

BUCK WOOD, BRADFORD

Ecological Survey



April 2006



Friends of Buck Wood

Contents

Introduction.....	2
Plants List.....	3
Fungi.....	7
Reptiles/Amphibians.....	10
Mammals.....	10
Birds.....	11
Butterflies.....	12
Moths.....	13
Fresh Water Life.....	17
National Vegetation Classification Survey.....	18

INTRODUCTION

Buck Wood is a diverse area consisting of mixed woodland interspersed with open pastures and bounded by the River Aire and Leeds and Liverpool Canal. Its position on the Aire gap migration route results in an interesting wildlife population.

This report is compiled from information gathered from a number of sources. Most of them are current sightings but some contain sightings dating back several years. Further surveys are required to obtain a more comprehensive picture. For example there is little knowledge of insect life in the wood and fuller surveys of mammals and amphibians would be useful.

The Plant Report is compiled from records of the West Yorkshire Ecology Unit, C. Alvin and the National Vegetation Classification Survey by G. Wilmore 2005.

The Fungi Report is compiled from records supplied by C. Alvin and V. Youngson 2004/2005.

The Reptiles and Mammals Report is compiled from current sightings and earlier sightings recorded in Bradford Naturalist Reports 1986 – 2003.

The Bird Report is compiled from Bradford Naturalists records 1975 - 2004 , sightings by N. A. Alvin 1986-2005, and sightings by N. A. Alvin and P. J. Carlton 2005. Further work is required on this report and a further breeding bird survey needs to be carried out.

The Butterfly Report is compiled by sightings taken by N. A. Alvin from 1992 - 2005.

The Moth Report is compiled from sightings recorded by N. A. Alvin from 1986 – 2005. Although the records were not actually taken in Buck Wood, as the recording site is only 200 metres away – SE 174 387 - they can be taken as representative of the wood. The Report also contains records from D. Parkinson recorded at Gill Wood, Esholt SE 191 398 in 2005.

The Fresh Water Life Report is compiled from information supplied by C. Hardaker.

Buck Wood: Report of National Vegetation Survey, by G. Wilmore, commissioned by the Friends of Buck Wood .

PLANTS

Alder	<i>Alnus glutinosa</i>
Archangel, yellow	<i>Lamiaeum galeobdolon</i>
Ash	<i>Fraxinus exelsior</i>
Balsam, Indian (Himalayan)	<i>Impatiens glandulifera</i>
Bearded couch	<i>Elymus caninus</i>
Bedstraw, common marsh-	<i>Galium palustre</i>
Bedstraw, heath	<i>Galium saxatile</i>
Bedstraw, marsh	<i>Galium palustre ssp. Palustre</i>
Beech	<i>Fagus sylvatica</i>
Bent, common	<i>Agrostis capillaris</i>
Bent, velvet	<i>Agrostis canina</i>
Bindweed, large	<i>Calystegia sepium ssp. silvatica</i>
Birch, downy	<i>Betula pubescens</i>
Birch, hybrid	<i>Betula x aurata</i>
Birch, silver	<i>Betula pendula</i>
Bitter-cress, hairy	<i>Caramine hirsuta</i>
Bitter-cress, wavy	<i>Cardamine flexuosa</i>
Black Italian poplar	<i>Populus x canadensis</i>
Black medick	<i>Medicago lupulina</i>
Blackthorn	<i>Prunus spinosa</i>
Bluebell	<i>Hyacinthoides non-scripta</i>
Bracken	<i>Pteridium aquilinum</i>
Bramble	<i>Rubus fruticosus agg.</i>
Bridewort	<i>Spiraea salicifolia</i>
Broom	<i>Cytisus scoparius</i>
Bryony, black	<i>Tamus communis</i>
Bugle	<i>Ajuga reptans</i>
Bulrush	<i>Typha latifolia</i>
Burdock	<i>Arctium agg.</i>
Burdock, lesser	<i>Arctium minus</i>
Burnet, great	<i>Sanguisorba officinalis</i>
Butterbur	<i>Petasites hybridus</i>
Buttercup, celery-leaved	<i>Ranunculus sceleratus</i>
Buttercup, creeping	<i>Ranunculus repens</i>
Buttercup, meadow	<i>Ranunculus acris</i>
Butterfly bush	<i>Buddleia davidii</i>
Campion, red	<i>Silene dioica</i>
Canary-grass, reed	<i>Phalaris arudinacea</i>
Cat's-ear	<i>Hypochaeris radicata</i>
Celandine, lesser	<i>Ranunculus ficaria</i>
Cherry, wild	<i>Prunus avium</i>
Chestnut, sweet	<i>Castanea sativa</i>
Chickweed, common	<i>Stellaria media</i>
Cleavers	<i>Galium aparine</i>
Clover, red	<i>Trifolium pratense</i>
Clover, white	<i>Trifolium repens</i>
Cock's-foot	<i>Dactylis glomerata</i>

