

Appendix

INTRODUCTION TO VISITS

This appendix consists of reports of visits, both to the wood and to other relevant sites capable of yielding information of value to the study as a whole. Much of the information is duplicated in the bulk of the study where certain aspects may be investigated further. The text of these reports is almost identical to that in my field ante book, which because of the rather inclement weather, is hardly suitable for inclusion in the study.

I have tried to include the aim of each visit in the report, but on occasions it seemed in order to visit the wood with no specific aim in mind, simply to walk through and observe the wood as an entity, without taking a single narrow line of investigation.

Throughout the reports I have used the symbol of a double asterisk (**) to denote some aspect of work to be given further study at some subsequent occasional visit to the wood.

VISIT TO GILLFIELD WOOD, NOVEMBER 15th, 1974

AIM: To excavate one of the sites which have been noticed on several occasions, known personally as 'pits'.

Chose the pit near to the Topley-Fanshawe Gate footpath and began to excavate an oblique line across the bottom of the pit. The soil was typically podzolic, with fibrous remains; dark topsoil a few inches deep; and a deep layer of pale grey subsoil. There was no trace of an iron pan at the depth of 15 inches. No artefacts of any description were found, but between 7 and 10 inches, several small pieces of coal were discovered. These were mostly charred, suggesting that a fire was once started here, and since there are no coal outcrops in the wood, the pieces must have been brought deliberately to this site. There was no evidence to suggest why a fire had been started here, or to give an approximate date to the occurrence.

Appendix

VISIT TO GILLFIELD WOOD, TUESDAY NOVEMBER 26th, 1974

AIM: To collect samples of mosses and liverworts for identification, and also general observation.

WEATHER: Showery at first, becoming clear and cool.

9:15 Entered the wood from the East. Two large molehills near the intersection of the Totlely-Holmesfield path with the main path. Collected two species of moss from the culvert under the main path at Point 1.

9:20 About to collect sample from path side when I disturbed two birds in the dead bracken near the main path. One flew away, but the other panicked and became entangled in the remains of an old wire-netting fence. The bird was recovered unharmed and was identified as a Woodcock (*Scolopax rusticola*). I took a few photographs of it and released it. The bird flew off in the direction of Holmesfield Park Wood, the only area where I knew this species to exist prior to today's experience. Took a sample of moss from the path side (Point 2).

9:30 Moss from tree stump (Point 3).

9:40 A Heron (*Ardea cinerea*) flew up from Totlely Brook and circled before flying off in an easterly direction.

9:45 Moss and thallose liverwort from the drainage channel at Point 4.

9:55 Moss on tree stump in pit at Point 5

10:00 Moss on tree stump at Point 6. Noticed a small spring on the opposite side of the stream to Point 6 (to be investigated for pH later**).

10:05 Thallose liverwort on a wall by the side of the stream near the bridge to Storth House (Point 7). In a nearby Holly tree was the old nest of a Wood Pigeon (*Columba palumbus*).

10:20 A flood stream, only visible in winter was photographed from the main path. This stream never erodes the grass away from the bed and virtually disappears in summer.

10:35 Dam formed in the stream (naturally?) formed by fallen trees.

10:40 Two molehills near the path (first two seen in the vicinity). Coniferous saplings in Birch copse (Western Hemlock?).

10:45 Moss on stump at Point 8.

10:55 Searched old wood (Area B) for remains of an old fox earth, the hole was found but no trace of any recent occupation by foxes. An owl **pellet was found in this area

of woodland and taken home for dissection. There were no further pellets to be seen, but this area must be visited ** again.

11:10 Two mosses on stump at Point 9.

11:20 Elderberry bush discovered near Scots Pine and field gateway (to ** be put on checklist).

11:25 Heron seen again, flew off towards the east.

11:30 Two mosses on stump (Point 10).

11:35 Collected one moss from stump (11) and one from the ground (12).

11:40 Found a stump with evidence of use by small mammals (use small ** mammal trap at this point)

11:50 Flote Grass (*Glyceria fluitans*) in drainage ditch and also in pond ("swimming pool").

12:05 Moss on small path (Point 13)

MOSSES IDENTIFIED

Site Common name added by editor.

1. *Fissidens taxifolius* (Common Pocket Moss) and
Eurynchium striatum
2. *Rhytidiadelphus squarrosus* (Springy Turf Moss)
3. *Tetraphis pellucida* (Pellucid Four-tooth Moss)
4. *Plagiothecium denticulatum* (Dented Silk Moss) and
Pellia epiphylla (Overleaf Pellia)
5. *Eurynchium velutinum*

Appendix

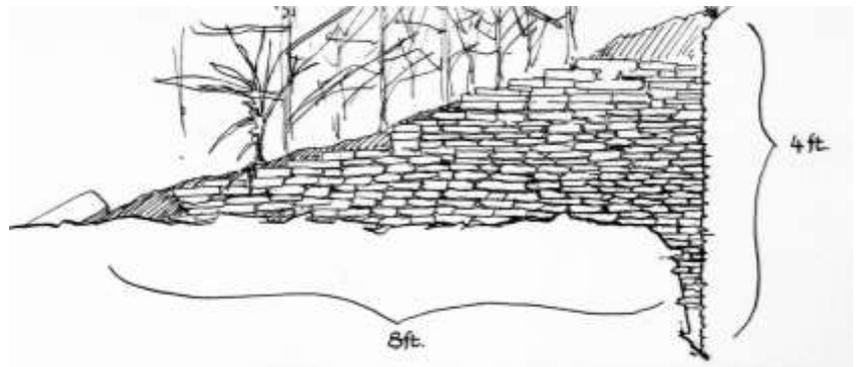
VISIT TO GILLFIELD WOOD, SUNDAY DECEMBER 1st, 1974

AIM: A short visit to rediscover the remains of a structure (building?) first noticed over four years ago, and since never visited.

