

MARSH TO BE PRESERVED AS NATURE RESERVE

ONE of the finest examples of marshland in the country, Sawbridgeworth Marshes, is to be preserved as a nature reserve by the Hertfordshire and Middlesex Trust in conjunction with the Essex Trust.

The 22-acre tract of land has been known about as a valuable marsh for many years by botanists, but in the last decade it has been growing derelict.

A few years from now nettles and other weeds would have obliterated most of the rare plant life in the marsh, so the trust stepped in and purchased the land from the Royal Wanstead School Foundation.

Mr J. L. Fielding, of Lower Road, Little Hallingbury, is responsible for organising the management of Sawbridgeworth Marsh.

He explained that two years ago it had been described in a book about fauna and flora in Hertfordshire as being one of the finest examples of its kind.

But the problem was that when farmers stopped using it for grazing cattle the land became derelict. "We thought it extremely necessary to retain the valuable marsh flora and fauna," he said.

The marsh contains a willow plantation which will have to be recultivated with new willows.

Two very rare types of snail are to be found in the marsh—one of only two places in the British Isles where they have been seen.

A local management committee is going to be set up to run the marsh, which will be fenced off in the near future.

"We will need voluntary help," said Mr Fielding. "There is already a working party in Hatfield Forest, but there will be a need for more help."

The actual site known as Sawbridgeworth Marsh runs from the railway line in Sawbridgeworth in the direction of Gaston Green. In 1880 a tract of land in the town was referred to as being very rich in fauna and flora, and it has been assumed by the trust that the 22-acre site is the marsh in question.

Marshes are being drained all over the country, because farmers are finding it necessary to use them for agricultural land. The

trust is setting out to preserve a few examples before they all disappear from the area.

"The river area along Spellbrook used to be very attractive, but it has been allowed to run down," added Mr Fielding. "We do not want that to happen over the whole county."

It will not be practical to keep the marsh in order by grazing, so the trust plans to mow it during the year. They are raising an appeal to get the several thousand pounds necessary to restore and run the marsh.

During the winter most of the marsh is underwater and treacherous. So it will be fenced off. But members of the public who wish to visit it will be able to apply to the trust for permission.

The move represents the first time the Herts and Middlesex Trust have joined forces in a scheme of this kind with the Essex Trust. Although only a small part of the marsh is in Essex, that county's trust has agreed to enter into a fifty-fifty partnership.

SAWBRIDGEWORTH MARSH NATURE RESERVE

by John Fielding

Sawbridgeworth Marsh was purchased in 1979 by the Herts. and Middx. Trust for Nature Conservation from the Royal Wanstead School Foundation which at that time owned the Hyde Hall estate. Hyde Hall being used as a girls' school, the farm lands and marsh being let. The marsh straddled the county boundary, and although the greater part was in Hertfordshire, it was situated on the Essex side of the River Stort and it was thought to be a good idea if it was jointly owned with the Essex Trust. The Essex Naturalists' Trust therefore acquired a half share and the first working party met on the Reserve in September 1970.

The Reserve consists of three distinct areas (all of which were shown as pasture-land on the 1838 tithe map) - ten acres of waterlogged marsh, six acres of peaty meadow sloping up from the marsh to the road on the eastern boundary, and a low-lying willow plantation of six acres to the south of these two areas. Much of the marsh is under an inch or two of water for most of the year.

In the winter months it is fed by springs and flushes emanating from the upper slopes. The western boundary is formed by the channel of the old river Stort now a backwater of the Stort Navigation. The 1838 tithe map shows five distinct enclosures; Little Valet Homes and Great Valet Homes where the willow plantation now stands, Round Moors and Rush Mead comprised the meadow area adjacent to the road, and North Mead was the area now occupied by the marsh. The present surface topography of the Reserve shows that extensive drainage operations have been carried out in the past but the internal drainage channels are now mostly silted up.



The willow plantation is the most low-lying part of the Reserve and is regularly flooded in the winter each time the river overflows, but most of the year it is relatively dry as it is separated from the marsh by a main drainage ditch into the Stort and is not fed by springs. It appears to have been first planted with willows in the 1920's mostly with *Salix alba* standards for cricket-bats and Crack Willows (*Salix fragilis*) which were apparently mostly required for coppice. The Cricket-Bat Willows have now all been felled and sold but the Crack Willows appear to have been coppiced once only since planting. Those which have not been coppiced or pollarded under Trust management have grown very long, stout

poles which due to their weight are causing the stocks to split and open up in the centre. The plant life in the willow plantation is unspectacular being mainly nettles and goosegrass with various grasses and other rank herbs, and a few Marsh Marigolds in the ditch depressions. A few Alders and Birch have been planted since purchase and the stand of suckering Elm which had invaded the eastern part of the plantation has now been largely killed by Dutch Elm disease and felled. It is intended to replant with Cricket-Bat Willow and if the water table is right to dig a large pond in the centre. The main natural history interest of the plantation has been its bird life with most of the common warblers in the summer months and various tits including Willow Tit, and also Long-Tailed Tit which has twice nested near the road. Tree-Creepers are usually present and a Wryneck was seen and heard on 28 July 1971. Insects are plentiful.

