophyllum spicatum*, *Ceratophyllum demersum* and *Lemna trisulca*, while *Elodea nuttallii* was much more abundant.

Woodland and scrub on the site were most abundant on the north-west side, reducing to scattered small shrubs in the south-east. Planted young trees at the car park included Field Maple *Acer campestre* and Turkey Oak *Quercus cerris*. The woodland in the north-west had frequent tall White Willow *Salix alba*, along with frequent sapling Ash, some larger Ash *Fraxinus excelsior* and rarer tall Oak *Quercus robur*. In drier parts away from the lake, there was very locally frequent Lords-and-Ladies *Arum maculatum*, frequent Ivy *Hedera helix*, which often carpeted the ground as well as growing on a few of the trees, and other shade plants such as Hedge Garlic *Alliaria petiolata* and Hedge Woundwort *Stachys sylvatica*. Bare ground was locally frequent

where shade was most heavy, locally dominant Nettle *Urtica dioica* occurred in the most open parts. Wood Parasol mushrooms were occasional in drier parts of the more heavily shaded woodland. On lower ground, nearer to the water, shrubs of Grey Willow *Salix cinerea* and Goat Willow *S. caprea*, were frequent, as well as much rarer Osier *S. viminalis*. Wavy Bitter-cress *Cardamine flexuosa* was locally frequent in these damper areas of woodland.

Other trees present here included occasional Hybrid Black Poplar *Populus x canadensis*, an Elm *Ulmus sp.* with characteristics of *Ulmus x hollandica*. Toward the northern corner of the site there was some suckering English Elm *Ulmus procera* and there was an open area here with locally dominant Nettle and Bramble *Rubus fruticosus*, along with more tall *Salix alba* on the outer edge, one of which had fallen.

The north-eastern edge was much more open on the outer side of the path. A dry ditch there had locally frequent Great Willowherb *Epilobium hirsutum* and a little *Phragmites*. Beside the ditch was occasional small Hawthorn *Crataegus monogyna* and a little Bramble *Rubus fruticosus* underscrub. Along here the level of the lake and that of adjacent land were converging as the slope at the edge of the path lessened.

The south-eastern edge of the lake was even more open with just occasional small shrubs beside the pit. On the outer side of the path in this area there was a mixture of tall MG1 grassland species and a variety of arable weeds such as Black Grass *Alopecurus myosuroides* and Pinappleweed *Matricaria discoidea* as well as very locally abundant Wall Barley *Hordeum murinum*.

Assessment

The major interest here was the flooded pit and associated swamp vegetation. In this survey a total of 22 plants from the Submerged, Floating and Emergent Plants list was recorded. Some of these were rather scarce but the site is rich enough overall to continue as a County Wildlife Site.