CLEVELAND NATURALISTS'

FIELD CLUB

RECORD OF PROCEEDINGS

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CLEVELAND NATURALISTS' FIELD CLUB

112TH SESSION 1992-93

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In the last issue of the Proceedings (1991) a new field study group within the Club was announced. This group has made substantial progress since then. The work carried out may be summarised as follows.

1.A start has been made on building three databases for flora, fungi and lepidoptera of Cleveland. These databases reside on computer and document findings of the group (and others.) in these major areas.

2.Information gathering and analysis is being carried out on industrial sites in Cleveland.

3.The flora of Saltburn Valley Gardens has been established, with a classification of the habitat, into zones.

3.A flora for Clarkson's Wood has been established.

4.A preliminary survey of Eston Moor is complete. Detailed survey work will follow.

5.A fungus flora of Burn Wood has been, established and work is going on covering other groups.

6.A flora for Guisborough Walkway has been established.

7.A Bryological flora for Cleveland has been established.

Highlights of the 1991 Field Meetings

An evening walk took place on Wednesday May 22 1991 to the banks of the Tees at Thornaby where the prime interest was in the flora of this tidal stretch.of the river. Plants noted on the immediate banks, where tidal mud is exposed at low water, were Common Scurvy Grass (*Cochiearia officinalis*), Sea Beet (*Beta maritima*), Sea Plantain (*Plantago maritima*), Grass Leaved Orache (*Atriplex littoralis*), Sea Mayweed ,(*Matricaria maritima*) and Sea Club Rush (*Scirpus maritimus*). Other plants of interest on either side of the track were Soapwort (*Saponaria officinalis*), Crow Garlic (*Allium vineale*), Sand Leek (*Allium scorodoprasum*) , Hoary Ragwort (*Senecio erucifolius*), Whitlow Grass (*Erophila verna*), Eastern Rocket (*Sisymbrium orientale*), Hoary Cress (*Cardaria draba*), Greater Burnet (*Sanguisorba officinalis*) and Hairy Oat Grass (*Avenula*. *pubescens*). Moths seen at this meeting- *Incurvia masculella*, and Lund's Roller (*Ancylis badiana*)

The Howls, Dalton Piercy, Wednesday evening June 12th 1991 The Field Club was shown the newly acquired Cleveland Wildlife Trust Reserve by Russell McAndrew, Chairman of the Management Committee. The reserve comprises about 20 acres of steep sided secluded ravine woodland and is situated between Dalton Piercy and Elwick. Many feet below the surface lies Magnesian Limestone. A stream runs through the wood and, due to the heavy canopy, very little light penetrates the woodland floor, giving rise to a very rich fern and bryophyte flora. Hard Shield Fern (*Dryopteris aculeatum*) was found here- this is not common in Cleveland. Early Purple Orchids *(Orchia aascula*) were much in, evidence on the upper slopes and, in one place **,** a large colony of Twayblade (*Listera ovata*). Butterbur (*Petasites hybridum*) was abundant in an open area near the stream along with large stands of Flag Iris (*Iris pseudacorus*). Moths seen at this meeting- Gold Swift (*Hepialus hecta*), and Common Swift (*Hepialus lupulinus*).

Another Wednesday evening walk was led by Joan Bradbury to North Gare on June 26th 1991. Ian Lawrence organised a search party to find a white crucifer which had been seen recently by a party visiting the area and which had not been identified. A small colony was discovered amongst long grass and was recognised by Ian as *Arabis aronosa* (Sand Cress), which he had seen in France some years ago. This has been subsequently confirmed by Tim Rich the crucifer expert, as a fourth record for the British Isles.

On Sunday the 14th of July the Field Club spent a full day at Skinningrove led by Mrs Pat Wood. Several of Cleveland's less common plants were seen including the Danish Scurvy Grass (*Cochlearia danica*) which was still flowering on the jetty wall. This plant was discovered a year ago and is a rare record for the North-East coast. Sea Pearlwort (*Sagina maritima*) was also seen nearby- another rare record for the area. A new county record or Greater Burnet Saxifrage (*Pimpinelia major*), was seen by, one of the cliff paths, only previously known from Yarm. This is a calcicole plant, which is a feature of the Magnesian Limestone flora of the Ripon area. A meadow on

the cliff-top was visited where Pyramidal orchids (*Anacamptis pyramidalis*) were growing in profusion amongst a large colony of Kidney Vetch (*Anthyllis vulneraria*). Other interesting plants growing along the cliff top were Bristly Ox-tongue (*Picris echioides*) **,** Slender-headed Thistle (*Carduus tenuiflorus*), Dyers Greenweed (*Genista tinctoria*), and Common Dropwort (*Filipendula vulgaris*). Alex Weir was pleased to find a rust on Kidney Vetch on the steep hillside near to the stands of Broad-leaved Everlasting Pea (*Lathyrus latifolius*). Moths seen at this meeting-Large quantities of newly emerged Burnet moths (probably 5-spot *ab. palustrella,* and Narrow Bordered), Shaded Broad Bar (*Scotopteryx* c*henopodiata*) **,** and Latticed Heath (*Semiothisa clathrata clathrata*).

On the morning of Sunday September 15th 1991, Darroll Fryer led a party onto the North Gare Breakwater. The following birds were noted- Bar tailed Godwit, Oyster Catcher, Sanderling, Redshank., Artic Skua, Cormorant, Turnstone, Sandwich Tern and immature Common/Arctic terns. Moths seen at this meeting- Silver Y (*Autographa gamma*).

A meeting was held at Pinchinthorpe station on July 3rd 1991 where the following moths were noted- Flame Carpet (*Xanthorhoe designata*), Silver Ground Carpet (*Xanthorhoe montanata montanata*), Clouded Border (*Lomaspilis marginata*), Latticed Heath (*Semiothisa clathrata clathrata*)., Stigmillaria sp*.,* Chimney Sweep (*Odezia atrata*) **,** and Gold Swift (*Hepialus hecta*).

Notable birds observed. - M. Hallam

Aisalby Banks (28/4/91)
Sparrow-hawk; Chiff-chaff, Blackcap, Sand-Martin, Goosander. Also an abandoned Long-Tailed Tit nest.
Nettledale (4/5/91)
Tufted Duck, Canada Goose, Blackcap, Chiff-chaff, Woodcock, Nuthatch, Wryneck
Moorsholm Mill (26/5/91)
Greater Spotted Woodpecker, Treecreeper and nest, Whitethroat
Swainby (1/6/91)
Redpoll, Blackcap, Treecreeper, Crossbill,
Guisborough Branch Walkway (3/7/91)
Sparrowhawk, Whitethroat
Eston Hills (25/8/91)
Whitethroat, Willow Tit

Eston Moor

Eston Moor is the name for the moorland which forms the top of Eston Hills (O.S.. Map Refs. 1Km. Squares- NZ5617 5717 5616 5617 5618 5718). The Eston Hills dominate the estuary of the Tees overlooking the conurbation generally (and formerly) known as Teesside. The hills rise steeply from 40 metres above sea-level to 242 metres on the Southern margin of Teesside to form a North facing escarpment which slopes gently away to the South. A significant area,

approximately 1.5 square kilometres, of the hill and Northern slope is covered by Eston Moor. The rest of the area is mostly woodland or agricultural land. Eston Hills are composed mostly of Lower Jurassic shales, sandstones, and ironstones with a cap of Middle Jurassic deltaic sandstone. The major Lower Jurassic ironstone beds can be recognised by the remains of significant disused drift mines and associated buildings. These are situated roughly half way up the steeply rising Northerly slopes of the hills. The summit is marked by North facing crags of Middle Jurassic sandstone. The strata dips gently, at about 15 degrees, in a Southerly direction matching the slope of the hill in that direction i.e. the tail of the escarpment. Much of the Northerly slopes and small parts of the moor is covered by spoil tips from mining activity.