The structure referred to was rediscovered with some difficulty. It was eventually located, after a search of about one hour, some three metres from the path in a Larch plantation. When this had been noticed originally, the trees were quite small, and it was an easy matter to pick the structure out. Now, however, the site is screened from the path by the Larches and the depression caused by this structure has filled with nettles and Rosebay Willowherb.

This structure is, as far as can be ascertained, three-sided and set into the hillside so that part at least is below the level of the ground. That it can be classified as a building, there is no doubt; the walls are built of flat stones (uncemented) in two layers, so that what is apparent upon clearing away the rotting vegetation is a small building, about 5ft across and, so far as the evidence can be seen, some 8 feet long. The back wall of the building is set quite deeply into the hillside, and from the top of this wall to the lowest level at which the wall is still evident is just over 4 feet. There is considerable evidence that the building was once much higher than it is at present, since the 'interior' is almost filled with small and large stones which presumably, have fallen from the tops of the walls. At the 'entrance', which is facing downhill, there are several large blocks of stone which appear to be lintels.

The walls were vertical, the corners well-constructed right-angles, and the overall appearance was of a construction which had been built with considerable care and skill.



The figure shown overleaf gives an approximate cross-section of the building and indicates that there is about two feet of rubble to be cleared from the floor before any investigation of that may take place. The ground at present is extremely wet and it may be worth deferring a full investigation until more clement weather is forthcoming. The 'pits' referred to previously (15/11/74) and which so far remain something of an enigma, now number fourteen within the wood itself, with many more in area B and in Holmesfield Park Wood. These and the two buildings (the one investigated today, and a similar structure in area C) are to be plotted on a map of the wood (see page 17).

VISIT TO GILLFIELD WOOD, SUNDAY DECEMBER 8th, 1974

AIM: To take pH readings from Totley Brook and its tributary streams.

Samples were taken at nine points with the BDH Capillator Kit. The readings all indicated a pH of 7.5. This is an alkaline reading and seemed at complete variance with the soil pH figures, which averaged between 5.0 and 6.0, acidic figures for what is, from a vegetational point of view, a typical acid woodland. 'The kit was not persevered with and the indicators were taken to be checked and replaced if necessary.

The survey was eventually completed using Johnson's pH Papers, with a range of 5.2 to 6.7.

Appendix

VISIT TO GILLFIELD WOOD THURSDAY, DECEMBER 10th, 1974

AIM: To acquire soil samples for pH testing with B.D.H. Soil Test Kit.

Fourteen samples of soil were collected from various places in the wood, placed in clean polythene bags and taken home for testing. The samples were chosen from sites: which offered some kind of contrast in vegetation, slope or vertical position on the hillside, in order to determine whether any of these factors made substantial differences to the pH level.

The vegetation apparent around each sample was noted briefly, especially the tree layer and the approximate angle was also recorded.

Other items of note seen were:

Long-Tailed Tits (*Aegithalos caedatus*), about 8 in number, were seen and observed closely in a Birch copse. They seemed quite unafraid and were joined by a Blue Tit (*Parus caeruleus* [= *Cyanistes caeruleus*]). The flock eventually moved away, perching at all levels except actually on the ground. Their favourite perches seemed to be Birch twigs, but odd individuals appeared to be quite at ease amongst almost prostrate Honeysuckle (*Lonicera periclymenum*).

The almost completely decomposed carcass of a Mole (*Talpa europaea*) was found on the surface in a Larch copse. The skeleton was not complete, but the lower jaw and both fore paws were easily distinguishable. These were taken and examined at length, especially the lower jaw. The specimen would appear to have been fairly young, since there was little sign of heavy wear on the teeth (the life-span of the Mole is estimated at about three years; Southern: 'Handbook of British Mammals').

At 11:45 a Fox (*Vulpes vulpes*) was disturbed in heavy bracken. The animal seemed to be in good condition with a fine heavy brush. It disappeared over the ridge in a leisurely manner, stopping to look over its shoulder for a few seconds. The Barlow Hunt had put up a fox in the vicinity on Tuesday last (Dec. 10th), but lost it after a chase of some twelve miles.

VISIT TO GILLFIELD WOOD, DECEMBER 22nd, 1974.

AIM: General observation

WEATHER: Fine and sunny

Little bird activity. Great and Blue Tits in evidence, also male Blackbirds (no females) in undergrowth. No sign of the Long-Tailed Tits seen on previous winter visits. Several people in the wood collecting Holly berries for Christmas (some heavily berried trees this year).