The marsh and meadow were known to the author for many years prior to purchase as a large waterlogged peaty field which provided rough grazing for cattle during the summer. It was treacherous and liable to flooding in winter and there were stories of cattle being trapped in its deeper parts. Otters were believed to haunt the area and Lapwing and Snipe were always present during the breeding season. Its flora was thought to be monotonous because of the large stand of sedge and rush, and it was considered less interesting than other similar areas in the Stort valley and elsewhere in the neighbourhood which were then still used for grazing. The most interesting part was a small area on either side of a former drainage ditch between the sloping meadow and the sedge bed. The flora here was typical of other marshy meadows in the upper Stort valley, but two local rarities, Blunt-Flowered Rush (*Juncus subnodulosus*) and Fen Bedstraw (*Galium uliginosum*) were present in some quantity. There was an interesting zonation of vegetation because of the increasing wetness of the field as it sloped down from dry clay loam at the roadside, through damp peaty soil to deep waterlogged peat, and then to the shallow water of the marsh. This change in soil and water regime produced clear bands of colour through the seasons as grasses gave place to rushes and then sedge and Marsh Marigold was succeeded in turn by Ragged Robin, Yellow Iris, willow-herb, Valerian and Purple Loosestrife.

The marsh was not fully explored until 1962 when it was shown to Dr. J. G. Dony after he had begun work on his flora of Hertfordshire. At that time the marsh was still grazed during summer and autumn and as a result the vegetation was stable and rich in species and showed little change in composition from one year to the next. In June and August 1962 Dr. Dony made habitat studies which were later published in his Flora, and these produced a remarkable list of plants, no less than 56 species in a circular area of no more than 5 yards radius. At least 15 of these would today be considered to be rare or uncommon plants in the two counties. Unhappily because of the cessation of grazing not long afterwards, the subsequent treatment by herbicides and dereliction of the area, this is not the situation today. In a similar sized area it would be difficult now to find half this number of species although most of them can still be found somewhere in the Reserve. Dr. Lloyd-Evans of Ware had accompanied Dr. Dony on his second visit to the marsh and he added two important records, both rare molluscs - *Vertigo moulinsiana* a very local mollusc of calcareous fens and marshes, and *Oxyloma surst*, the Slender Amber Snail which is found elsewhere in the British Isles only in the Norfolk Broads marshes and in the Lea Valley near Broxbourne.

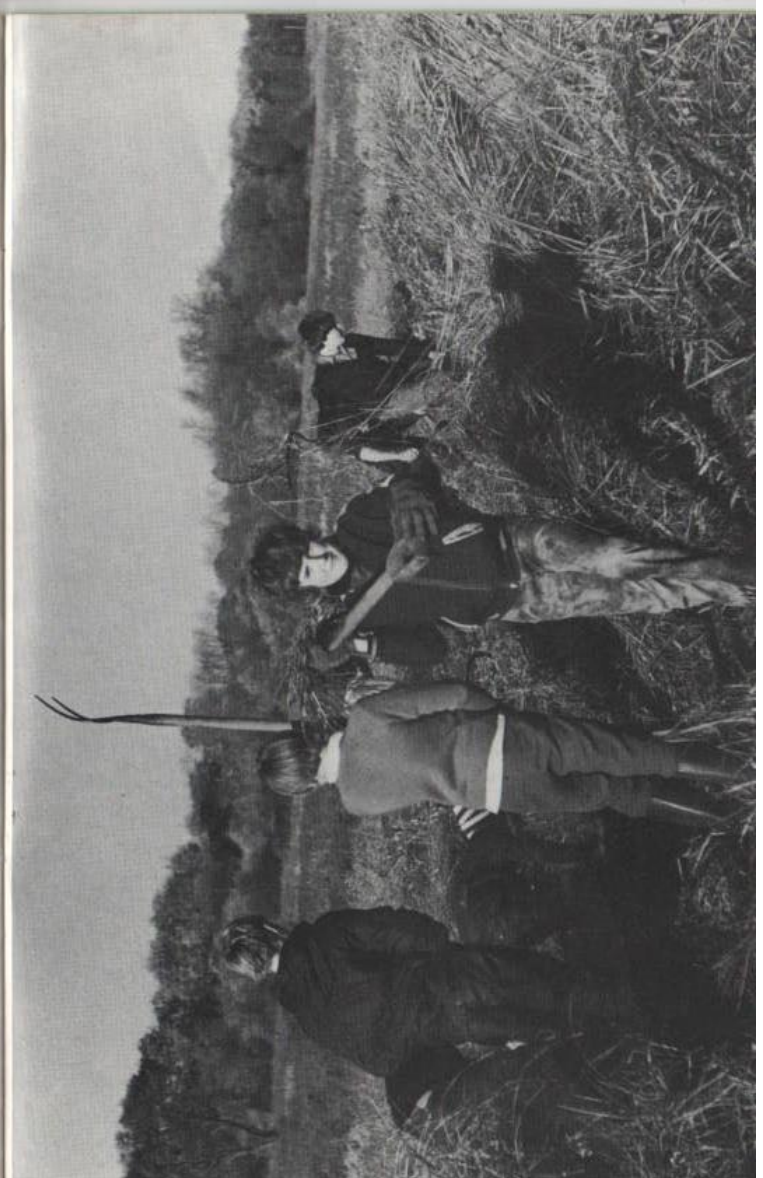
When cattle grazing ceased, two annual hay crops were taken off the meadow which was later sprayed with herbicide to combat the increase of thistles. Then followed a period of neglect in all but two acres which had been enclosed and let for horse grazing, and the marsh became derelict. Succession proceeded apace and the sedges *Carex acutiformis* and *C. riparia* and other rank-growing plants increased greatly and spread up the slope into the meadow at the expense of

the smaller plants which gradually disappeared. Great Hairy Willow-herb colonised large areas of marsh and meadow and Reedmace had arrived and begun to spread. The ungrazed meadow became a jungle 5 to 6 feet high in nettles, thistles, Meadow-Sweet and willow-herb with patches of rushes and coarse sedges in the damper parts, and underneath all a dense mat of dead vegetation. There was little evidence left of the grasses and the great variety of smaller herbs which were recorded by Dr. Dony in 1962. A wide strip along the river bank had become a dense stand of nettles because the River Authority in its wisdom had recently dredged the river and spread the nutrient-rich sludge over a wide area adjacent to the bank.