Bryophyte Survey

The Bryophytes listed below are the product of three short visits to Eston Moor in 1991. The results must be considered as no more than preliminary.

Habitats visited included a Birch wood, an adjacent marsh, open moorland areas and Moordale Bog with adjoining shale heaps.

A total of 31 species was recorded. The list contains no rarities but four Sphagnum species have been identified. The four commoner *Polytrichum* mosses are growing on the moor. One interesting record is the tiny liverwort *Cephaloziella divaricata*, my first record for Cleveland. A second record of a *Cephaloziella* species earlier this year on nearby Lazenby Bank was unconfirmed as it was not in fruit.

No epiphytes were found on the Birch trees but several species were growing on rotting logs and stumps in the wood, including *Bryum flaccidum* which has axillary filamentous gemmae.

The results so far were predictable but it will be interesting to compare findings on this isolated moor with records for the more extensive moorland to the South, particularly Gisborough Moor.

Musci

Amblystegium serpens
Aulacomnium palustre
Brachythecium albicans
Brachythecium rutabulum
Bryum argontoum
Bryum flaccidum
Campylopus introfloxus
Campylopus pyriformis
Ceratodon purpureus
Dicranella heteromalla
Eurhynchium praelongum
Hypnum cupressiforme cupressiforme
Hypnunt jutlandicum
Orthodontium lineare
Plagiothecium curvifolium

Plagiothecium denticulatum
Pohlia nutans
Polytrichum commune
Polytrichum formosum
Polytrichum juniperum
Polytrichum piliferum
Pseudoscleropodium purum
Rhytidiadelphus squarrosus
Sphagnum auriculatum var. auriculatum
Sphagnum fimbriatum
Sphagnum palustre
Sphagnum recurvum
Tortula muralis

Hepaticae

Calypogeia muelleriana
Cephalozia bicuspidata
Cephalozielia divaricata
Gymnocolea inflata
Lophocolea bidentata
Lophocolea heterophylla
Marchantia polymorpha

John Blackburn

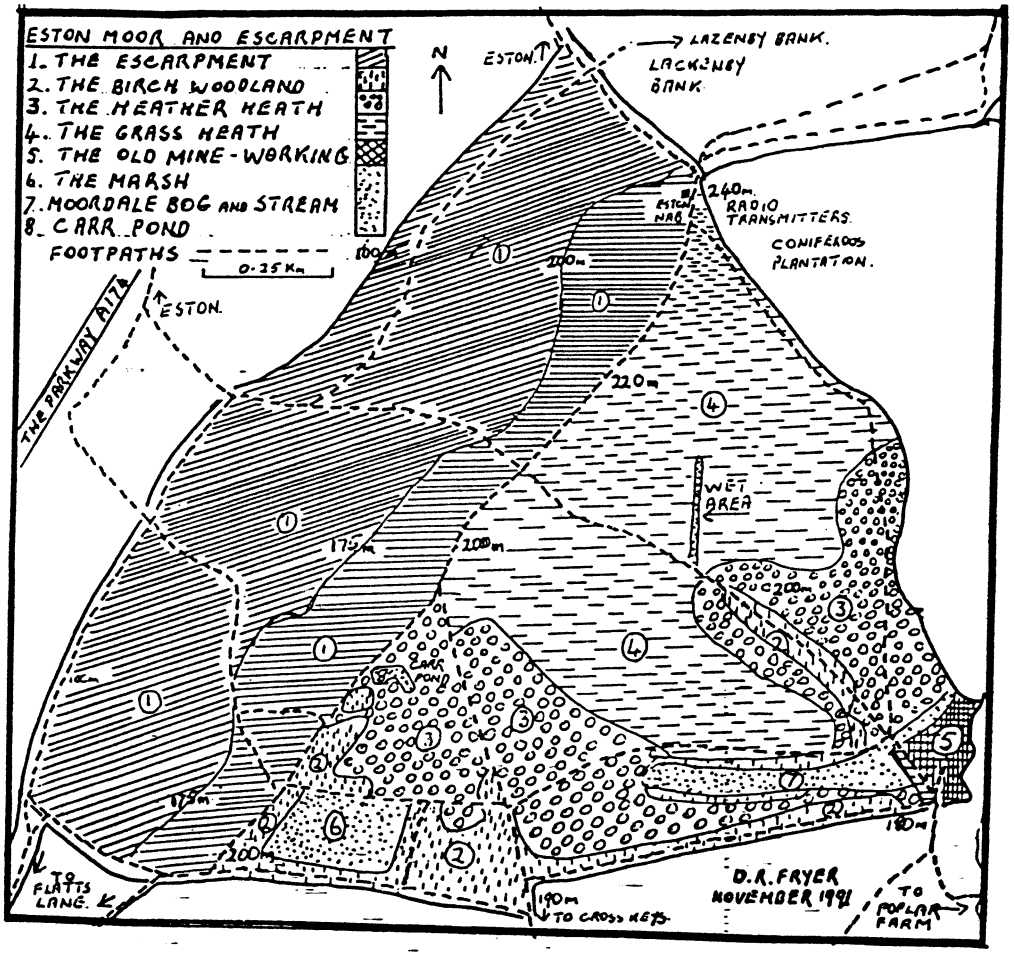
The Vascular Plants of Eston Moor and Escarpment

A preliminary survey of the species present was made during July and August 1991. A further survey will be made during the Spring and Summer of 1992 to give a more complete listing. For the survey the Moor was divided into eight areas as listed below. There is no specific line of demarcation between the areas and there is an obvious succession as species have dispersed between adjacent sites. The soil pH was determined at different sites in each area using a Rapitest meter. Mean value has been calculated from nine pH determinations.

The frequency of occurrence of each species in each area is given in accordance with the key that follows.

R	Rare
O	Occasional
F	Frequent
A	Abundant
L	Local within the area

Areas Recorded	Number of Species	Mean pH of Soil
The Escarpment	69	6.4
The Birch Woodland	42	6.3
The Heather Heath	18	6.0
The Grass Heath	45	6.5
The Old Mine-working	66	6.9
The Wet Areas:Carr Pond	13	5.8
The Marsh	28	6.1
Moordale Bog & Stream	63	5.3



• The Escarpment

This large, exposed area faces north-east. It is the site of previous ironstone mine-workings and although much marked by bike tracks it is now, save for the construction of a ski-slope, very largely undisturbed by man. The dominant species is bracken, (*Pteridium aquilinum*) but there are sections where birch, (*Betula*), or

gorse, (*Ulex europaeus*), is a very frequent species. Towards the top of the escarpment Ling, (*Calluna vulgaris*), and Tufted Hair-grass, (*Deschampsia cespitosa*), populate significant areas of the escarpment. The pH of the soil varies between 5.9 & 6.7; a considerable variation that will influence the growth of some species at certain sites.

