

A Short Overview of the State of the Countryside around Tickhill

Historic Background and the Situation in 2007

The Geology of Tickhill

To understand the evolution of the countryside around Tickhill it helps to give a simple picture of the geology as this influences the land use and the natural species of flora.

The western part of Tickhill is on the magnesian (Dolomitic) limestone. This appears as outcrops in places where Paper Mill Dike cuts a small gorge through it and where there has been quarrying, elsewhere it is generally overlain by clay. The limestone occurs west of a line approximately following the 50 ft. contour, from Stancil in the north, near the A1(M) east of the town to near the base of Malpas hill on the A60 to the south. **To the east of this line is a peaty deposited soil (warp land)** which routinely flooded throughout the winter, prior to its drainage by Thomas Tofield, of Wilsic, after the canalisation of the Don in the late 17th century. **Further to the east is a prehistoric shoreline of sand and gravel, rising to a sandy plateau.**

Until Anglo-Saxon times, the limestone and sandy lands were well wooded. This is shown by the names of the village of Dadesley (the suffix -ley denotes a clearing in a wood) and its surrounding satellite settlements of Bagley, Hindley, Wellingley, Hesley and the later Danish settlement of Woolthwaite (the Norse -thwaite has the same meaning as -ley).

As the limestone land was cleared, it provided good pasture. To restrain the stock and delineate ownership, the fields that were created were surrounded by hedges. These were made by leaving small trees from the wood and adding further saplings to them. The hedges were therefore made up of a diverse range of species. The heavy clay soil was unsuitable for hand ploughing so the area remained mainly as pasture until the coming of mechanisation. The areas to the NW and SW of Tickhill are known as the north and south wongs, an Anglian word for pasture. The small area of alluvium near the streams and the eastern edge of the limestone were available for some arable use.

18th Century

The warp land, as water meadow gave seasonal grazing as the Low Common until the drainage and the enclosure acts of the 18th century. One of the conditions of the Tickhill enclosure awards was that recipients were required to plant quickthorn hedges around their allocated land. The sand plateau formed the High Common until its enclosure. The hedges on the warp and sand lands generally date from the late 18th century and are of relatively much less variety than those on the limestone. [In the 1980s, it was found that counts of hedge species in each 30m section correlated well with the age of the hedge in hundreds of years, it being assumed that age caused progressively more species to be added. It has since been realised that, although there is a general correlation, it is probably not causal but often results from the fact that

ancient hedges were formed from the varied species to hand, whereas by the time of the enclosures tree nurseries had developed and tended to supply monocultures. The method has become further discredited as recently planted new hedges tend to use a variety of species for environmental reasons].

20th Century

With the coming of mechanised ploughing, it became possible to use the limestone land for arable and, as it retained moisture better and had a better range of nutrients, it became favoured for this. What pasture remains is now mainly on the warp land or sand plateau. As the land around Tickhill is generally good, most of the woodland was removed **before the first world war** and by 2000 it was below 2% by area, compared with a national average of 8%. The bulk of the ancient and enclosure field patterns survived until **the second world war** but, as the predominant land use became arable, the hedges had little agricultural value and required maintenance. The drive to bring every piece of land into effective production at this time and the subsequent EU subsidy of agriculture resulted in the availability of generous grants for the removal of hedges and over 80% have since been lost. Generally this was by uprooting to increase field size but, as machine flails have become available for hedge maintenance, hedges have often been cut progressively lower until the remnants have been choked out by weeds. The old, labour intensive practice of hand cutting was generally done every three years, which allowed hedgerow fruits to be produced on previous years' growth. It has been shown that annual cutting, as is generally the case with the flail, reduces the production of berries to about 5%. Coupled with the loss of hedgerows, this means that the loss of hedgerow food for birds has declined by a factor of nearly 100 since the war. The result is that once plentiful species, such as the hedge sparrow, became rarities.

Modern Influences

In the mid 1990s the position began to change. The Government Stewardship Scheme gave some grants for tree and hedge planting and other grants became available, such as WREN grants from the tipping tax. These were taken up sporadically in the area, examples being the planting of hedges on field boundaries and the creation in 2002 of a 4-acre community wood off Whinny Haugh Lane, which is already providing nesting sites for various warblers. As the EC attempted to tackle what had become excesses of agricultural production, it introduced grants for 'set aside'. This could be designated permanent or temporary. The permanent category allowed a wide range of opportunist wild flowers to multiply, previously confined to waste ground, hedgerows or ditches and gave ground nesting birds, such as skylark an opportunity to reproduce. Temporary set aside was of negligible value to the environment and even possibly detrimental because of the requirement to plough it each year, in July when birds had made nests.

More recently, agricultural grants have been removed from production and diverted into grants for environmental management. The first level of grant requires hedgerows to be maintained, the second to be re-established. Two local farms have qualified for the higher-level grant and some hedges to the north of the town have been replanted or improved. Another use of land that is becoming more popular is the keeping of horses for pleasure purposes. Hedges have been planted in land given over

to pasture off Worksop Road, off High Common Lane and in Castle Fields for this purpose.

A campaign by **the Countryside Group** to plant trees in and around the town has offset the loss from elm disease and building in gardens. Particularly successful has been the re-introduction of many walnut trees for which Tickhill was noted in the 16th century by Leland during his visitation of Yorkshire.

Bird Population

With the above developments, the bird population has been slowly recovering. The range of raptors has increased, possibly aided by the strong water vole population, which itself has been helped by the recent attention of Tickhill Internal Drainage Board to their well-being when dredging watercourses. Maps of their occurrence around Tickhill are attached. The number of barn owls and tawny owls has reduced but little owls have taken up residence and short-eared owls have become visitors as food sources have improved. However, the recent large increase in the worldwide price of grain has resulted in permanent set aside land being brought back into production with the loss of flowering plants and tree saplings that have grown up. It remains to be seen how much impact this has on wildlife.

Flora and Fauna

There is still a wide range of flora and fauna around Tickhill – a recent survey of a small area around Jubilee Wood produced over 100 species of wild flowers, *see attached list*. There are spotted orchid, bee orchids, and many scarce wild flowers if you know where to look but these are generally in isolated pockets and so vulnerable. The same holds true for the foxes, stoats, voles, grass snakes, owls, buzzards, whitethroat, goldcrests to name just a few. The population of bats has declined as old barns, workshops etc. have been converted into residential properties, built to modern standards i.e. bat proof. The population of butterflies declined with the reduction of hedgerows and the loss of larger gardens to building; however, the milder weather has meant that some species have moved north.