The grasses under trees seem to divide interestingly between Wavy Hair Grass (*Deschampsia flexuosa*) and Creeping Soft-Grass (*Holcus mollis*). The former appears to prefer Birch, Oak and fairly open situations, and the latter species mainly under Larch but also under the two trees mentioned previously.

** Further, more detailed study necessary.

Appendix

VISIT TO GILLFIELD WOOD, DECEMBER 23rd, 1974.

AIMS: To find more detailed information of grass distribution.

WEATHER: Fine and sunny

Checked the ground cover under well-established trees which make up a group of a single species. Species chosen for study were Larch, Birch and Sessile Oak. These were the only species at trees which could satisfy the above conditions and be said to have formed a micro-habitat.

Sample	<i>H. mollis</i>	<i>D. flexuosa</i>	U' growth	Shade
OAK				
1.		+	+	open
2.	+	+	+	f. open
3.		+	+	open
4.	+	+	+	f. open
5.	+		++	Bracken
6.	+		++	Bracken
7.	+		++	Bracken
8.		+		f. open
9.		+		open
10.		+		open
	(5)	(7)		
BIRCH				
1.		+		open
2.			+++	heavy u'shrub
3.		+	+	f. open
4.	+		+	f. open
5.		+		open
6.		+	+	open
7.	+		++	f. open
8.		+	+	open
9.	+	+	+	f. open
10.		+	+	open
	(3)	(7)		

The numbers of times of occurrence of the species in the ten samples shown in brackets under the species heading.

Sample	<i>H. mollis</i>	<i>D. flexuosa</i>	U' growth	Shade
LARCH				
1.	+		++	Bracken
2.			+++	Bracken
3.	+		+	Bracken
4.	+		+	Bracken
5.	+		+	q. heavy
6.	+		+	Bracken
7.	+		+	Bracken
8.	+		++	q. heavy
9.	+		+	Bracken
10.	+		+	Bracken
	(9)	(0)		

Appendix

VISIT TO GILLFIELD WOOD, SUNDAY JANUARY 12th, 1975

AIM: Collection of soil samples to determine pH values.

Sample	Description	pH
1	Near eastern gate. Ground cover Cocksfoot. Fairly open, slope nil.	6.0
2	Very open area, short vegetation. Slope about 5 degrees.	5.5
3	Near stream, slope nil, thick ground and shrub layers. Bracken, Raspberry, Tussock Grass.	5.7
4	By swimming pool, not shaded, slope nil. Dominant grass, <i>Holcus mollis</i> .	6.0
5	Under Birches at site of Quadrat B1. Soil podzolic. Open to light from SE.	5.7
6	Near path, slope nil, dense shrub layer. Dominant plants Rosebay Willowherb, Timothy, Creeping Buttercup, Red Oak saplings.	5.7
7	Near stream, flat. Dominant plants <i>Holcus mollis</i> , Rosebay Willowherb.	5.5
8	Near path. Bracken, Wavy Hair Grass, Oak trees. 8-degree slope.	6.0
9	Marshy area, 5-degree slope. Great Woodrush, Tussock Grass, <i>Juncus</i> sp., Meadow sweet. Gley soil.	5.5
10	Near path, level. Bracken, Oak saplings, Tussock Grass, <i>H. mollis</i> .	5.5
11	Near stream, level. Tussock Grass, Sycamore and Beech saplings, Blackberry.	5.5
12	Open ground near the path, slope about 10 degrees. Bracken, <i>Holcus mollis</i> . Very podzolic.	5.5
**13	Level, very wet, thick layer of rotting vegetation. Rosebay Willow Herb. Gley soil.	7.0
14	Under Birch in Quadrat B3. Sample taken from tussock - found to be a very old rotten stump completely covered with <i>Deschampsia flexuosa</i> .	5.5
15	Open, level situation by the stream. Dominant vegetation <i>H. mollis</i> , Bracken.	5.7
16	Flat marshy area. Rosebay Willowherb, Cocksfoot, Raspberry.	6.0
17	Quadrat L3 under Larches.	5.7
18	Quadrat L4 under Larches.	5.5
19	On level area, fairly open situation, Bracken, <i>Holcus mollis</i> .	6.0
20	Quadrat B8 under Birches.	5.5
21	Fairly level by the stream. Rosebay Willowherb, <i>Holcus mollis</i>	5.5
22	Quadrat O1 under Oak	5.5

Sample 13, with a pH value of 7.0, seemed very much out of line with the rest of the results obtained. 'The average pH reading so far (36 samples) is