Frequency		
O	*Acer pseudoplatanus*	Sycamore
O	*Achillea millefolium*	Yarrow, Milfoil
R	*Achillea ptarmica*	Sneezewort
P	*Agrostis capillaris*	Common Bent
O	*Agrostis stolonifera*	Creeping Bent
O	*Angelica sylvestris*	Wild Angelica
F	*Anthoxanthum odoratum*	Sweet Vernal-grass
O	*Arrhenatherum elatius*	False Oat-grass
FL	*Calluna vulgaris*	Ling
H	*Campanula rotundifolia*	Harebell
O	*Carex binervis*	Ribbed Sedge
Q	*Cerastium fontanum*	Common Mouse Ear
F	*Chamerion angustifolium*	Rose-bay Willow-herb
P	*Cirsium arvense*	Creeping Thistle
O	*Cirsium palustre*	Marsh Thistle
O	*Cirsium vulgare*	Spear Thistle
O	*Conopodium majus*	Pignut, Earthnut
O	*Crataegus monogyna*	Hawthorn
O	*Dactylls glomornta*	Cock’s Foot Grass
FL	*Deschampsia cospitosa*	Tufted Hair-grass
FL	*Deschampsia flexuosa*	Wavy Hair-grass
O	*Epilobium montanum*	Broad-leaved Willow-herb
OL	*Erica cinerea*	Bell -heather
O	*Festuca rubra*	Red Fescue
•	*Fraxinus excelsior*	Ash
FL	*Galium saxatile*	Heath Bedstraw
O	*Heracleum sphondylium*	Hogweed
O	*Flieracium vagum*	Shrubby Hawkweed
O	*Hieracium vulgatum*	Common Hawkweed
O	*Holcus lanatus*	Yorkshire Fog
O	*HoIcus mollis*	Creeping Soft-grass
F	*Hypochaeris radicata*	Cat’s Ear
OL	*Juncus acutiflorus*	Sharp-flowered flush
FL	*Juncus effusus*	Soft Rush
O	*Juncus squarrosus*	Heath Rush
O	*Leontodon autumnalis*	Autumnal Hawkbit
FL	*Lolium perenne ssp.perenne*	Rye-grass
O	*Lonicera periclymenum*	Honeysuckle
O	*Luzula multiflora*	Many-headed Woodrush

O	*Matricaria matricarioides*	Pineapple Mayweed
FL	*Nardus stricta*	Mat - grass
O	*Phleum pratense ssp.pratense*	Timothy
OL	*Plantago lanceolata*	Ribwort
OL	*Plantago major*	Rat-tail Plantain
O	*Poa annua spp.aviculare*	Annual Meadow Grass
O	*Polygonum aviculare*	Knotgrass
F	*Potentilla erecta*	Tormentil
A	*Pteridium aquilinum*	Bracken
O	*Quercus petraea*	Sessile, (Durmast) Oak
O	*Quercus robur*	Common, (Pedunculate) Oak
FL	*Ranunculus repens*	Creeping Buttercup
O	*Rosa canina*	Dog Rose
P	*Rubus fruticosus*	Bramble
O	*Rumex acetosa*	Common Sorrel
O	*Runiex acetosella*	Sheep's Sorrel
O	*Rumex obtusifolius*	Broad-leaved Dock
O	*Salix caprea*	Great Sallow
	Salix cinerea	Common Sallow
O	*Sambucus nigra*	Elder
O	*Senecio jacobaea*	Ragwort
O	*Senecio sylvaticus*	Wood Groundsel
R	*Sorbus sp.*	Whitebeam
O	*Sorbus aucuparia*	Rowan, Mountain Ash
OL	*Stachys sylvatica*	Hedge Woundwort
OL	*Stellaria holostea*	Greater Stitchwort
OL	*Stellaria media*	Chickweed
OL	*Taraxacum officinale*	Dandelion
OL	*Teucrium scorodonia*	Wood Sage
F	*Ulex europaeus*	Gorse

The Birch Woodland

Areas of birch woodland occur at a number of sites on the moor. - The thin canopy that they provide allows the growth of other plants beneath them. Some of the woodland has been damaged by fire and strong winds but the woodland is recovering and spreading. This gives sectors that are very open with scattered and small trees. The soil pH ranges from 5.8 to 6.6.

Frequency		
F	*Agrostis capillaries*	Common Bent
O	*Anthoxanthum odoratum*	Sweet Vernal grass
OL	*Antbriscus sylvestris*	Cow Parsley
OL	*Arrhenatherum elatius*	False Oat-grass

R	*Athyrium filix-femina*	Lady-fern
F	*Betula hybrid*	Birch
F	*Betula pendula -*	Silver Birch
F	*Betula pubescens*	Downy Birch
F	*Calluna vulgaris*	Ling
OL	*Carex binervis*	Ribbed Sedge
FL	*Chamerion angustifolium*	Rose-bay Willow-herb.
FL	*Deschampsia cespitosa*	Tufted Hair-grass
FL	*Deschampsia flexuosa*	Wavy Hair-grass
O	*Dryopteris dilatata*	Broad Buckler Fern
O	*Dryopteris filix-mas*	Male Fern
O	*Erica cinerea*	Bell -heather
OL	*Erica tetralix*	Cross-leaved -Heath
O	*Festuca rubra*	Red Fescue
F	*Galiurn saxatile*	Heath Bedstraw
O	*Hieracium sabaudum*	Leafy Hawkweed
FL	*Holcus lanatus*	Yorkshire Fog
FL	*Holcus mollis*	Creeping Soft-grass
F	*Hypochaeris radicata*	Cat's Ear
OL	*Juncus acutiflorus*	Sharp-flowered Rush
OL	*Juncus effusus*	Soft Rush
OL	*Juncus squarrosus*	Heath Rush
R	*Lonicera periclymenum*	Honeysuckle
OL	*Luzula- multiflora*	Many-headed Woodrush
OL	*Molinia caerulea*	Purple Moor-grass
FL	*Nardus stricta*	Mat-grass
R	*Pedicularis sylvatica*	Lousewort
R	*Pinus sylvestris*	Scots Pine
F	*Potentilla erecta*	Tormentil
FL	*Pteridium aquilinum*	Bracken
O	*Quercus robur*	Common (Pedunculate) Oak
O	*Rubus fruticosus*	Bramble
O	*Rumex acetosa*	Common Sorrel
FL	*Rumex acetsosella*	Sheep's Sorrel
OL	*Salix cinerea*	Common Sallow
O	*Senecio sylvaticus*	Wood Groundsel
O	*Sorbus aucuparia*	Rowan, Mountain Ash
O	*Ulex europaeus.*	Gorse
F	*Vaccinium myrtillus*	Bilberry

The Heather Heath

These areas where the dominant plant is Ling, *Calluna vulgaris*, are less extensive than the grass heath. In many places the ling provides a dense cover; relatively few other species are present. The pH ranges from 5.5 to 6.5 in different areas of the heather heath.

Frequency		
O	*Anthoxanthum odoratum*	Sweet Vernal-grass
O	*Betula hybrid*	Birch
A	*Calluna vulgaris*	Ling
O	*Carex binervis*	Ribbed Sedge
FL	*Chaznerion angustifolium*	Rose-bay Willow-herb
F	*Deschampsia flexuosa*	Wavy Hair-grass
AL	*Erica cinerea*	Bell-heather
F	*Galium saxatilc*	Heath Bedstraw
O	*Holcus lanatus*	Yorkshire Fog
O	*Hypochaeris radicata*	Cat's Ear
O	*Juncus squarrosus*	Heath Rush
O	*Luzula multiflora*	Many-headed Woodrush
O	*Nardus stricta*	Mat-grass
R	*Pinus sylvestris*	Scots Pine
F	*Potentilla erecta*	Tormentil
FL	*Pteridium aquihinum*	Bracken
FL	*Ulex europaeus*	Gorse
FL	*Vaccinium myrtillus*	Bilberry

The Grass Heath

Soil samples from the grass heath were less acid than samples from the heather heath, two areas that merge in a number of places. The pH ranges from 6.2 to 6.8. Tufted Hair-Grass, (*Deschampsja cespitosa*) is the dominant plant, however there are areas where bracken, (*Pteridium aquilinum*), is abundant.