This was the situation when the Reserve was purchased for the modest sum of £1,000. Because of the virtual disappearance of mixed farming and the decline of stock farming in what was fast becoming an almost completely arable landscape the Reserve offered no attraction for cattle grazing, most of it was too wet for horses, and at the same time many similar areas in the Stort valley were becoming derelict. Even if grazing was possible, the cost of re-fencing the area would have been beyond the Trusts' resources. Other forms of management therefore had to be considered and the only alternatives available were either cutting or burning, or both, to halt the process of succession, to remove the enormous annual crop of dead vegetation and enable the smaller plants to compete and survive. Because of the wetness of the area most of the cutting had to be done by hand and it was clearly impossible to deal with the whole of the 16 acres of meadow and marsh in this way. Selected areas therefore have been managed by cutting, and burning has been carried out in late winter on some of the remainder on a rotational basis when conditions have been favourable. Even so, much has had to be left, and the amount of material that has to be collected, stacked and burned after cutting is tremendous. It is a continual battle to keep the growth of rank vegetation in check, to maintain the pathways and ponds which have been made, to pollard and re-pollard the willows which have invaded the boundary areas, to clean the ditches and waterways, to fight the spread of willow-herb, Reedmace, thistles, nettles and Meadow-Sweet as well as carrying out much needed maintenance of bird hides and nestboxes, etc. and it has never been possible to complete the full programme of work.

However, despite the considerable difficulties, vast improvements have been made, ponds and ditches have been dug, pathways made and many trees and shrubs have been planted to provide much needed shelter along the boundaries. Cowslips and Marsh Marigolds are spreading, Lady's Smock and Ragged Robin are still well in evidence as well as Marsh Orchids, Hemp Agrimony and skullcap, and also some of the rarer plants such as Water Whorl Grass, Marsh Valerian, Marsh Arrow-Grass and Bristle Scirpus can still be found. Each season provides its changing colours, and no less than 220 species of higher plants have been recorded since the reserve was purchased. There are lichens and many mosses, most of the small mammals are resident including Harvest Mice. Foxes are often seen and on one summer evening a vixen and three cubs were observed for some time quite close to a host of young Rabbits which were quietly grazing and apparently undisturbed. Grass Snakes are always present, and lizards, Frogs and Toads are seen occasionally; Kestrels haunt the area, and even Buzzards and Sparrow-Hawks have been observed as well as one vagrant Sarus Crane presumably from the Aubrey Buxton Nature Reserve. Water Rail and Snipe are resident throughout the year and regular summer visitors include Cuckoos

A work party from the Turner School, Cheshunt, clears cut debris from the marsh. Photograph by John Fielding.



and Reed, Sedge, Willow and Grasshopper Warblers. The three woodpeckers regularly visit the Reserve and in winter it has provided a roost for Corn Buntings and a temporary resting place for Meadow Pipit, Stonechat, Whinchat, and Bearded Tits. The mown areas under shallow water and the ditches have provided feeding places for small flocks of Snipe and Jack Snipe in winter as well as Mallard and the occasional Woodcock and other waders. These have also provided fine breeding areas for the spring and autumn blooms of microscopic plants and animals. The Reserve is very rich in insect life which includes at least 4 kinds of dragonfly, many kinds of beetles, most of the common butterflies and many moths including some of the more specialised species such as the Emperor moth, the Small, Fen, Brown-Veined and the Bullrush Wainscots, the Blackneck, Valerian and Slender Pugs. A survey of the macro-lepidoptera is still continuing. A "micro", *Nascia cillalis*, recorded by R. W. J. Uffen and D. J. L. Agassiz was a new record for Hertfordshire.

Recent soil tests have shown that the lower part of the Reserve is situated on a varying depth of blue-grey alluvial clay possibly overlying gravel and with a surface covering of decomposing peat and litter. On the slope of the meadow area the peaty layer is up to 5 feet deep whilst in the marsh the depth of peat and litter is no more than about 8 inches. A sample taken from a layer of peat found beneath the alluvial clay when excavating the Alec Martin pond was found to contain Juniper pollen as well as pollen grains of the *Senecio palustris* type. *Senecio palustris* is a fen plant which is now extinct in the British Isles, and the nearest native Juniper plants today are on Fleam Dyke in Cambridgeshire.

Because of its rich flora and special soil conditions the Reserve area has been scheduled by the Nature Conservancy Council as a Site of Special Scientific Interest. The aims of management are as a first priority to preserve and if possible enhance its rich flora and as a second priority to create and maintain as wide a diversity of habitat as possible to provide suitable conditions for a varied and rich fauna. A further aim is to provide some income for the Trust by making commercial use of the Reserve's natural resources where this does not conflict with the nature conservation interest, for example, by providing grazing areas for horses under strict control, and by planting and selling Cricket-Bat Willows.

Trust members can visit the Reserve at any time, but gumboots are essential and parking is difficult in the road adjacent to the Reserve because it is very narrow and very busy. Dogs should not be taken on the Reserve and visitors are asked to keep the pathways to avoid trampling the vegetation and disturbing ground-nesting birds.

Management is a year round task and not confined to the winter months, and additional helpers for conservation work are always needed. If you would like to help please phone the warden on Bishop's Stortford (0279) 722535.

Reference Dony, J. G. 1967 *Flora of Hertfordshire*. Hitchin, The Museum. Habitat Study 76 (p. 43) gives a list of plants found in Sawbridgeworth Marsh in 1962.

Acknowledgements: R. H. Allen for soil sampling and J. G. Godfree for pollen analysis.