Coltsfoot	<i>Tussilago farfara</i>
Comfrey, common	<i>Symphytum officinale</i>
Comfrey, Russian	<i>Symphytum xuplandicum</i>
Cotoneaster	<i>Cotoneaster</i> spp.
Couch, common	<i>Elytrigia repens</i>
Cowparsley	<i>Anthriscus sylvestris</i>
Crab apple	<i>Malus sylvestris</i>
Currant, flowering	<i>Ribes sanguineum</i>
Daffodil, wild	<i>Narcissus pseudonarcissus</i>
Daisy	<i>Bellis perennis</i>
Dame's-violet	<i>Hesperis matronalis</i>
Dandelion, common	<i>Taraxacum officinale</i>
Dock, broad-leaved	<i>Rumex obtusifolius</i>
Dock, curled	<i>Rumex crispus</i>
Dock, wood	<i>Rumex sanguineus</i>
Dog's mercury	<i>Mercurialis perennis</i>
Dog's-tail, crested	<i>Cynosurus cristatus</i>
Elder	<i>Sambucus nigra</i>
Elm, wych	<i>Ulmus glabra</i>
False oat-grass	<i>Arrhenatherum elatius</i>
Fern, broad buckler-	<i>Dryopteris dilatata</i>
Fern, male	<i>Dryopteris filix-mas</i>
Fescue, giant	<i>Festuca gigantea</i>
Fescue, red	<i>Festuca rubra</i>
Figwort, common	<i>Scrophularia nodosa</i>
Foxglove	<i>Digitalis purpurea</i>
Garlic, field	<i>Allium oloraceum</i> (BNats 1985)
Garlic mustard (Hedge garlic)	<i>Alliaria petiolata</i>
Gorse	<i>Ulex europaeus</i>
Ground-ivy	<i>Glechoma hederacea</i>
Groundsel	<i>Senecio vulgaris</i>
Hair-grass, tufted	<i>Deschampsia cespitosa</i>
Hair-grass, wavy	<i>Deschampsia flexuosa</i>
Hairy-brome	<i>Bromopsis ramosa</i>
Hard fern	<i>Blechnum spicant</i>
Hawkweeds	<i>Hieracium</i> agg.
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Heather	<i>Calluna vulgaris</i>
Hogweed	<i>Heracleum sphondylium</i>
Holly	<i>Ilex aquifolium</i>
Honesty	<i>Lunaria annua</i>
Honeysuckle	<i>Lonicera periclymenum</i>
Ivy	<i>Hedera helix</i>
Knapweed, common	<i>Centaurea nigra</i>
Knotweed, Japanese	<i>Fallopia japonica</i>
Larch, European	<i>Laeix decidua</i>
Larch, Japanese	<i>Larix kaempferi</i>
Lords-and-ladies	<i>Arum maculatum</i>