Frequency		
O	*Anthoxanthurn odoratum*	Sweet Vernal-grass
O	*Betula hybrid*	Birch
O	*Betula pendula*	Silver Birch
Q	*Betula pubescens*	Downy Birch
OL	*Blechnum spicant*	Hard Fern
O	*Calluna vulgaris*	Ling
O	*Carex binervis*	Ribbed Sedge
O	*Carox nigra*	Common Sedge
R	*Carex piluhifera*	Pill-headed Sedge
FL	*Chamerion angustifolia*	Rose-bay Willow-herb
O	*Cirsium vulgare*	Spear Thistle

A	*Deschampsia cespitosa*	Tufted Hair-grass
F	*Deschampsia flexuosa*	Wavy Hair-grass
OL	*Dryopteris dilatata*	Broad Buckler Fern
OL	*Erica cinerea*	Bell -heather
OL	*Erica tetralix*	Cross-leaved Heath
OL	*Hieracium vagum*	Shrubby Hawkweed
F	*Holcus lanatus*	Yorkshire Fog
R	*Hypericum pulchrum*	Slender St John's Wort
F	*Ilypochaeria radicata*	Cat's Ear
OL	*Juncus articulatus*	Jointed Rush
OL	*Juncus conglomeratus*	Conglomerate Rush
OL	*Juncus effusus*	Soft Rush
F	*Juncus squarrosus*	Heath Rush
OL	*Juncus tenuis*	Slender Rush
O	*Luzula multiflora*	Many-headed Woodrush
F	*Molinia caerulea*	Purple Moor-grass
O	*Myosotis arvonsis*	Common Forget -me - not
FL	*Nardus stricta*	Mat-grass
FL	*Narthecium ossifragum*	Bog Asphodel
OL	*Poa annua*	Annual Meadow Grass
OL	*Polygala serpyllifohia*	Heath Milkwort
F	*Potentilla erecta*	Tormentil
O	*Prunella vulgaris*	Self -heal
AL	*Pteridium aquilinum*	Bracken
OL	*Raphanus raphanistrum*	Wild Radish
FL	*Rubus fruticous*	Bramble
R	*Salix cinerea x aurita*	
O	*Salix repens*	Creeping Willow
F	*Scirpus cespitosus*	Deergrass
R	*Succisa pratensis*	Devil's-bit Scabious
O	*Taraxacum officinale*	Dandelion
FL	*Vaccinium myrtillus*	Bilberry
R	*Veronica arvensis*	Wall Speedwell
OL	*Viola arvensis*	Field Pansy

The Old MineWorking

This is a small area situated at the south east corner of -the moor. The buildings associated with the mine's winding gear have been removed but overgrown shale-heaps remain. This is the least acid part of the moor with a pH range of 6.8 to 7.0- There is a relatively wide range of species some of which can be associated with the previous human occupation of the area.

FREQUENCY		
O	*Achihlea millefollium*	Yarrow, Milfoil
F	*Arrhenatherum elatius*	False Oat-grass
OL	*Bellis perennis*	Daisy

O	*Betula pubescens*	Downy Birch
O	*Calluna vulgaris*	Ling
O	*Centaurea nigra*	Lesser Knapweed
O	*Cerastium fontanum*	Common Mouse Ear
F	*Chamerion angustifohium*	Rose-bay Willow-herb
F	*Cirsium arvense*	Creeping Thistle
O	*Cirsium vulgare*	Spear Thistle
OL	*Convolvulus arvensis*	Field Bindweed
FL	*Crataegus monogyna*	Hawthorn
FL	*Cytisus scoparius*	Broom
O	*Dactyhis glomerata*	Cock's-foot Grass
O	*Deschampsia cespitosa*	Tufted Hair-grass
O	*Deschampoia - flexuosa*	Wavy hair-grass
O	*DigItalis purpuroa*	Foxglove
O	*Dryoptoris fiflix-mas*	Male Fern
R	*Echinops sphaerocephalus*	Globe Thistle
R	*Echium vulgare*	Viper's Bugloss
O	*Euphrasia nomorosa*	Eyebright
O	*Festuca arundinacea*	Tall Fescue
OL	*Gahium uliginosum*	Fen Bedstraw
F	*Heracleum sphondylum*	Hogweed
OL	*Hieracium pilosella*	Mouse-ear Hawkweed
OL	*Hieraciuum sabaudum*	Leafy Hawkweed
O	*Hieracium vagum*	Shrubby Hawkweed
OL	*Hieracium vulgatum*	Common Hawkweed
F	*Hypochaeris radicata*	Cat's Ear
OL	*Lathyrus pratensis*	Meadow Vetchling
O	*Leontodon autumnalis*	Autumnal Hawkbit
OL	*Linum catharticum*	Purqinq Flax
OL	*Lotus corgniculatus*	Birds foot trefoil
R	*Malus sp.*	Apple
O	*Matricaria matricarioides*	Pineapple Mayweed
R	*Oreopteris limbosperma*	(Mountain) Lemon-scented Fern
F	*Plantago lanceolata*	Ribwort
F	*Poa annua*	Annual Meadow - Grass
O	*Potentilla erecta*	Tormentil
O	*Pteridium aquihinum*	Bracken
R	*Pulmonaria officinalis*	Lungwort
R	*Quercus robur*	Common, (Pedunculate) Oak
OL	*Rosa canina*	Dog Rose
OL	*Rosa molhis*	Soft-leaved Rose
FL	*Rubus fruticosus*	Bramble
FL	*Rumex acetosa*	Common Sorrel
O	*Rumex acetosehla*	Sheep's Sorrel

FL	*Rumex obtusifohius*	Broad-leaved Dock
O	*Sahix caprea*	Great Sallow
O	*Sarnbucus nigra*	Elder
O	*Senecio jacobaea*	Ragwort
O	*Senecio sylvaticus*	Wood Groundsel
OL	*Silene dioica*	Red Campion
OL	*Stachys sylvatica*	Hedge Woundwort
O	*Taraxacurn officinale*	Dandelion
O	*Trifolium dubium*	Lesser Yellow Trefoil
O	*Trifolium pratense*	Red Clover
F	*Trifolium repens*	White Clover
OL	*Trisetum flavescens*	Yellow Oat
FL	*Tussilago farfara*	Coltsfoot
OL	*Ulex europaeus*	Gorse
FL	*Urtica dioica*	Stinging Nettle
OL	*Vaccinium myrtillus*	Bilberry
O	*Veronica chamaedrys*	Germander Speedwell
OL	*Vicia sativa ssp.sativa*	Narrow-leaved Vetch
R	*Vicia sativa ssp.sativa alba*	White Narrow-leaved Vetch

Carr Pond

The records include the plants that occur in the pond itself and in adjacent wet area. The pond is small and as a consequence of recent dry summers is much reduced in area and depth. The pH values for the soil range from 5.3 to 6.2. It is one of the most acid areas of the moor.