In high summer, shade limits the vegetation growth of brambles, Hogweed and grasses so that edge-of-the-wood plants such as Betony and Nettle-leaved Bellflower among others continue to thrive. Look again in the spring when the sun catches the bank through leafless branches, for signs of a totally different spring woodland flora.

(See article "Roadside Verges" on following page.)





Clearing out the ditch known as the Main Draw, somewhat incongruously measures have been taken in recent years to obstruct the flow of this ditch whose purpose was ostensibly not only to take water from the lake at Hyde Hall but also to help drain the Marsh



The shed constructed from on-site materials for storage of tools. Unfortunately due to vandalism it had to be taken down.

John Fielding standing by the bird hide built by schoolchildren- it has long since disappeared.

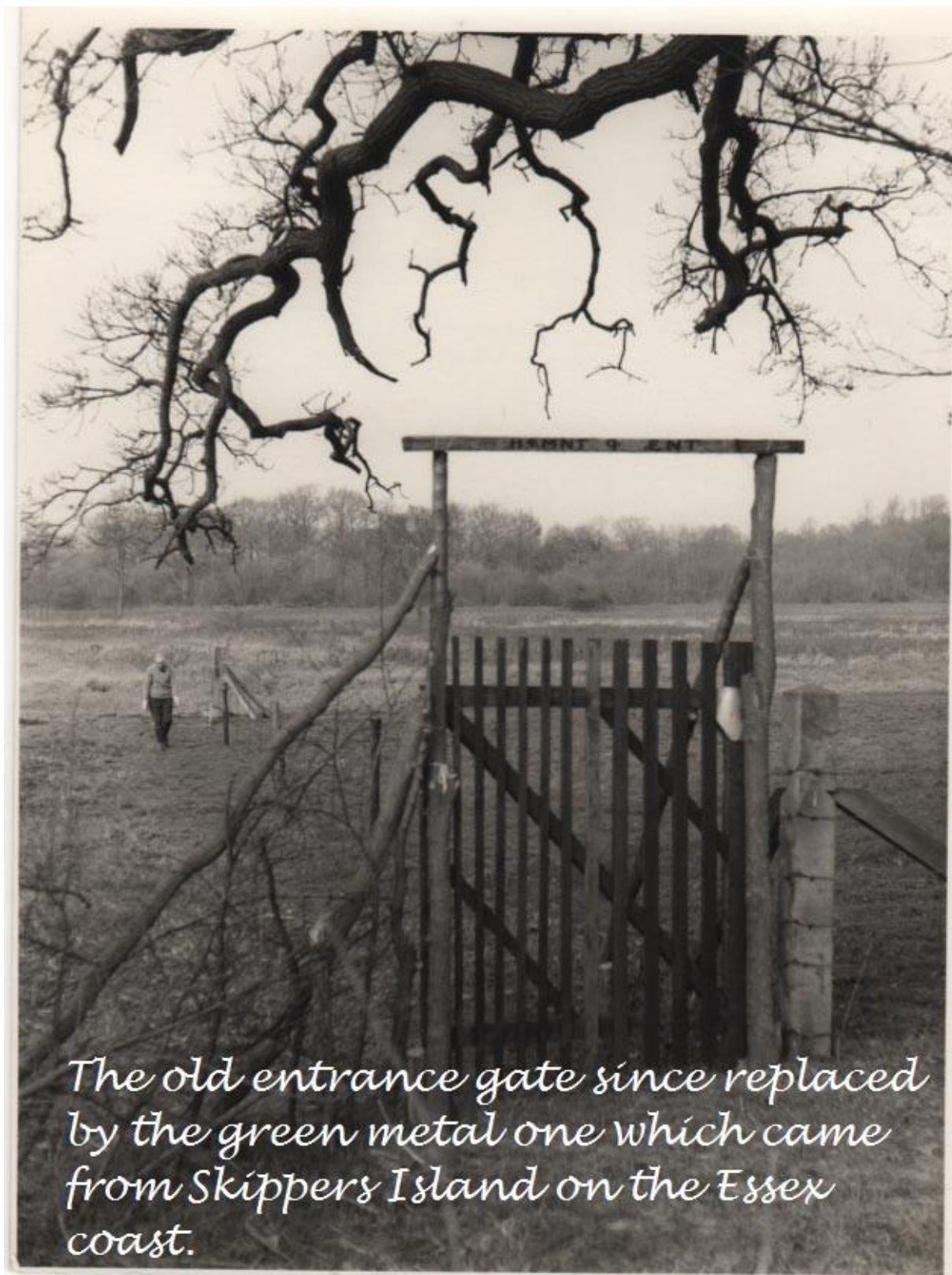


A newly dug pond at the end of the Reserve. This is so overgrown today as to be practically unrecognisable. The path system has also changed.





*A young Shirley Watson with her son by the
hide/toolshed.*



SAWBRIDGEWORTH MARSH

1. ϕ H 7+
8 G 70 M102 Dip NAVICULA CYMBELLA LANCEOLATA
200 μ L
ROTIFERS CAMPYLODISCUS HIBERNICUS 100 μ W (A)
PROTOZOA Dominant genus and mostly covered with many epiphytes
EELWORM GOMPHONEMA & COCCONEIS
CYPRIS
LEMNA MINOR PINNULARIA EPITHEMIA TURGIDA 83 μ L 22 μ L
OSCILLATORIA. SURIRELLA

2. M102
13 G 70 STORT at W. edge of SAWBRIDGEWORTH MARSH. No
ROTIFERS MELOSIRA CLOSTERIUM NAVICULA OEDOGONIUM
CYCLOPS FRAGILARIA CYMBELLA TRIBONEMA SURIRELLA
SYNEDRA SPHAEROCYSTIS TABILLARIA.