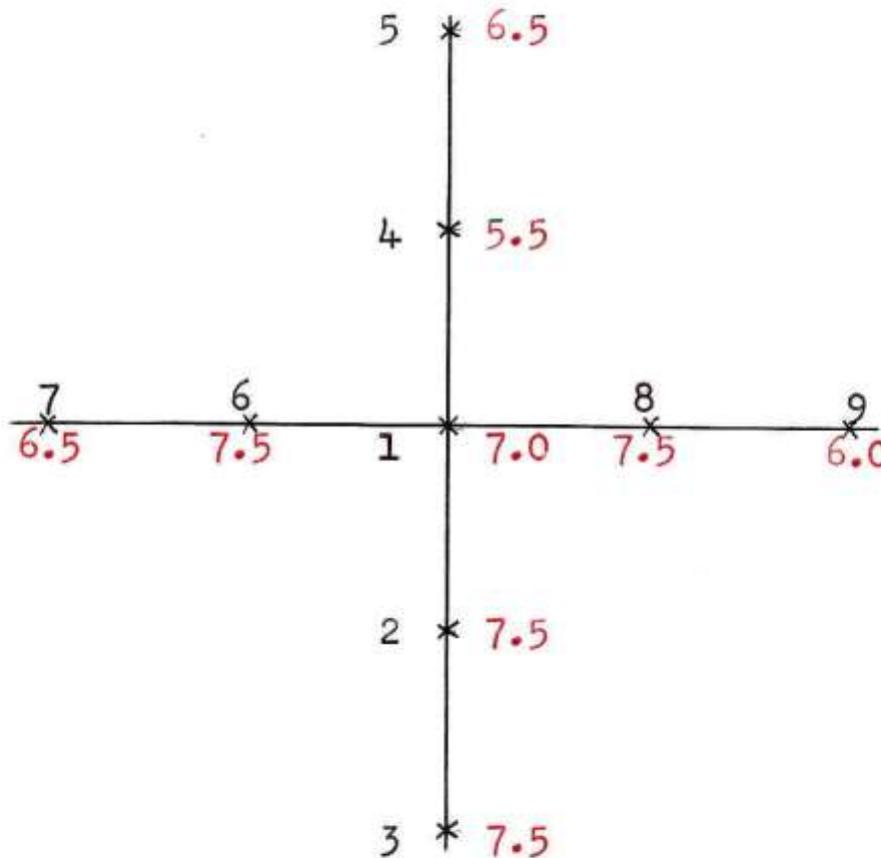
** 5.6. Another series of samples is planned, based upon site 13 to verify this reading.

Appendix

VISIT TO GILLFIELD WOOD, TUESDAY JANUARY 14th, 1975

AIM: To check pH readings of January 12th with respect to sample 13 which produced a figure of 7.0. This seems rather out of character with the rest of the wood, which tends to give acidic reactions.

Further samples were taken, one from the same place as sample 13, and others in a radiating pattern from this point at one foot intervals (see diagram below).



The results are shown on the diagram. Whilst collecting samples, I looked around the area to see if there was any man-made factor which might explain this pocket of alkaline soil. There were five empty fertilizer bags nearby, the contents were still visible, but the brand named had been erased. The details were: "Nitrogen 22%; Phosphoric acid 11%; Potash 11%".

** Further investigation (time allowing) into the pH of this fertilizer should indicate whether or not this is the cause of the abnormal reading.

A male Yellowhammer (*Emberiza citrinella*) was seen briefly, and a well-defined Badger print was noted in soft mud on the path. It would seem to be the hind paw and measured 46mm at its greatest width.

The site of the rectangular building (see visit of 01/12/74) was visited and an attempt made to move further stones in order to reveal the ground level of the building. This proved impossible to accomplish single-handed since the removal of soil and nettle roots revealed a huge slab of stone which proved almost immovable. The stone was 12cm thick; 76cm wide; and 1.38m long. The rock was prised up to an angle of about 45 degrees but could not be maintained in this position. A brief glimpse underneath revealed dry soil, a network of rodent or shrew burrows and a further collection of stones from the collapsed walls.

This investigation was proving fruitless, so a brief inspection of the quarry was made, this being found in a nearby field (map ref. 3055 7895 on sheet SK37). There was evidence of animal activity amongst the dumped chaff in the quarry, suggesting that the Brown Rat (*Rattus norvegicus*) was responsible, but none were seen neither were any droppings found. The rabbit warren which existed here some two or three years ago has declined, and there were few droppings to indicate their presence. The stone evident along the sides of this quarry seem identical in colour and texture to those used to build the collapsed 'shelter' found in the wood. The stone splits easily and evenly to give a flat surface ideal for building structures without a mortar binding. The size of the stones in the quarry vary from small chippings to very large slabs larger than the one described above.

I next visited Little Wood (Hare Wood on old maps and to the locals), this lies to the north of Gillfield Wood. My main purpose was to determine whether there was a Badger sett in this wood, since I had tracked Badger trails to this vicinity on several occasions. The wood is small and rather unkempt in appearance, there are several fully mature trees and many saplings. A considerable number of logs have been left to rot at the eastern end of this wood. No Badger sett was found, nor any tracks.

A tributary stream of Totley Brook begins at a spring just to the west of this wood, and this was followed back to Totley. There has been considerable dumping in this brook, and objects such as washing machine chassis, large metal drums, and one marked clearly "POISON Sodium....." (this last part was illegible). ** This dumping may have to be taken into account if any aberrant pH readings occur in the study of the stream.

Appendix

VISIT TO GREEN OAK PARK, TUESDAY JANUARY 21st, 1975

AIM: To interview several of the elder male residents of Totley about their recollections of Gillfield Wood during the early part of this century.