Frequency		
O	*Agrostis canina*	Brown Bent-grass
O	*Chamerion angustifoljum*	Rose-bay Willow-herb
O	*Galium Saxatile*	Heath Bedstraw
F	*Holcus lanatus*	Yorkshire Fog
F	*Hydrocotyle vulgaris*	Marsh Pennywort
O	*Iris pseudacorus*	Yellow Flag
P	*Juncus bulbostis*	Bulbous Rush
FL	*Juncus effusus*	Soft Rush
F	*Potentilla erecta*	Tormentil
F	*Potentilla palustris*	Marsh Cinquefoil
O	*Rumex acetosa*	Common Sorrel
O	*Salix cinerea*	Common Sallow
O	*Sparganium erectum*	Bur-reed

The Marsh

This sunken area is near to the western edge of the moor and local naturalists consider that it should be listed as a “site of special scientific interest”. It was at one

time a large shallow pond but now there is little exposed water. The pH varies widely in different sections of the marsh with a range from 5.3 to 6.8.

FREQUENCY		
FL	*Agrostis canina*	Brown Bent-grass
R	*Arrhenatherum elatius*	False Oat-grass
OL	*Betula pubescens*	Downy Birch
O	*Calluna vulgaris*	Ling
O	*Carex binervis*	Ribbed Sedge
R	*Carox curta*	White Sedge
F	*Carex echinata*	Star Sedge
O	*Chamerion angustifolium*	Rose-bay Willow-herb
F	*Deschampsia cespitosa*	Tufted Hair-grass
F	*Deschampsia flexuosa*	Wavy, Hair-grass
OL	*Drosera rotundifolia*	Sundew
O	*Dryopteris dilatata*	Broad Buckler Fern
AL	*Eleocharis .palustris*	Common Spike-rush
O	*Empetrum nigrum*	Crowberry
O	*Epilobium ciliatum*	American Willow-herb
O	*Erica tetralix*	Cross-leaved Heath
F	*Eriophorum angustifolium*	Common Cotton Grass
F	*Holcus lanatus*	Yorkshire Fog
OL	*Juncus acutiflorus*	Sharp-flowered Rush
F	*Juncus bulbosus*	Bulbous Rush
F	*Juncus effusus*	Soft Rush
FL	*Juncus squarrosus*	Heath Rush
L	*Molinia caerulea*	Purple Moor-grass
OL	*Nardus stricta*	Mat-grass
OL	*Potentilla erecta*	Tormentil
OL	*Rumex acetosa*	Common Sorrel
FL	*Scirpus cespitoaus*	Deergrass
FL	*Senecio sylvaticus*	Wood Groundsel

Moordale Bog and Moordale Beck

Moordale Bog is the most acid part of the moor; the pH ranges from an extreme 3.7 to 6.3. Moordale beck that flows from it is less acid, pH 6.6.Despite the acidity of this section of the moor it supports a large number of species. It and the adjacent Old Mine-working, a site of near-neutral soil are of considerable interest, especially during July. Upstream from the Bog, the area is enclosed by Betula sp. but -in an open area Bog Asphodel (*Narthecium ossifragum*), may be found. This plant also occurs in a wet flush in part of central area of grass heath adjacent to one of the main pathways.

Frequency		
FL	*Achillea millefolium*	Yarrow, Milfoil

O	*Achillea ptarmica*	Sneezewort
FL	*Agrostis capillaris*	Common Bent
OL	*Anthoxanthum odoratum*	Sweet Vernal-grass
OL	*Blechnum spicant*	Hard Fern
OL	*Caltha palustris*	Marsh Marigold
F	*Cardamine pratensis*	Lady's Smock
FL	*Carex acutiformis*	Lesser Pond-sedge
O	*Carex echinata*	Star Sedge
O	*Carex ovalis*	Oval Sedge
OL	*Carex rostrata*	Bottle Sedge
FL	*Chamerion angustifolium*	Rose-bay Willow-herb
FL	*Cirsium arvense*	Creeping Thistle
FL	*Cirsium palustre*	Marsh Thistle
OL	*Crataegus monogyna*	Hawthorn
O	*Dactylis glomerata*	Cock's-foot Grass
FL	*Dactylorhiza fuchsii*	Common Spotted Orchid
OL	*Dactylorhiza maculata ssp. ericetorum*	Heath Spotted Orchid
A	*Deschampsia cespitosa*	Tufted - Hair-grass
OL	*Deschampsia flexuosa*	Wavy Hair-grass
R	*Dryopteris carthusiana*	Narrow Buckler Fern
OL	*Dryopteris dilatata*	Broad Buckler Fern
OL	*Dryopteris filix-mas*	Male Fern
F	*Epilobium hirsutum*	Great Hairy Willow-herb
O	*Epilobium palustre -*	Marsh Willow Herb
FL	*Equisetum fluviatile*	Water Horsetail
R	*Equisetum x litorale*	
F	*Erica tetralix*	Cross-leaved Heath
OL	*Festuca rubra*	Red Fescue
OL	*Galeopsis tetrahit*	Common Hemp-nettle
F	*Galium palustre*	Marsh Bedstraw
FL	*Galium saxatile*	Heath Bedstraw
O	*Galium uliginosum*	Pen Bedstraw
F	*Holcus lanatus*	Yorkshire Fog
OL	*Holcus mollis*	Creeping Soft-grass
F	*Hydrocotyle vulgaris*	Marsh Pennywort
O	*Hypochaeris radicata*	Cat's Ear
F	*Juncus acutiflorus*	Sharp-flowered Rush
F	*Juncus effusus*	Soft Rush
OL	*Lathyrus pratensis*	Meadow Vetchling
F	*Lotus uliginosus*	Large Birdsfoot-trefoil
O	*Lychnis flos cuculi*	Ragged Robin
FL	*Menyanthes trifoliate*	Bogbean
FL	*Molinia caerulea*	Purple Moor-grass
OL	*Narthecium ossifragum*	Bog Asphodel
OL	*Potamogeton natans*	Broad-leaved Pondweed
F	*Potentilla erecta*	Tormentil
F	*Potentilla palustris*	Marsh Cinquefoil

OL	*Potentilla :eptane*	Creeping Cinquefoil
F	*Ranunculus flamuula*	Lesser Spearwort
F	*Ranunculus repens*	Creeping Buttercup
F	*Rubus truticosus*	Bramble
FL	*Rumex acetoga*	Common Sorrel
O	*Salix aurita*	Eared Sallow
O	*Senecio jacobaea*	Ragwort
O	*Senecio uylvaticus*	Wood Groundsel
R	*Solanum dulaamara*	Woody Nightshade
FL	*Sparganium erectum*	Bur-reed
F	*Stellaria alsine*	Bog Stitchwort
F	*Stellaria graminea*	Lesser Stitchwort
O	*Stellaria holostea*	Greater Stitchwort
O	*Tussilago farfara*	Coltsfoot
FL	*Typha latifolia*	Great Reedmace
OL	*Viola palustris*	Marsh Violet

Darrell Fryer, November 1991.

The Moths of Eston Moor

A number of moth traps have been carried out recently (1990-91) on Eston Moor amongst the Silver Birch woodland on top of the escarpment. The findings are presented here. In addition a number of records, dating from the previous decade, from the Moor have also been included. The contributors to this list were Peter Waterton, Neville Harwood, Ken Smith, Alex Weir and Malcolm Birtle. Notes under each species are based on information in the following-
'Butterflies and Moths of Yorkshire', Sutton S.L., Beaumont U.K.
'The Moths and Butterflies of Northumberland and Durham', Dunn T.C., Parrack J.D.
'Colour Identification Guide to Moths of the British Isles', Skinner B.
'British Tortricoid Moths, Bradley J.D., Tremewan E.G., Smith A., Ray Society
These notes refer to distribution and densities in Vice-Counties 62 and 66. No information has been collected on relative population densities on Eston Moor itself at this stage.