Loosestrife, yellow	<i>Lysimachia vulgaris</i> (BNats 1985)
Meadow crane's-bill	<i>Geranium pratense</i>
Meadow foxtail	<i>Alopecurus pratensis</i>
Meadow-grass, annual	<i>Poa annua</i>
Meadowsweet	<i>Filipendula ulmaria</i>
Mouse ear, common	<i>Cerastium fontanum</i>
Mugwort	<i>Artemisia vulgaris</i>
Nettle, common	<i>Urtica dioica</i>
Nipplewort	<i>Lapsana communis</i>
Oak, hybrid	<i>Quercus x rosacea</i>
Oak, pedunculate	<i>Quercus robur</i>
Oak, sessile	<i>Quercus petraea</i>
Oak, Turkey	<i>Quercus cerris</i>
Oat-grass, yellow	<i>Trisetum flavescens</i>
Oregon-grape	<i>Mahonia aquifolium</i>
Pignut	<i>Conopodium majus</i>
Pimpernel, yellow	<i>Lysimachia nemorum</i>
Pineappleweed	<i>Matricaria discoidea</i>
Plantain, greater	<i>Plantago major</i>
Plantain, ribwort	<i>Plantago lanceolata</i>
Plantain, water	<i>Alisma plantago-aquatica</i>
Plum, wild	<i>Prunus domestica</i>
Privet, garden (cultivated)	<i>Ligustrum ovalifolium</i>
Ragwort, common	<i>Senecio jacobaea</i>
Ramsons	<i>Allium ursinum</i>
Raspberry	<i>Rubus idaeus</i>
Red bartsia	<i>Odontites vernus</i>
Rhododendron	<i>Rhododendron ponticum</i>
Rose, dog	<i>Rosa canina</i>
Rose, garden (unidentified)	<i>Rosa ssp.</i>
Rose, wild	<i>Rosa aggregate spp.</i>
Rough-stalked meadow-grass	<i>Poa trivialis</i>
Rowan	<i>Sorbus aucuparia</i>
Rye-grass, perennial	<i>Lolium perenne</i>
Sage, wood	<i>Teucrium scorodonia</i>
Sallow, grey	<i>Salix cinerea</i>
Scots pine	<i>Pinus sylvestris</i>
Sedge, remote	<i>Carex remota</i>
Sedge, wood	<i>Caerx sylvatica</i>
Self-heal	<i>Prunella vulgaris</i>
Shepherd's purse	<i>Capsella bursa-pastoris</i>
Snowberry	<i>Symphoricarpos albus</i>
Soft-grass, creeping	<i>Holcus mollis</i>
Soft-rush	<i>Juncus effusus</i>
Sorrel, common	<i>Rumex acetosa</i>
Sorrel, sheep's	<i>Rumex acetosella</i>
Sow-thistle, blue	<i>Circerbita macrophylla</i> (1985)
Sow-thistle, smooth	<i>Sonchus oleraceus</i>
Spearwort, lesser	<i>Ranunculus flammula</i>

Speedwell, germander	<i>Veronica chamaedrys</i>
Speedwell, ivy-leafed	<i>Veronica hederifolia</i>
Speedwell, thyme-leaved	<i>Veronica serpyllifolia</i>
Stitchwort, bog	<i>Stellaria uliginosa</i>
Strawberry, barren	<i>Potentilla sterilis</i>
Sweet vernal-grass	<i>Anthoxanthum odoratum</i>
Sweet-grass, floating	<i>Glyceria fluitans</i>
Sweet-grass, reed	<i>Glyceria maxima</i>
Sweet-grass, small	<i>Glyceria declinata</i>
Sycamore	<i>Acer pseudoplatanus</i>
Tansy	<i>Tanacetum vulgare</i>
Teasel	<i>Dipsacus fullonum</i>
Thale cress	<i>Arabidopsis thaliana</i>
Thistle, creeping	<i>Cirsium arvense</i>
Thistle, marsh	<i>Cirsium palustre</i>
Thistle, spear	<i>Cirsium vulgare</i>
Thistle, walted	<i>Caruus crispus</i>
Timothy	<i>Phleum pratense</i>
Vetch, bush	<i>Vicia sepium</i>
Violet, common dog-	<i>Viola riviniana</i>
Water-starwort, common	<i>Callitriche stagnalis</i>
Weld	<i>Reseda luteola</i>
Whitebeam, Swedish	<i>Sorbus intermedia</i>
Willow, crack	<i>Salix fragilis</i>
Willow, goat	<i>Salix caprea</i>
Willow, purple	<i>Salix purpurea</i>
Willowherb, American	<i>Epilobium ciliatum</i>
Willowherb, broad-leaved	<i>Epilobium monotanum</i>
Willowherb, great	<i>Epilobium hirsutum</i>
Willowherb, rosebay	<i>Chamerion angustifolium</i>
Wood anemone	<i>Anemone nemorosa</i>
Wood avens	<i>Geum urbanum</i>
Wood millet	<i>Milium effusium</i>
Woodruff	<i>Galium odoratum</i>
Wood-rush, field	<i>Luzula campestris</i>
Wood-rush, great	<i>Luzula sylvatica</i>
Wood-sorrel	<i>Oxalis acetosella</i>
Wormwood	<i>Artemisia absinthium</i>
Woundwort, hedge	<i>Stachys sylvatica</i>
Yarrow	<i>Achillea millefolium</i>
Yorkshire-fog	<i>Holcus lanatus</i>