3. M103
29 G 70 Dip from water in footprints
ARCELHA NAVICULA NITZSCHIA CAMPYLODISCUS HIB:
LEMNA MINOR in places. OSCILLATORIA SURIRELLA GOMPHONEMA
MELOSIRA VARIANS CYMBELLA LANCEOLATA

4. 30 G 70 Visit during walk.

11. 21 N 70 m106. Day on marsh. Dip of shallows area exposed by cutting N.W. corner post of paddock.
 PROTOZOA NAVICULA spp: CAMPYLODISCUS H18: (A)
 LEMNA MINOR CYMBELLA PINNULARIA GOMPHREMA
 CLOSTERIUM.

12. 26 N 70 morning for photographs.

13. 5 D 70 Planting about 60 trees and bushes

14. 9 D 70 Cutting alms for posts.

15. 26 D 70 Snow - cutting willows.

16. 28 D 70 Cutting willows.

1970 (16)

1971

17
2 J 71 all day. Putting up three notice boards. Snow and frost
Cold and foggy

18
16 J 71 whole day Dip. NAVICULA LINNULARIA EUGLENA spi
m107.
PROTOZOA (A) ROTIFERS. PIRELOHENS CHLAMYDOMONAS CAMPLYLODISCUS.
NEMATODA PARAMECIUM (A)
CYCLOPS CHILODON (A) TUBIFEX

19
23 J 71 too wet in morning. 2-5 erected gate. - very wet.

20
30 J 71 Cutting willows. a wet day.

21
13 F 71 Finished gate. Planted Gullies and spindle
Straightened up bridge
Cut more willows - Dry day.

22
23 F 71 morning. Planted two 5s of Alder Cuttings Pair of Duck
Reed Buntings. Frosty.
m108 Dip NAVICULA CAMPLYLODISCUS GOMPHONEMA
CYCLOPS
SURIRELLA GYROSIGMA

23
27 F 71 whole day. Clearing up willows and burning

24
1 M 71 2pm - 6pm Cutting willows and burning

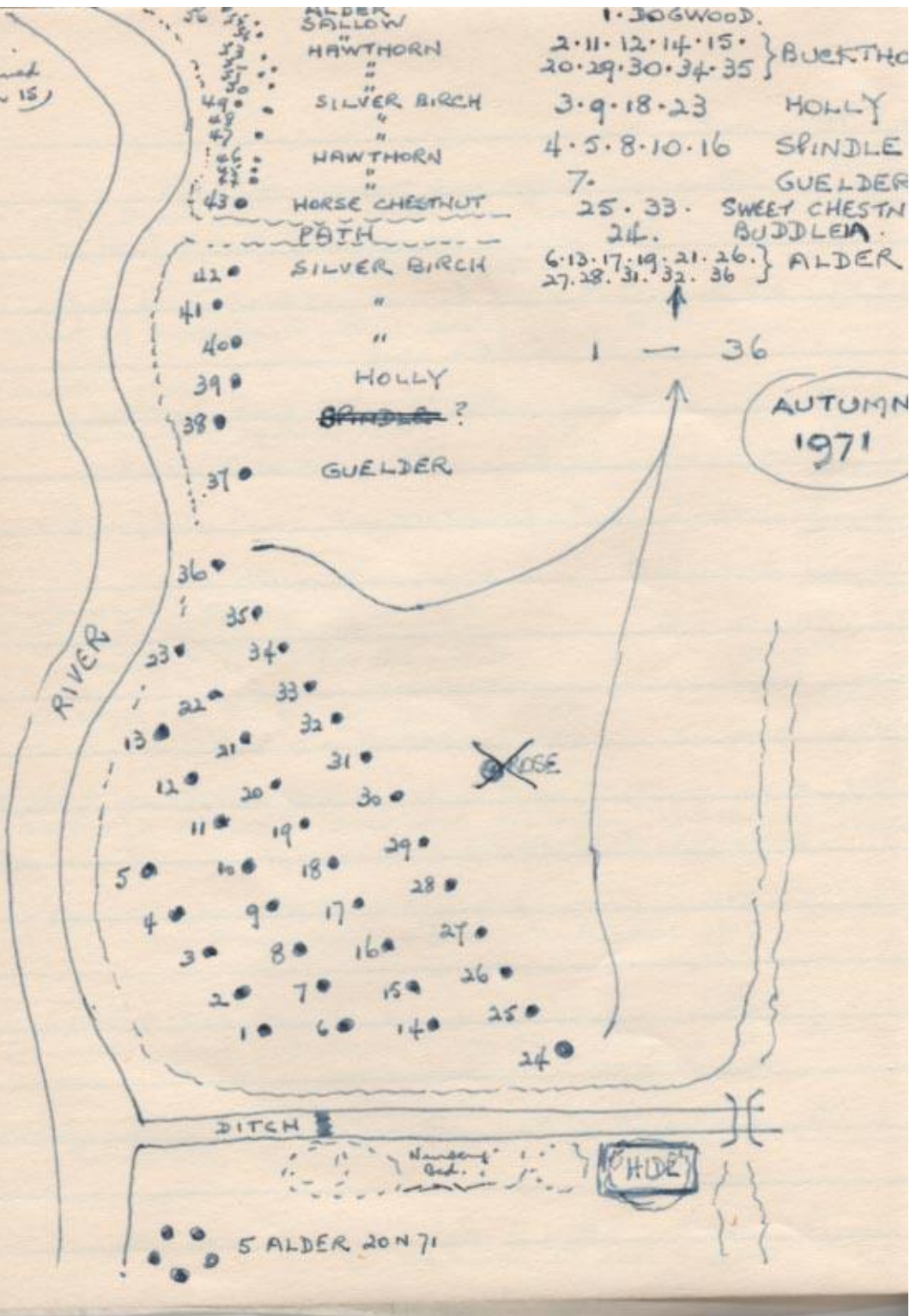
25
7 M 71 Day on marshes. Clearing up willows