Zygaenidae

Adiscita statices The Forester
Not common in North Yorkshire. Not recorded in Durham. A day flier with larvae that feeds on Common Sorrel and Sheep's Sorrel.
Zygaena filipendulae stephensi Six-spot Burnet
Common. On Bird's Foot Trefoil.
Zygaena lonicerae latomarginata Narrow Bordered 5-Spot Burnet
On Trefoil, Clover and Vetch.

Sesiidae

Sesia bombeciformis Lunar Hornet Moth
On Sallow, Willow and Poplar. Occasional records in Yorkshire. None in Durham.

Gelechiidae

Neofaculta ericetella
Common on Heather.

Tortricoidea

Acleris hymenana
Common in North Yorkshire on heather. The male flies in Spring sunshine
Apotomis betuletana. Birch Marble
Common in North Yorkshire on Birch.
Clepsis senecionana
Bilberry. Flies in Spring sunshine. Fairly common in North Yorkshire.
Epinotia ramella
Common in North Yorkshire on Birch.
Epinotia stroemiani Stroems Bell
Common in N. Yorkshire on Birch.

Lasiocampidae

Lasiocampa quercus callunae Northern Eggar
Common on Heather and Bilberry
Macrothylacia rubi Fox Moth
Common on many moorland plants.
Philudoria potatoria The Drinker
Common on grasses and reeds.

Saturniidae
Pavonia pavonia Emperor Moth
On various plants. Male flies in sunshine. Frequent in Durham and N. Yorkshire

Drepanidae

Drepana falacataria falcataria Pebble Hook Tip
Common on Birch.

Thyatiridae

•*Idaea arversata* Riband Wave
Common on a variety of plants.
Achyla flavicornis galbanus Yellow Horned
Common in Birch.

Habrosyne pyritoides Buff Arches
On Bramble. Widely distributed in N. Yorkshire. Extinct in Durham.
Thyatira batis Peach Blossom
Common. On Bramble.

Geometridae

Biston betularia Peppered Moth
Common on various plants.
Bupalus piniaria Bordered White
Common in conifer plantations. On Pine.
Lomaspilis marginata Clouded Border
Common on Sallow and Aspen
Selenia dentaria Early Thorn
Common on various, trees and shrubs.
Semiothisa liturata Tawny Barred Angle
Common in conifer plantations. On Pine.
Geometra papilioaria Large Emerald
Common on Birch.
Pseudoterpna pruinata atropunctaria Grass Emerald
Common. On Gorse and Broom.
Aplocera plagiata plagiata Treble Bar
Locally common in low numbers. St.Johns Wort (Hypericum sp.).
Cabera pusarta Common White Wave
Common on a variety of trees.
Cidaria fulvata Barred Yellow
On wild rose.
Colostygia pectinataria Green Carpet
Common on Bedstraw.
Cosmorhoe ocellata Purple Bar
Common on Bedstraw.
Eulithis populata Northern Spinach
Common on Bilberry. Sometimes day flying
Eupithecia nanata angusta Narrow Wing-ed Pug
Common on Heather.
Eupithecia trisignaria Triple Spotted Pug
On Angelica and Hogweed.Sporadic records in Durham and N. Yorkshire
Perizoma alchemillata Small Rivulet
Common on Hemp Nettle (Galeopsis Sp.). Common.
Xanthorhoe montanata montanata Silver Ground Carpet
Common on various plants.
Archiearis parthenias Orange Underwing
Very active in sunshine. On Birch. Sparse records in Durham, local in N. Yorkshire.

Sphingidae

Deilephila elpenor Elephant Hawk Moth
Common on Rosebay and Bedstraw.
Hyles gallii Bedstraw Hawk Moth
Widespread but infrequent. Bolstered by immigration. On Willlowherb.
Laothoe populi Poplar Hawk Moth
Common on Poplar, Willow, Sallow, Aspen.

Notodontidae

Cerura vinula Puss Moth
Common on Sallow.
Eligmodonta ziczac Pebble Prominent
Widely distributed and fairly Common on Sallow, Willow, Aspen, and Poplar.
Furcula furcula Sallow Kitten
On Sallow, Aspen. and Poplar.Locally common in N. Yorkshire. Scarce in Durham.
Notodonta dromedarius Iron Prominent
On Birch, Alder and Hazel. Frequent but not common.
Phalera bucephala Buff Tip
On various trees. Unpredictable in its occurrence.
Pheosia gnoma Lesser Swallow Prominent
Common on Birch.
Pheosia tremula Swallow, Prominent
Not as common as *gnoma*. On Sallow, Willow and Aspen.
Pterostoma palpina Pale Prominent
On Poplar, Aspen and Willow. Rare in Durham. Scattered records in N. Yorkshire
Ptilodon capucina Coxcomb Prominent
Common amongst deciduous trees.

Lymantriidae

Euproctis similis Yellowtail
Common in N. Yorkshire. Scarce in Durham becoming commoner. On various trees.
-

Arctiidae

Arctia cajae Garden Tiger
Fairly common.
Diaphora mendica Muslin Moth
Well distributed but not numerous in Durham and N. Yorkshire. On a variety of herbaceous - plants.
Parasemia plantaginis plantaginis Wood Tiger
On herbaceous plants. Occasional records.
Phragmatobia fulingosa. Fulingosa Ruby Tiger
On herbaceous plants. Widespread but not common in both Durham and North Yorkshire.

Noctuidae

Acronicta leporina The Miller
Not regarded as a common moth in North Yorkshire or Durham.
Antitype chi Grey Chi
Common in Durham and N.Yorkshire. Rests on walls and rocks. On a variety of plants.
Xanthia icteritia The Sallow
Common on Sallow and some low plants.
Ceramica pisi Broom Moth
Fairly common on a variety of plants.
Cerapteryx graminis Antler Moth
Common grasses. Sometime day flying.
Mythimna ferrago The Clay
Common on various plants in rough grassland. Can be found by day on Ragwort.
Mythimna pallens Common Wainscot
Common on grasses.
Hypena proboscidalis The Snout
Common on nettle.
Agrotis exclamationis Heart and Dart
On a variety of plants. Common.
Eurois occulta Great Brocade
Resident and immigrant. On wet mountain areas. On Bog Myrtle in Scotland.
Euxoa atritici White Line Dart
Regarded as very local in N. Yorkshire. On sandy areas close to the coast.
Lycophotia porphyrea True Lovers Knot
Common on Heather.
Noctua comes Lesser Yellow Underwing
Common on various plants
Noctua janthina Lesser Broad-Bordered Yellow Underwing
Common on various plants
Noctua pronuba Large Yellow Underwing
Very common on various plants.
Ochropleura plecta Flame Shoulder
Common on various plants.
Paradiarsia glareosa glareosa Autumnal Rustic
Common in woodland adlacent to moorland.
Xestia xanographa Square Spot Rustic
Common on grasses and low plants.
Xanthia agathina Heath Rustic
Fairly common. Distribution not well known.
Autographa gamma Silver Y
Very common immigrant.