Several interesting stories and anecdotes emerged during the conversations but many of these will require a more detailed investigation at a later date. Only those details which tend to fit in with the known facts or were substantiated by other members of the group have been accepted for inclusion in this account, since memories often tend to fade or be elaborated as the years pass.

Reference was made to the 'dug-out' which, after further questioning and reference to a map of the area, was recognised as the building referred to in the report of December 1st, 1974 (page 115). This building was quite clearly remembered by all of the men as being a 'shooting-lodge'. They described how shooting parties organised by the last owner of Totley Hall estate (W. A. Milner) used to have picnic lunches there. It was apparently equipped with a stove for brewing a drink, and the large stones (one of which is described on page 123) were once roofing stones. All the men remembered these items but the actual shape of the building when complete was more hazy (further interviews will be necessary to clear up this point). Mr. Milner used to shoot as far as the furthest part of Holmesfield Park Wood. The pheasants for these shoots were raised in the arm of the wood designated 'Area C' in the Introduction to this account. This part of the wood is known to the village locals as 'Pheasant Wood' and has always, in living memory been kept strictly private. The gamekeeper was called Mr. Bradley and was probably the last full-time 'keeper to work in Totley. He placed rails between the trees for the pheasants to use as roosts and kept food for the birds in a shed in the wood. The locals related with relish that much of this food, which contained nuts and raisins, did not reach the pheasants! This 'shed' and the shooting-lodge referred to previously, seem to be almost identical in construction, and yet the locals were all but unanimous that the stone building in Area C has been built recently. Visual observation of the manner of construction would tend to contradict this view.

The quarry mentioned in the report of January 14th, 1975 (page 123) was private and owned by the Totley Hall estate. It has not been worked in living memory, but in all probability the stone was used for private building by the owners of the estate, such as the two stone buildings previously mentioned in the text above, and the stone walls which partially surround the wood.

The 'swimming pool' near the eastern end of the wood has been cleared out twice in living memory, but all agreed that the swimming pool has "always been there" and they could not remember any hearsay evidence of the pool being constructed.

Derisory comments were directed at the Council, whose decision to protect all the young trees from rabbits by giving each tree a wire netting screen, There was general agreement that there had never been a significant number of rabbits in the district. I feel inclined to agree with the statement since there are very few rabbits in the area at present, and the supplier of this information was the former village poacher. Mr. Frank

Taylor had spent many years as the earthstopper to the local Barlow Hunt and told me that foxes had always lived in and around the wood but that badgers, locally quite common, had never been resident within the wood.

A latecomer to the gathering proffered the information that the 'pits' which have been the subject of many hours research and so far, fruitless research, were the remains of charcoal burners workings. I was sceptical, but he told me that he had been a woodsman in Ecclesall Woods in his youth, and that these pits were common throughout the area.

Several of the men said that they commonly used to swim in Topley Brook in their youth and had dammed up the stream to create pools deep enough for that purpose. The practice appears to have been discontinued.

There was a great deal of general information about Topley in this discussion, but much of this falls outside the terms of reference of this study of Gillfield Wood.

Appendix

VISIT TO GILLFIELD WOOD, SATURDAY FEBRUARY 1st, 1975

AIM: To collect information about shade or light loss under trees previously investigated with reference to grass species.

All measurements were taken with a Gossen 'Sixtar' photographic exposure meter. This was held up at arm's length for readings in the open and rested on the ground for readings under trees.

Numbers in left-hand column correspond to numbers of samples first investigated on December 23rd (see page 119).

OAK

Sample	Open	Shade	% light lost
1.	12.1	11.8	2.5
2.	12.6	12.2	3.2
3.	12.3	11.8	4.9
4.	11.8	11.5	2.6
5.	11.8	11.4	3.4
6.	11.2	10.5	6.3
7.	11.1	10.5	5.4
8.	11.1	10.6	4.5
9.	11.2	11.0	1.8
10.	11.2	11.0	1.8

The average light loss was 3.6%

BIRCH

Sample	Open	Shade	% light lost
1.	11.6	11.2	3.6
2.	11.8	10.0	15.5 *
3.	11.8	11.4	3.4
4.	11.8	11.4	3.4
5.	12.1	11.8	2.5
6.	12.0	11.8	1.7
7.	12.1	12.0	0.9
8.	12.4	12.0	3.2
9.	12.5	11.3	8.2
10.	12.3	11.7	4.9

The average light loss under Birch was 5.2% (this included an exceptionally high figure of 15.5 in one area of very dense undergrowth, noted *).

LARCH

Sample	Open	Shade	% light loss
1.	11.7	10.8	7.7
2.	11.8	10.7	9.3
3.	11.8	10.9	7.7
4.	12.0	10.8	10.0
5.	12.4	10.8	12.9
6.	12.0	10.7	13.6
7.	12.0	10.6	11.6
8.	12.4	11.0	11.3
9.	11.7	10.3	12.0
10.	12.1	10.8	10.8

The average light loss was 10.5%

General Notes

Spring seemed very advanced - bluebells are showing through the leaf litter up to 3" high, and Larch leaves are in bud, with leaves showing through in exceptional cases. Hazel catkins are fully out on some bushes.