1971

- 26
27 M YI all day. clearing up willows.
- 27
3 A YI all day. clearing up willows
- 28
6 A YI 2.30 - 6 clearing up willows Hare Snipe
- 29
8 A YI 2 - 5.30 clearing up willows. Weasel. Duck
- 30
12 A YI all day. Put in dam to ditch Duck Snipe Red Bunting
- 31
15 A YI. Visit by cycle. Dam looking.
- 32
17 A YI Packed mud on Dam. Built a hide nearby.
Tree Creeper. Snipe. Pheasant. Mallard
9 Fieldfares
- 33
20 A YI Burning 3 loads of willow debris magpie Red Bunting
Gold finch Mallard. Willow Warbler
- 34
22 A YI Visit during walk. Willow Warbler Red Bunting Mallard
Tufted Tit. Tree Sparrows Sedge Warblers
Green Robin
m109 Dip. NAVICULA.
- 35
8 Y YI all day. Hot and sunny Cutting Sedge
many Sedge Warblers Red Bunting
Tree Sparrows. Willow Warblers Duck Cuckoo

12)

Continued on 15)



1971

48

2 G Y pm to cut overhanging ash tree N end of paddock cut off reachable boughs and cut through ivy

49

7 G Y Cutting rushes. Quite a lot of water after heavy rain.

50

14 G Y Cutting nettles & willow herb, area by river. site for trees
1 scribe a few Sedge W etc

51

28 G Y Cutting along path in willow wood and along ditch to dam
Many Goldfinches - thistles Kingfisher
Absence of birds in marsh and wood

52

4 S Y Raking & Burning. Cutting hush

53

14 S Y all day. Preparing circles for trees

54

18 S Y all day. Cutting nettles and preparing holes for trees
Hot sunny day. Duck Goldfinches Reed Buntings
Robin Wren Moorhens

55

25 S Y Cutting nettles and finishing planted trees
Kingfisher within 15 feet whilst having lunch. Caught two fish in two ditches. Staged on the perch for about five minutes

56

26 S Y Visit.

57

21 T Y pm. Planted three Hollies and rose also 2 grafts of small
m 113 Dip North end Spring in Phragmites - almost sterile
PROTOZOA (A) small crustaceans. Roundworm. NAVICULA 25 yds S of III

58

23 T Y all day. Cutting nettles and rush. Burning previous cut
Much of the cut part of the actual marsh mud covered with
film of algae in 1-2 inches of water. ⚠

LEMNA MINOR m 113

PROTOZOA (A) VAUCHARIA (A) in the germinating zoospores. Covered with epiphy
CYCLOPS GOMPHONEMA, SURIRELLA NAVICULA spp. CYMBELLA
VORTICELLA (F) SYNEDRA OEDOGONIUM, CHLAMYDOMONAS
ROTIFERS CHOSTERIUM PINNULARIA EUGLENA EPITHEMIA
MEKOSIRA HANTZSCHIA CAMPYLODISCUS