Autographa pulchrina Beautiful Golden Y
Common on various plants.
Diarsia mendica mendica Ingrailed Clay
Common.
Plusia putnami gracilis Lempkes Gold Spot
Skinner-“Larvae has not been found in the wild”. On Purple Small Reed. Isolated records.
Apamea crenata Clouded Bordered Brindle
On grasses. Common.
Apamea remissa Dusky Brocade
.On grasses. Common.
Apamea lithoxylaea Light Arches
Probably on grasses. Common.
Apamea monoglypha Dark Arches
Very common. On grasses.
Cosmia trapezina The Dun-Bar
Widely recorded in Durham and N. Yorkshire. Carnivorous larvae. On a variety of trees.
Euplexta lucipara Small Angle Shades
On various plants including ferns.
Common.
Mesoligia literosa Rosy Minor
Common on grasses.
Mormo maura The Old Lady
Scattered records in Durham. More common in N. Yorkshire. Known to roost in buildings. On Birch and various thorns.
Panomeria tenebrata, Small Yellow Underwing
Common flying in sunshine visiting meadow flowers. On Common Mouse Eat-(*Cerastium holosteoides*). Typical of hay meadows. Local in both Durham and N. Yorkshire.
Parastichtis suspecta The Suspected
Very rare in Durham and declining. Locally common in Yorkshire. On Birch.
Photedes minima Small Dotted Buff
Common on Tufted Hair Grass.
Stilbia anomala The Anomalous
On Wavy Hair Grass and other moorland grasses. Occasional records in Yorkshire. Rare in Durham.

The Butterflies of Eston Moor

Hesperiidae

Ochlodes venata Large Skipper
Common on grasses

Lycaenidae

Callophrys rubi Green Hairstreak
A very small number of isolated colonies in colonies in Durham. Many small well defined colonies in N. Yorkshire. On Bilberry.
Lycaena phleaus Small Copper
Common on Dock.
Polyommatus icarus Common Blue
Common on Bird's Foot Trefoil.

Nymphalidae

Aglais urticae Small Tortoiseshell
Common.
Cynthia cardui Painted Lady
Scattered frequent records.
Inachis io Peacock
Common.
Vanessa atalanta Red Admiral
Scattered frequent records.

Satyridae

Coenonympiaa pamphilus Small Heath
On grasses. Common but noticably decreasing in Durham. Intolerant of cultivation.
Lasiommata megera Wall Brown
Common.
Maniola jurtina Meadow Brown
Common

The Dragonflies of Eston Moor

Zygoptera

Coenagrion puella Azure Damselfly
Nationally common.
Enallagma cyathigerum Common Blue Damselfly
Nationally very common
Ishnura elegans Blue Tailed Damselfly
Nationally very common.
Pyrrhosomna nymphula Large Red Damselfly
Nationally very common and the first to appear in the Spring (April).

Anisoptera

Aeshna juncea Common Hawker

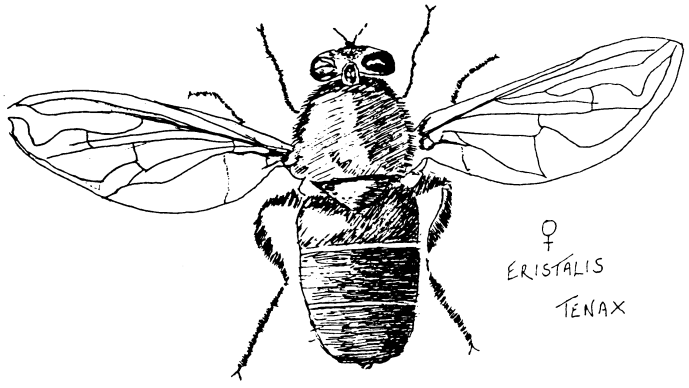
Anax imperator Emperor Dragonfly
Cordulegaster boltonii
Sympetrum danae Black Darter
Symnpetrum striolatum Common Darter
Very common nationally. Often the last to be seen in the year (October).
Libellula quadrimaculata Four Spotted Chaser
Common nationally, but sparse records for the North-East.
Lestes sponsa Emerald Damselfly
Widespread and common nationally.

Some Insects from Eston Moor

The following were collected from the area around the “Nab’ unless otherwise stated.

***Syrphidae* - Hoverflles**

Chysotoxum arcuatum
NZ 562 171
Eristalis pertinax
Eristalis tenax
Eristalis arbustorum
Drone Flies
Resemble Honey Bee Drones. The larvae Is the 'rat-tailed' maggot of stagnant water.
Platycheirus albimanus
Episyrphis balteatus
Very common. Feeds on pollen.
Rhingia campestris
Possesses a long 'snout'. Breeds in dung and frequents hedgerows and woods. Probes 'tubular' flowers for nectar and pollen e.g. Bugle and Ground Ivy.
Dasvsvrphus albostriatus



Empididae

Predators of insects particularly other Diptera.

Pacymeria tessalata
Often on Umbellifers and Hawthorn.

Guisborough Branch Walkway

The vascular plants present on the - walkway were first recorded in 1990. During the present year many more species have been listed, including some that were not present in that year. The total of recorded species is 282. Of these: two are horsetails, three are ferns, one is yew and thirty four are grasses, sedges or rushes. The remaining- 242 plants are what many visitors to the walkway will regard as being-the- “wild flowers”!

Some species such as globe thistle, (*Echinops sphaerocephalus*). Clustered Bellflower, (*Campanula glomerata*), and White Violet, (*Viola odorata*), that occur in the area of the former Pinchinthorpe station will be present owing to the activity of the community that at one time lived and worked there. Other species, including some trees, have been planted by the Cleveland County Council. Two small ponds have been created and these were planted with appropriate species by the walkway wardens during the summer of 1990. Species of interest that have been recorded for the first time this year are: White Mustard, (*Sinapis alba*). Caper Spurge, (*Euphorbia lathyrus*), Beggar Ticks, (*Bidens frondosa*). Corn Cockle, (*Agrostemma githago*). Corn Marigold, (*Chrysanthemum segetum*) and Smooth Tare, (*Vicia tetrasperroa*). The following species of Rose have been recorded; *Rosa canina*, *tomentosa*, *afzeliana*, *sherardii*, *mollis*, *coriifolia*; hybrids have been noted.

Darroll Fryer November 1991

The Geology of Guisborough Woods around Hutton Lowcross Village

This short note on the geology around Hutton Lowcross is intended to help people carrying out botanical and other survey work taking place in this area during the coming months (1992). The area referred to is covered by OS grid squares NZ6013,6113, and 5913.This is steeply rising ground from approximately 110m O.D. at Hutton Lowcross village to 250m O.D. at the moor edge of the woods.

Most of the strata in this area is covered by trees, forestry tracks, and mine spoil. The best exposures are on the edges of the wood, cuttings at the edge of forestry tracks, and in the steep sided gulleys formed by narrow streams running off Gisborough Moor. The rocks in this area are universally of Jurassic age (approximately 175 million years old). The beds are roughly horizontal when looking directly at the hillside covered by the woods south of the village. The strata actually dip gently south from the hillside under Gisborough Moor. The strata forming the hillside under the woods can be divided into three parts starting at the top of the hill and moving down to the village.

