The Wildlife of Milham Ford Nature Park - Past Present and Future

A talk given by Dr Judy Webb at the AGM of the New Marston Wildlife Group - 12 March 2012

Judy took the audience on a journey through the life of the Milham Ford site, starting in the early 17th century, when land off the Marston Road was pasture or under open-field cultivation with ploughs pulled by oxen. Before the site was bought for the building of Milham Ford Girls School (completed 1939), it was still being used by a farmer who raised pigs there. In 1975 some of the original species of wildflowers from the time when the land was in pastoral use were still blooming in the 'quad' and the grassed area was being used as a croquet lawn. Despite considerable development over the years, in 2002 significant wildlife corridors had survived in this part of Marston, as Judy illustrated with an aerial photo commissioned that year as part of the school's farewell celebrations.

However, since that time a significant amount of wildlife habitat has been lost as a result of development - Oxford Brookes's student accommodation in John Garne Way and Marston Road, the new Centre for Islamic Studies, the Harberton Heights houses and flats adjacent to the school buildings, new houses off Lynn Close and Jack Straw's Lane - with consequent disruption of the wildlife corridors used by animals such as foxes, muntjac deer and hedgehogs, birds and also insects. Judy explained that, although Milham Ford Park itself is quite a large green area and is visited by these animals, it provides little in the way of habitat for them to breed and cannot compensate for the loss of trees, hedges and shrubs in its vicinity.

Development uphill from the Nature Park could also threaten the rare flowers and fungi found there, as their survival depends on the lime-rich, phosphate- and nitrogen-poor, water flowing down from Headington Hill. When soil is poor in nutrients, wildflowers that are able to survive easily on meagre rations have an advantage over grass, so are not overgrown by grass. In richer soil, grass will flourish and overpower the flowers and fungi. The lime added to the soil by the water 'flushes' that break out through the soil in the higher part of the Park prevents phosphorus uptake, which inhibits grass growth and thereby benefits the wildflowers.

Consequently, if there is a large amount of development on land above the Park, with a subsequent reduction in the amount of water flowing down to the Park (the water going into drains instead), there will be fewer flowers and fungi. The 14 species of Fairy Club fungus found in the park make the site of national importance for these (one is shown in the photo on the right).

Planners, Judy felt, often did not give sufficient consideration to the preservation of wildlife corridors or of the potential effects of development on wildlife areas some distance from a construction site.

A further threat to the wildflowers and fungi is nutrient enrichment of the soil through dog urine and excrement. Not all dog-owners come supplied with plastic bags to clear up mess and often dogs are left to run off the lead, making it hard for the owners to keep track of any deposits.

In 1987, when Judy began teaching at Milham Ford Girls School, the green area that is now the Nature Park looked quite different, as was seen in her slides showing the tall Lombardy Poplars that flanked the Marston Road edge at that time. When these became unsafe, they had to be pollarded at a cost of £300 to the school. (*They can be seen in their former glory at* http://homepage.ntlworld.com/marilyn.cox/Wildlife%20Group/MF%20deadwood%20and%20young%20trees.htm)
The 'monoliths' that remain still provides a habitat for fungi, birds and insects. Judy emphasised the importance of rotting wood for wildlife. 50% of woodland should be dead wood, as this harbours insects, which provide food for birds.

In 1990 the first **Bee Orchids** were moved from an area needed for a running track to the Harberton Mead side of the site. 35 were counted in 1995 and this had increased to 900 by the time the school closed in 2002.

In 2003 Oxford Brookes University bought the school buildings and before work started on the Harberton Heights housing development, (during which a temporary office was built on the Harberton Mead side of the site), the Bee Orchids were moved to a place where they would not be adversely affected by disruption caused by construction work. Unfortunately, a regime for grass cutting by the City Council was not put in place until four years later. Lack of grass cutting and, subsequently, cutting taking place at the wrong time of year, combined with a couple of very dry Springs, resulted in their disappearance. None were seen in 2011. Hopefully, they will reappear under the right conditions. The Common Spotted orchids, however, are doing very well indeed near the ponds.

When it was announced that the school was to be closed as part of a reorganisation of the education system, Judy led a campaign to protect the green area from development. If the plans initially put forward had materialised, part of it would have been lost to housing and the remainder would have been traversed by tarmacked paths. Judy argued the case for preserving *all* of a habitat that is home to some rare species – fungus experts at Kew still haven't identified a small brown toadstool she found on the site in 2001.

Judy gave the following criteria for suitable flora and fauna to introduce to Milham Ford Nature Park: they must be native to Oxfordshire, have been historically once found within about 10 miles of the Marston area and be of value to wildlife and, as regards plants, have been raised from locally-collected seed (eg roadsides). They should happily tolerate the conditions at the site – Jurassic sandy clay soil, intermittent waterlogging. One exception was the smooth newts, which were brought from a garden pond that was being filled in near Oxford's Dunstan Park.

Stressing the importance of encouraging the spread of British native wildflowers, she explained that non-native varieties sometimes don't flower early enough to be of real benefit to bees and other pollinators. Also, they often give rise to a monoculture that overpowers native species – she gave the example of the Michaelmas Daisies that were taking over the area by the ponds and needed to be kept in check by volunteers.

Thanks to New Marston Wildlife Group volunteers who had been collecting seeds from the Park and sowing them in bare areas, Judy was pleased to report that the wildflower meadow areas were flourishing. Among the plants she listed were Meadow Cranesbill, Cowslips, Hay Rattle, Ox-Eye Daisy, Knapweed, Great Burnet, Lady's Bedstraw and Birds-foot Trefoil, as well as one rarity: Keeled Garlic, *Allium carinatum* (photo right – taken by Judy). The Park is the only site in Oxfordshire where this is found; Judy believed this could have been a throw-out from allotments adjacent to the site many years ago.