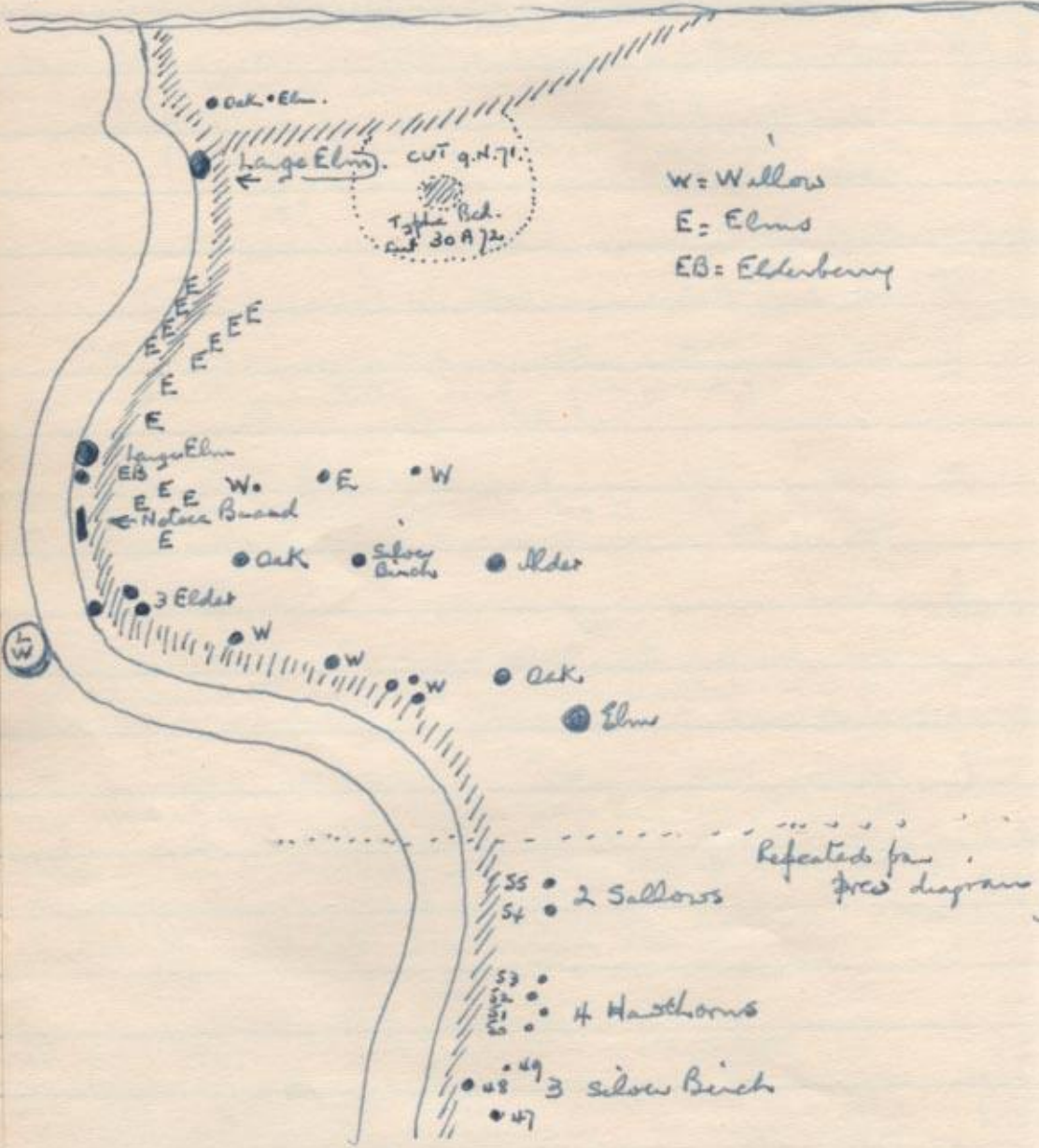
59

30 T Y all day. Planting shrubs & trees. Cutting & raking
Dead mole on path. Kingfisher across marsh twice ⚠

PROTOZOA
ROUND WORMS
EEL WORMS
ROTIFERS

Algae bloom on surface of parts of marshes APHANIZOEME
SURIRELLA EPITHEMIA NAVICULA PINNULARIA (A) F-
CAMPYLODISCUS HIG: OEDOGONIUM EUGLENA MOUGEOTIA
COCCONEIS

15)



1971

Cracked Scythe blade.

- 60 7:30 a.m. - 11:30 No rabbits. Damp. Cutting Sedge & making up paths.
 2 N Y I 8 Plover flew over also 6 swans. 2 Snipe up from nearby.
- 61 all day. Skated Bunnies & Sweet Chestnuts. Put up five bird boxes.
 6 N Y I Cutting sedge - large area of water exposed - six water.
- 62 7 - 2:45 fenced off Nursery bed. thinned more & lost years planting of trees.
 9 N Y I cutting large north of 1st - near new path way seen river. blue area.
 Kingfisher 3 Snipe Kestrel Cut spots for 5 Alders 5 of Ditch.
- 63 Bloom on mud at III CHLAMYDOMONAS (A) EUGLENA SYNURA
 PROTOZOA. PHACUS. CHOSTERIU. NAVICULA.
 13 N Y I 10-30 - 3-30 Cutting Willows. Markers in March I II & III
 Jack Snipe. Bearded Tits. ± 50 Com Buntings (one found dead) Fieldfare.
 Dip from III DRAPARNALDIA EUGLENA NAVICULA. φH 7.3
 PROTOZOA. PARAMECIU. CYPRUS. CYCLOSTH.L. ROTIFERS
- 64 16 N Y I 8:45 - 11:30 Cutting Willows. Two birds Green larks on the
 Fieldfare. stems of equisetum
 Dip at II Blue-green scum in surface & yellow-green scum with bubbles φH 7.
 PROTOZOA. EELWORMS SPIROSYRA. OEDOGONIUM. JURIRELLA. NAVICULA
 ROTIFERS large NEMATODE HORMIDIUM. PINNULARIA. GOMPHONEMA. CYMBELLA. SYMUR
 ACTINOPHYXIS FLATWORMS NAUTIZSCHIA. CHOSTERIU. VAUCHARIA. CAMPHYLOBISCUS
 SOL. CHARACTIU.
- 65 10 am. with J.F. collected 4 Alders to plant in Hatfield Forest. But at 3.15 to
 20 N Y I plant 17 Alders to complete area N of ditch (55 of ditch) if planted out, birds etc by hedge
- 66 LTT into Robin & 4 Blackbirds Fieldfare
 27 N Y I 10-3 Cutting Willows - damp & dull. 5 Swans flew over
- 67 Robin. Sea Finch. Fieldfare
 30 N Y I 9:30 - 11:30 Planted 3 Alders NW corner Cutting Willows thin ice
 Kingfisher
- 68 side green on mud at III Dull but dry
 4 D Y I 10 - 3 Cutting Willows Planted two Hawthorns by lodge. Wrens but other birds ok
- 69 7. D. Y I 9 - 11:30 Cutting Willows. Dizzly. Not much bird life.
- 70 Burred circling high over marsh wrens Snipe
 11. D. Y I 10 - 3 Cutting Willows Dry. Robin Fieldfare Red black wood I & II + W. M114.
- 71 14 D Y I 9 - 11:30 Cutting Willows Dry mild. L.T. Tits.
- 72 18 D Y I 10 - 2:30 Cut down the last of this batch of willows Dull, sun later
- 73 Pleasant clearing wind wood E of reserve. Jws. at least, planned down
 24 D Y I. Visit A.M. into the reserve. One ♀ found dead. 1 Snipe 1 Jack Snipe
- 74 Snipe Jack Snipe Bearded Tits
 27 D Y I 10 - 2:30 Clearing up willows Bright mild. Robin Fieldfare Wrens. Junco

1971

58

MARSH IN DANGER?

NATURALISTS OPPOSE GRAVEL WORKING PLAN

EXCAVATION of gravel on a site at Little Hallingbury would almost certainly cause Sawbridgeworth Marsh—a nature reserve well known as the home of rare species—to dry out, it was stated at a public inquiry last week.