Caught the scent of a fox several times during the morning and found evidence that it has a day-time resting place on the ridge near the western end of the wood. Several large bones have been gnawed and scattered around a small area which is criss-crossed with narrow well-trodden paths leading away from the place. Seems to be evidence of river terracing towards the west end of the wood (photographed). Badger prints again on the main path.

Birds: large flock of Fieldfares (*Turdus pilaris*), estimated up to 70 individuals in Beech tree - flew off to old copse (Area B) when disturbed. Great activity by Blue Tits (*Parus caeruleus* [=Cyanistes caeruleus]) and Great Tits (*Parus major*). A single Coal Tit (*Parus* [=Periparus] *ater*) was seen near the first bridge - the first of this species for two years. A pair of Mallard (*Anas platyrhynchos*) was disturbed from Totley Brook near to the same bridge, they allowed an approach to within about 5 yards.

** Further work on the shade factor must be done during the spring months and also in high summer when the vegetation is at a peak.

Appendix

VISIT TO GILLFIELD WOOD, FRIDAY FEBRUARY 21st, 1975

- AIM: a) To complete readings of shade L7.
b) To complete pH readings at the western end of the wood.
c) To compare occurrence of Bluebells with shade readings - correlation
d) General observation.

WEATHER: Cool with hazy sunshine

Great bird activity within the wood, mostly unseen but quite noticeably heard. Blue Tits and a single Missel Thrush active in extreme east end of the wood. Larch trees at the eastern end now breaking bud, and green flush detectable on almost all trees. Male Larch flowers out on some trees but no female flowers seen. Hazel male and female flowers out. Great disparity in the numbers of male Blackbirds over females - ratio about 5:1. Wood Pigeon, Jay, Magpie, Great Tit, Lapwings (3 in flight).

L 7 = 12.0 (open), 10.6 (shade)

Strong scent of fox again near Holly bush and N. disused gateway.

On Ridge slope

Larva of skipjack beetle (*Melanotus rufipes* [= *Melanotus villosus*]) in rotten log, also hibernating Ground Beetle and many tunnels through wood - could be caused by *Sinodendron* larvae and adults. Fewer Larch buds open in this exposed area. Badger toilets on crest of Ridge, 14 counted, at least three used very recently. Three openings found, with fresh dry Bracken and grass drawn down into entrance. No fox scent or rabbit droppings - must be Badger sett. Paths from entrance of holes leads to flat area commented upon **previously (Sat. February 1st, 1975) - observation necessary. *Lycoperdon pyriforme* on old stump. Another possible Badger sett found near extreme NW corner of wood, well concealed in Bracken. This is close to a seemingly disused rabbit hole (very narrow opening) no droppings in evidence. Bluebell survey not possible owing to insufficient growth of Bluebells - **try again in three weeks. Two molehills near western gate. At the point of entry into the wood of Totley Brook, there was once provision for the stream to pass through the small retaining wall. The stream does not now follow this route but goes outside the wall. Badger dung pits with fresh dung by the stream, also a clear footprint in the mud. By the side of the original pathway is a small spring which has formed a pool. Left the wood by the Storth House - Totley path towards Totley one Wren seen on leaving the wood.

There seemed to be much more activity amongst the birds today that at any other time since the study commenced, no doubt the spring-like weather helped in this respect.

Samples of pH collected to finalise this aspect of the study.

VISIT TO GILLFIELD WOOD, FRIDAY MARCH 7th, 1975

AIM: To map the tributary streams running into Totley Brook within the boundary of Gillfield Wood, and general observation.

Traced the course of the tributary streams and plotted them on a map to be transferred to a copy later (see page 30).

Whilst following these tributary streams, two patches of Stinging Nettle (*Urtica dioica*) were found. This plant is rare in the wood and is one of the plants which tends to be indicative of disturbed ground, so it was with interest that the only specimens found were in the vicinity of the drainage ditches, which have been dug out by man.

A Grey Squirrel (*Sciurus carolinensis*) was seen being mobbed by a Jay (*Garrulus glandarius*) near the Totley-Fanshawe Gate footpath. The Jay flew away still calling loudly when it became aware of my presence. The Squirrel disappeared amongst the large Alders and Oaks by the stream. This was the first Squirrel to be seen within the study area since this account was started.

A Kestrel (*Falco tinnunculus*) was observed for about seven minutes, hovering at the extreme western end of the wood at the crest of the Ridge. It apparently was using the updraught of air caused by the rising ground, as it was able to maintain its position without the characteristic wing action for long periods. No kill was observed.

The area immediately around the Badger sett was covered very carefully and an approximate map of the sett entrances and principal runs was made (see page 76).

There seemed to be an abundance of the flies of the genus *Scathophaga* and these could be seen flying slowly around the main path. These flies are very common in the summer months, and feed and breed on dung. They have also been known to behave in a carnivorous manner and capture other flies in flight.

Appendix

VISIT TO GILLFIELD WOOD, SUNDAY APRIL 6th, 1975

AIM: To take a second series of readings under specified copses to add to those taken on February 1st, 1975. Also, to make any general observations.

WEATHER: Intermittent bright sunshine.