All these flowers and the Purple Loosestrife and other plants around the pond areas, attract insects. Judy mentioned some of the more striking ones: Small Elephant Hawk Moth, Lime Hawk Moth, Marbled White Butterfly, Brimstone Butterfly, Six-spot Burnet Moth (shown left on Knapweed) and the blue beetle *Ischnomera cyanea*.

The new hedge area in the park was grown from seed gathered by Judy from local sources and includes Blackthorn, Sloe, Crab Apple (from Shotover Country Park), Guelder Rose, Spindle (from Marston Meadows), Wild Service Tree, Hawthorn and Buckthorn, all intended to provide food for birds and insects.

Judy advised that the best time to see birds in the park was very early in the morning, when there were few people there to frighten them away. Pied Wagtails were now being spotted enjoying the park and its ponds.

The Ponds

Judy showed slides of the digging of the first pond, which was a Design and Technology project at the school in 1989. Its location (not her own choice) in a dry area at the north-west corner of the site was not the best. Water had to be brought to it to fill it and it dried up when rainfall was sparse. It also provided little in the way of habitat at its edges, as grass was kept short to prevent the risk of fires being started. Unfortunately, it was vandalised – paving slabs used as a surround were thrown into the water and the liner was punctured – and so a new pond was created, this time in a wetter area at the south-west corner of the site, where it could fill naturally with water.

In 2008 the school's 8 tennis courts were removed and ground work began for the new ponds and stream course, designed by Dr Curt Lamberth and excavated, with his help by McKenna Plant. Local children have had much enjoyment from the ponds and the clods of mud they have scooped up and dropped on the pond margins have created shallow bays useful for pond life. Wildlife, Judy said, didn't like things to be neat and tidy.
(*Photos and further information about the ponds can be found at*
http://homepage.ntlworld.com/marilyn.cox/Wildlife%20Group/Milham%20Ford%20ponds%20and%20stream.htm)

Some additions to the ponds had not been welcome. Judy listed Nuttall's Pond Weed (*Elodea nutallii)*, and the alien Water Hyacinth (*Eichornia crassipes*), which was dumped at the pond margins, both of which could rapidly spread and cover the surface of the water; two Pike, which would have soon devoured other pond life and other fish, possibly Roach (all moved to a more suitable home), as well as visiting ducks, which churn up the mud and eat the newts, tadpoles, dragonfly larvae, Water Boatmen, etc. Their droppings also add nutrients to the ponds, causing blanket coverage by pondweed, thereby reducing wildlife possibilities.

In 2011 there was one serious incident of sewage pollution of the stream, and consequently of the ponds following jetting of the stream to flush out the sewage. The source of the sewage was not clearly identified, but was either Oxford Brookes's Faculty of Health and Life Sciences or the adjacent Harberton Heights housing development.

Judy said she was pleased with the success of the **Phoenix area**, a part of the site that was churned up when the tennis courts were removed and had been left to its own devices to see what would spring up there after lying dormant for up to 70 years.

Among the plants that have emerged so far are Poppies, Weld, Larkspur, Pansies and, most spectacularly, Apple of Peru, *Nicandra physalodes*, (shown left). On the edge of the Park, where earth was disturbed during the building of the Harberton Heights housing, she was delighted find, among other plants, Charlock, Knotted Hedge Parsley and Cornflower (the last two are listed on the Oxfordshire Rare Plants Register).

The children's play area has proved very popular and Judy found it heartening that the equipment had remained unscathed. However, wildlife has suffered from the proximity of the children. A couple of trees had been badly damaged, but had been dug up and were being cared for in pots. They will be replanted eventually in an area further away from play activity. Elsewhere in the Park, the bark of an Oak tree had been damaged in March 2012 with what must have been an axe.

What does the future hold for Milham Ford Nature Park?

73 years having passed since Milham Ford School was built, Judy wondered what changes the next 73 would bring. Her concerns about wildlife in general were that further development, more roads and paving over of green areas would continue to destroy habitats and wildlife corridors and the connections between them, as well affecting water catchment on which flora and fauna depended, something of particular concern given the reduction in rainfall brought about by climate change.

The fungi, although not making an appearance at present, remain in the ground, but would it be possible to prevent the nutrients added to the soil by dog excrement and urine slowly killing them off and causing the grass to overwhelm the wildflowers? Would there be further sewage leakage into the stream and ponds?

In July 2010 the Park's ponds were only half full and the prediction Judy quoted was that by 2080 there would be 50% less rain in summer and 30% more in winter, giving us considerably less water overall. This will badly affect wildflowers that need moist conditions to flourish, such as Cowslips, Primroses, Bluebells and Violets. The Cowslips at the Jack Straw's Lane side of the Park put on a beautiful display in 2007 and 2008 but now their numbers have considerably diminished due to dry weather. Cowslip seeds had been sown over the last 3 years but the seedlings had withered in the dry spring. No Bee Orchids were seen in 2011. Certainly, Judy believes, consideration must be given to introducing or encouraging the spread of more drought-tolerant species, such as Spiny Rest-harrow, Wild Carrot, Wild Basil, Quaking Grass (photo right) and Betony. Deep-rooted plants will be better able to survive drought.

In concluding her talk, Judy reminded the Group's members that 10 years ago it had been the presence of the orchids and Red Data List species of fungus and invertebrate that had saved the Park from development and that every effort had to made to record the flora and fauna present there and help them to survive.