At the three-day planning inquiry, at Little Hallingbury village hall, conservation interests, representing more than 160 local people, Uttlesford Council and Essex County Council opposed an application from W. E. Greenall and Sons Ltd to extend their gravel workings at South House Farm, Little Hallingbury.

The application had been refused by Essex County Council and the inquiry was into the company's appeal against the refusal.

Mr Colin Edward Ranson, deputy regional officer of the Nature Conservancy Council told the inquiry: "By excavating gravel from the appeal site a gradient down from the northern end of the marsh to the pit will be created.

"This will almost certainly cause the marsh to dry out and reduce the value of the site as a nature reserve.

"While assurances may be given that this is unlikely, we know of no evidence confirming that it will not happen," Mr Ranson said. There were no water measurements available and in the absence of this he felt it likely there would be damage to the marsh.

The inspector conducting the inquiry, Mr Eric Booth, felt it was important to know this and also asked for details of the direction of natural drainage.

Mr Brian Watts, field officer of the Essex Naturalists' Trust which, with the

for Nature Conservation, are joint owners of the 23 acres of Sawbridgeworth Nature Reserve, opposed the planning application.

Of the marsh he said: "It is one of the finest remaining areas of fen and marshland in the counties of Hertfordshire and Essex and it contains a remarkable variety of plant and animal life including a number of species which are either very rare or rapidly disappearing."

There had been two other marshes in this part of Essex. One at Harlow was drained earlier this year, and a small Essex Naturalists' Trust nature reserve on lease in Hatfield Forest was threatened by the raising of the water level for boating purposes.

The marsh, Mr Watts continued, was an important resting place for birds of passage and two rare snails found nowhere else in Essex. It was the only site of a rare moth in the county.

A radical disturbance of the surrounding area could have a damaging effect. The proposal would bring gravel working to within 155 yards of the reserve boundary.

Excavation might have an effect upon the water levels of the marsh, causing alterations to habitat and disappearance of species of plants, birds and animals. It was vital that springs were not affected.

Honorary warden of the Sawbridgeworth Marsh Nature Reserve, Mr John Fielding, told the inquiry: "To ensure the survival of the rich and diverse flora and fauna in the approximately 45 acres of fen and marshland which the reserve contains, it is vital that the present ground-water supply is not interrupted or

Even a small change in the water regime could adversely affect certain plant and animal species, said Mr Fielding, who is chairman of the Essex Naturalists' Trust's Scientific Committee, a member of the Scientific Advisory Committee of the Hertfordshire and Middlesex Trust for Nature Conservation, and a member of the Botanical Society of the British Isles.

The water-table was the fundamental source of water supply, said Mr Fielding. Apart from the danger to the survival of the marsh as a viable wetland habitat the gravel extraction would cause further disturbance, said Mr Fielding.

It would destroy the view for the northern boundary of the reserve and would create further danger to visitors to the reserve, particularly young children who had to approach the entrance along a narrow lane with no footpath, and where two lorries could not pass without mounting the verges, added Mr Fielding.

A senior officer of Essex County Council's minerals section, Mr H. J. Nichol, said Uttlesford Council had objected strongly on the grounds that there would be a marked detrimental effect, both visually and from the highway point of view.

Little Hallingbury Parish Council, he reported, had raised no objection but had suggested a new access. Little Hallingbury Preservation Society had objected on restoration and traffic grounds.

In addition there had been 11 individual letters of objection and also one representing a number of objectors. Their reasons included loss of amenity

road and noise. A petition had been received signed by 158 local residents also objecting.

The Essex Naturalists' Trust and the Nature Conservancy Council had also objected. Essex County Council had refused permission on traffic grounds and that it would result in undue disturbance and visual detriment to the pleasant rural character of the area.

Deputy director of planning for Uttlesford Council, Mr John Grayson, said the council recommended refusal because of the impact of traffic on local residents and road users, effect on the landscape and the unsatisfactory state of restoration at the existing site.

Objector Mr J. P. Farrell, whose home, Broadcroft, is opposite the appeal site, said dust levels would become intolerable. It had already proved impossible to keep the lane free from mud and he objected on road danger, noise and vibration grounds.

"The village of Little Hallingbury has had to endure gravel extraction from this site for many years," he said. "The time has come to say enough is enough."

Mr Alec Tee, a solicitor representing five local families, told the inquiry that the extension to the gravel workings would cause undue disturbance, visual detriment and would be a traffic hazard.

Mr J. Leonard, solicitor representing the appellant company, said that the area of the appeal site was rich in mineral deposits. It was a very high concentrate of good quality deposits that



Inspector Mr Eric Booth (wearing a hat in our picture) gets a little air after three days conducting the Hallingbury inquiry and visits Sawbridgeworth nature reserve. Essex Naturalists' Trust field officer, Mr Brian Watts, is explaining a location on the map.

average yield of gravel extraction in the region.

A partner in a firm of local chartered surveyors, auctioneers and estate agents, Mr Timothy Trembath, for the appellants, told the inquiry that if the appeal was allowed the company would make a new access to the site away from the two sharp bends in the road.

"The environmental objections to this proposed development do not, in view of the temporary use of the site, outweigh the economic importance being placed on the diminishing

reserves of minerals in the south east," said Mr Trembath.

"The access road is adequate for the proposed traffic and there will be no danger to water supplies, archaeological sites of importance or features of natural history."

He added that there had been only one complaint about noise—a squeaky excavator—in recent years. There was no intention of further extending the present appeal site, said Mr Trembath.

He said lorries both laden and unladen would

be routed southward on to the A414. He agreed workings would come within 150 feet of the western boundary of the lane.

A geologist for the appellants said he could not see the proposed excavation—which would not go below the water table—having any effect upon the marsh.

The inquiry was also told that the appeal site was grade four land and there was no objection on agricultural grounds.

The result of the inquiry will be announced later.