1. Middle Jurassic Lower Deltaic Series (Aalenian, Saltwick Formation)

This series of rock beds forms the crags at Highcliff Nab and the Hanging Stone (NZ591134). At the base of this series is a distinctive band of calcareous, or chamositic, sandstone called the Dogger. However this band is only l-2m thick and is consequently difficult to find in this area. The stratigraphy of this series is very complex. The rocks are mostly comprised of coarse yellow/red sandstones deposited in a network of channels in a delta with most of the sediment coming from the north. Thin shale bands occur which were laid down during short incursions of the sea. Within these shale bands are often found fossil plants deposited during short periods of emergence from the sea, or delta channels. This is part of the same feature found at Roseberry Topping-the Thinfeldia Leaf Bed.

2.Lower Jurassic Upper Lias (Toarcian,Whitbian)

This is probably one of the most heavily studied series of beds in the country, and consequently the common nomenclature for these rocks has become rather dated and confused. However it may be summarised in increasing age (i.e. as the observer at the village brings his gaze down the hillside from the sandstone crags at the top)

Cement Shale (15m containing calcareous cement nodules)

Alum Shale (37m Soft grey micaceous shale)

There were three alum works at Guisborough none of which were regarded as important- Spring Bank, Newgate Bank, and Belman Bank. Development of these works was constrained by the lack of available transport unlike the coastal sites e.g.Boulby.

Bituminous Shale (23m of oil rich shales)

Top Jet Dogger (thin pyritic limestone)

Jet Rock (9m finely laminated, containing calcareous concretions)

Grey Shales (13m containing sideritic nodules, highly pyritic)

3 .Lower Jurassic Middle Lias (Pleinsbachian,Domerian)

This consists of two principal members

Cleveland Ironstone-Up to 24m of chamositic oolite deposited in shallow water. This was mined in the Hutton, Cod Hill mine complex. This was a set of drifts and quarries along the hillside connected by inclines to a branch railway, which ran up the main street of the village. The peak years of the mine were 1858 (257,129 tons), and 1864 (171,727 tons). The complex was worked for 10 years from 1855-1865 by J. W. Pease and Co. Consequently the lower part of the hillside is covered extensively by spoil and mine/quarry workings obscuring much of the geology.

Staithes Formation-30 m of shallow water sandstones with shell beds containing abundant bivalves, gastropods, and ammonites.

References

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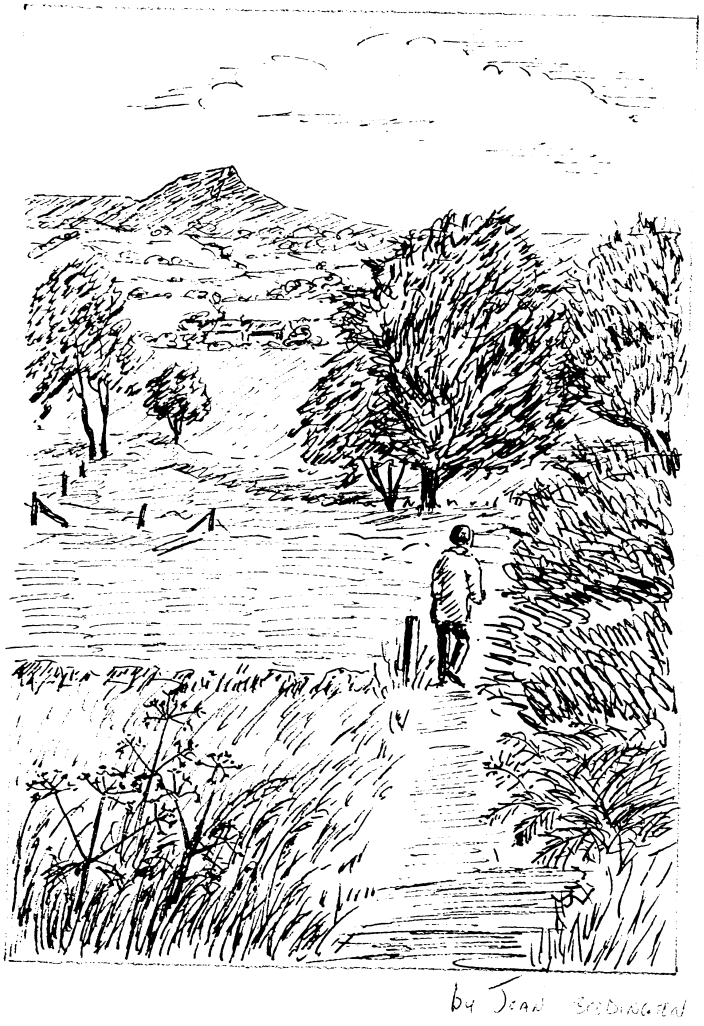
Alum, Morrison A.

SUMMER PROGRAMME 1992

DATE	AREA OF WALK	LEADER	MEETING PLACE
Sun March 22nd 2.00pm	Greatham	Malcolm Birtle	Near the "Hope & Anchor"
Sat. April 11th 2.00pm	Dunsdale & Wilton Woods	Pat Wood	Dunsdale Village
Sat. April 25th 2.30	Hunt-Cliff Shoreline	Malcolm Birtle	Cat Nab Car Park, Saltburn
Sun May 10th 2.00pm	Cow Close Wood, Moorsholm	Graeme Aldous	Near Moorsholm Church
Wed. May 13th 7.00pm	Fortypence Wood,	Mike Yates	Skelton Ellers
Sat. May 16th 2.00 pm	Castle Eden Dene	Maurice Hallam	Near the church
Wed May 20th 7.00pm	Hart Warren,	Vincent Jones	The south end of Crimdon Dene Car Park
Sat May 23rd	Penshaw,	Maurice Ward	Near the Penshaw

11.00am			Monument
Wed. June 3rd 7.00pm	Hutton Lowcross Woods,	John Blackburn	The road approaching Hutton village
Wed. June 1Oth 7.00pm	Burn Wood,	John Blackburn	At the wood
Sun. June 14th 11.00 am	Broadway Foot Farm,	lan Laurence	Bilsdale
Wed. June 17th 7.00 pm	Billingham Beck Valley,	Malcolm Birtle	Ecology Car Park
Wed. June 24th 7.00pm	Ormesby Brick Works,	Darroll Fryer	Flatt's Lane Car Park
Sat. June 27th 11.00pm,	Cronkley Fell, Teesdale,	Joan Bradbury	Middleton-in-Teesdale
Wed. July 1st 7.00 pm	Aislaby Riverside,	Malcolm Birtle	"Blue-Bell" end of Yarm High Street
Sun. July 5th 11.00 am	Boulby Quarry	lan Lawrence	Near the village
Wed. July 8th 7.00pn	Billingham Ecology Park	lan Lawrence	Ecology Car Park
Sat. July 11th 2.00pm	Whitby West, Upgang	Vincent Jones	
Wed. July 15th 7.00pm	Hardwick Hall Park	lan Lawrence	Nature Reserve Car Park
Wed. July 22nd	Swainby,	Maurice Ward	Swainby Church
Sun. Aug. 9th 2.00 pm	Rosecroft Woods, Loftus,	Darroll Fryer	Loftus Car Park
Sat. Aug. 23rd 11.00 am	Moorland near Scaling Dam	Darroll Fryer	
Sun. Aug. 30th	Beckdale,	Norman Thompson	Castle Car Park, Helmsley
Sun Sep 13th 11.00 am	Ponds in Greatham Area	Howard Ward	
Sun. Sep. 27th 11.00am	Lazenby Bank. Fungus Foray,	Pat Wood	Lazenby Bank Car Park
Sun. Oct. 25th 1.Oopm	Riftswood. Fungus Foray	Mike Yates	Cat Nab Car Park, Saltburn


by Jean Spalding