Site	Open	Shade	Difference	%
B1	11.9	11.5	0.4	3.3
L1	11.9	10.5	1.4	12.1
B2	12.1	10.4.	1.7	14.0
L2	13.9	12.2	1.7	12.2
B3	13.0	12.3	0.7	5.4
L3	12.8	11.5	1.3	10.1
(Bluebells now dominant)				
L4	12.8	11.7	1.1	8.5
B10	12.5	12.2	0.3	2.4
O1	13.7	13.3	0.4	2.2
B8	12.7	12.4	0.3	2.3
O2	13.9	13.5	0.4	2.2
O3	13.9	13.4	0.5	3.6
B7	12.7	12.3	0.4	3.1
B4	13.9	12.8	1.1	7.8
L6	13.6	11.9	1.7	12.5
L7	13.7	11.4	2.3	16.7
(Bluebells dominant)				
B5	13.7	13.4	0.3	2.2
L8	13.4	12.0	1.4	10.4
B6	12.4	12.1	0.3	2.4
L9	14.0	11.8	2.2	15.7
L10	14.0	12.2	1.8	12.8
O4	13.7	13.2	0.5	3.6
O5	12.6	12.2	0.4	3.2
O6	13.0	12.6	0.4	3.1
O7	13.4	13.0	0.4.	2.9
O8	12.5	11.9	0.6	4.8
O9	12.2	11.6	0.6	4.1
O10	12.2	11.9	0.3	2.4
B9	13.6	13.0	0.6	4.4
L5	13.8	12.8	1.0	7.2

It was quite evident that there has been a remarkable increase in the Bluebell (*Endymion non-scriptus* [=*Hyacinthoides non-scripta*]) since the first set of readings was taken. They were the dominant species under Larches on the following sites: 3, 6, 7, 9, and 10. It was most noticeable that there were very few plants on the margins of the path, most

were in the Larch plantations or under old Bracken stems. Wood Anemones are now in flower although they have not yet reached their peak. Many female Larch flowers are out, their petals are slightly reflexed and vary in colour from deep pink to yellowish green. Western Hemlock (*Tsuga heterophylla*) has been planted in two sites - number of saplings counted now equals 37 (sites are B7 and B5).

There is evidence of great Badger activity in the wood. This is especially noticeable on the raised ground immediately west of the Totley-Fanshawe Gate path, but no sign of new setts in this area. One or two 'digs' were found but no dung pits. A visit was made to the Badger setts at the western end of the wood, and one of the main paths was followed east along the Ridge for about 350 yards, passing a series of freshly used dung pits around a group of young Larches. The path led through a Larch plantation to the old gateway (3041 7895) where two newly excavated holes were found. These were previously believed to be old disused Rabbit burrows, but they may be exploratory diggings prior to the establishment of a new sett, which may be a nursery sett. The path to it had been used very recently, as the grass was still bent, and the train was very easy to follow in the morning dew. Many side paths led away over the wall into the fields to the north or downhill in the direction of the stream.

Several large tree-trunks near the Totley-Storth House footbridge give witness to the fact that there were some very large trees in this wood. The bark has now rotted away, but the remaining stumps have diameters which reach 3ft 6in. The stumps show evidence that they have been uprooted, but whether this occurred before or after felling is impossible to say – the former seems most logical.

Appendix

VISIT TO DONCASTER MUSEUM, APRIL 16th, 1975

AIM: To verify identification of Diptera found and photographed in Gillfield Wood.

Fifteen slides of species of Diptera found in the wood had been tentatively identified using "Flies of the British Isles" by Cloyer & Hammond (Warne 1951). The object of the visit was to verify this preliminary identification by discussing the slides with Peter Skidmore, of the staff at the Museum. Cloyer & Hammond's book is very comprehensive in that it mentions every genus and many species but it cannot cover the whole of the 5000 species on the British list. Most of the species had been identified correctly, but one or two were incorrect. The corrected list is:

Servillia [= *Tachina*] *ursina* (female) parasitic upon Lepidoptera

Eristalis horticola

E. tenax

Sericomyia borealis [= *silentis*]

Helophilus pendulus

Volucella pellucens

Merodon equestris

Xylota segnis

Graphomya maculata

Syrphus ribesii

Syrphus [= *Episyrphus*] *balteatus*

Haematopota pluvialis

Mesembrina meridiana

Stomoxys calcitrans

None of these species was described as rare, but *Servillea* [= *Tachina*] *ursina* is local in distribution and has not been taken from the Sheffield region previously. This simply means that either it is present in small numbers and has been overlooked because of the early time of emergence, or that there are few people with a working knowledge of the Diptera and who would recognise something rather more unusual than just another fly.

VISIT TO GILLFLELD WOOD THURSDAY, APRIL 24th, 1975

AIM: To observe the Badgers and if possible, make some assessment of their numbers.

Entered the wood from the eastern end at 7:45 pm, the weather was fine and warm. The solitary bee colony which is to be found annually on the main path just inside the wood shows signs of life. There are small heaps of soil which have been excavated by the emerging bees (*Andrena armata* [=*Andrena fulva*] in previous years). The first Bluebells (*Endymion non-scriptus* [=*Hyacinthoides non-scripta*]) to break bud were seen along the main path in several places. Three pairs of Yellow-Hammers (*Emberiza citrinella*) were flying around a clump of Larch trees near the path.

Almost all the Larch trees are now in leaf although they have probably not reached a peak yet. The Birches are also breaking leaf, and several trees are now quite green - the whole wood has taken a fresh green aspect in the past few days, due no doubt to the recent spell of very warm weather.

Arrived at the western gate at 8:15 pm and sat there to await developments from the nearby Badgers' sett. The Rowan tree on the left of the gate has leaves, and the Sycamores have broken bud here too. Another sign of the imminent bursting of the Oak buds is the dropping of last year's dead leaves.

At 8:40pm, with the light fading fast, a queen Bumble Bee was still flying, and the Robin continued singing until 9 o'clock, the Blackbird finishing about five minutes later. At 10 minutes past 9, a Pipistrelle was flying around the trees near the gate, and a white moth was seen, but not identified, at the same time. The evening was abandoned when a herd of cattle from the field clustered round me in curiosity, they made such a noise that I considered that there was little chance of seeing the Badgers without moving position and so prolonging the wait by several hours. A further visit when the wind is in a more favourable direction will be essential to acquire the necessary information.

Appendix

VISIT TO GILLFIELD WOOD, MAY 3rd, 1975

AIM: To complete stream survey

Five sites were visited, scattered through the length of the wood. The sampling was done on a time basis, ten minutes being spent at each site, and the numbers of species recorded, along with a note of their frequency. A pH reading was taken at each site, and also from each feeder stream running into Totley Brook.

The results were as follows:

Animal	Site A	Site B	Site C	Site D	Site E
<i>Polycelis felina</i>	-	-	4	1	-
<i>Glossiphonia complanata</i>	-	-	-	1	-
<i>Gammarus pulex</i>	-	-	2	15	3
<i>Perla sp.</i>	-	5	5	9	12
<i>Isoperla sp.</i>	-	-	3	5	-
<i>Baetis sp.</i>	1	5	5	9	12
<i>Ecdyonurus sp.</i>	-	-	-	9	20
<i>Heptagenia sp.</i>	-	1	-	-	6
<i>Velia caprai</i>	-	-	1	-	-
<i>Laccophilus hyalinus</i>	-	-	-	1	-
<i>Philopotamus sp.</i>	-	-	-	2	1
Case-building Caddis	1	-	3	17	2
<i>Pedicia sp.</i>	-	-	-	1	-
<i>Simulium sp.</i>	-	-	-	-	1
<i>Chironomus sp.</i>	-	2	1	3	3
<i>Hydrobia jenkinsi</i> ¹	-	-	2	6	43
<i>Ancylostrum fluviatile</i> ²	-	48	21	18	31
<i>Limnaea pereger</i> ³	17	7	2	7	2
Total number of species found at site	3	6	11	15	12

Site A: this was near the western end of the wood and was open to the fields to the south. The stream bed was silty with a few stones, cattle fouled the water frequently. **pH 5.5**

Site B: this was in the shade of the mature woodland designated Area B and immediately after the confluence of Totley Brook with a small stream from the pastures to the south. Stony stream bed with appreciable amounts of sediment. **pH 5.8**

Site C: situated in fairly open woodland near the site of an old meander of the main stream. Stream bed solid with small stones and rocks. **pH 5.8**

¹ Now named *Potamopyrgus anitpodarum*.

² Now named *Ancylus fluviatilis*.

³ Now named *Radix balthica*.

Site D: this was on a wide, shallow area of the stream, dotted with many flat rocks and stones. The stream bed was solid. **pH 5.5**

Site E: sample taken near the old swimming pool, water shallow, solid stream bed with stones lying flat. **pH 5.8**

A selection of grasses was also taken for identification, the species found were:

Poa annua

Festuca pratensis

F. gigantea

Deschampsia caespitosa

Glyceria fluitans

Calamagrostis epigejos

Agropyron [=Elytrigia] repens

Alopecurus pratensis

Lolium perenne

Holcus lanatus

H. mollis

Dactylis glomerata

Agrostis tenuis [=capillaris]

The key used was 'Grasses' by Hubbard.

Lepidoptera (Moths)

Northern Spinach

Silver Ground Carpet

Heart and Dart

Dark Arches

Ingrailed Clay

Flame Shoulder

Modelled Rustic

Hymenoptera

Ophion luteus Yellow Ophion (Ichneumon)

Caught at light trap – 27th/28th June 1975 10:45pm. to 3:45am.

Appendix

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MAPS

Ordnance Survey:

1: 2500 or 25" to 1 mile sheet SK3078

1: 10560 or 6" to 1 mile sheet SK37

Ordnance Survey for the Geological Survey

6" to 1 mile sheet SK 38

TECHNICAL DATA

Photographs: colour prints taken from 35mm transparencies on Agfa CT18 and Kodachrome II
monochrome - Ilford FP4

Cameras and Lenses: Zeiss Ikonta 80mm Tessar

Praktica L with the following lenses:

30mm f3.5 Lydith

+105mm f4 Novoflex lens head

+75mm f3.5 Autocrat enlarging lens

+50mm f4 Gnome enlarging lens

+ these lenses used for close-up photographs in conjunction with a bellows unit.