FUNGI

Agaric, Clouded	<i>Clitocybe nebularis</i>
Agaric, Fly	<i>Amanita muscaria</i>
Amethyst Deceiver	<i>Laccaria amethystea</i>
Antler fungus, 'horny'	<i>Calocera cornea</i>
Antler fungus, Jelly	<i>Calocera viscosa</i>
Beechwood Sickener	<i>Russula mairei</i>
Bell Cap, Scarlet	<i>Mycena adonis</i>
Black Bulgar	<i>Bulgaria inquinans</i>
Blusher	<i>Amanita rubescens</i>
Bolete, Bay	<i>Boletus badius</i>
Boletus	<i>Boletus pruinatus</i>
Boletus, Brown Birch	<i>Leccinum scabrum</i>
Boletus, Cow	<i>Suillus bovinus</i>
Boletus, Red-cracked	<i>Boletus chrysenteron</i>
Bonnet mushroom	<i>Mycena galericulata</i>
Bracket, Beech	<i>Trametes gibbosa</i>
Bracket, Blushing	<i>Daedaleopsis confragosa</i>
Brown Cap, Clustered	<i>Lyophyllum decastes</i>
Brown roll-rim[☞]	<i>Paxillus involutus</i>
Butter cap	<i>Collybia butyracea</i>
Candle Snuff	<i>Xylaria hypoxylon</i>
Cep, Penny Bun	<i>Boletus edulis</i>
Chanterelle, Tubed	<i>Cantharellus tubaeformis</i>
Charcoal Burner, The	<i>Russula cyanoxantha</i>
Ciboria	<i>Ciboria batschiana</i>
Coral formosa	<i>Ramaria formosa</i>
Coral fungus, Crested	<i>Clavulina cristata</i>
Coral Spot	<i>Nectria cinnabarina</i>
Cortinarius, Blood-red	<i>Cortinarius sanguineus</i>
Cramp Ball	<i>Daldinia concentrica</i>
Cup-shaped fungi spp	<i>Peziza spp</i>
Dead Man's Fingers	<i>Xylaria polymorpha</i>
Deceiver	<i>Laccaria laccata</i>
Earthball, Common	<i>Scleroderma citrinum</i>
Ergot	<i>Claviceps purpureum</i>
Exidia	<i>Exidia thuretiana</i>
Fairy club, Yellow	<i>Clavulinopsis helvola</i>
Fairy Ring Champignon	<i>Marasmius oreades</i>
False Death Cap	<i>Amanita citrina</i>
Funnel Cap, Aniseed	<i>Clitocybe odora</i>
Funnel Cap, Club-footed	<i>Clitocybe clavipes</i>
Funnel Cap, Geotropa	<i>Clitocybe geotropa</i>
Funnel Cap, Common	<i>Clitocybe infundibuliformis</i>
Gregarius Elf-cap [oak]	<i>Mycena inclinata</i>
Honey Fungus	<i>Armillaria mellea</i>
Ink-cap	<i>Coprinus niveus</i>

Ink-cap, Common	<i>Coprinus atramentarius</i>
Ink-cap, Glistening	<i>Coprinus micaceus</i>
Ivory Clitocybe [♀]	<i>Clitocybe dealbata</i>
Jelly fungus, Purple	<i>Ascocoryne sarcoides</i>
Jelly leaf	<i>Tremella foliacea</i>
Jelly-spot, Orange	<i>Dacrymyces stillatus</i>
Jew's Ears	<i>Auricularia auricula-judae</i>
Little wheel toadstool	<i>Marasmius rotula</i>
Marasmius [beech litter]	<i>Marasmius wynnei</i>
Marasmius [on twigs]	<i>Marasmius ramealis</i>
Maze Gill	<i>Daedalea quercina</i>
Melampsora unknown spp	<i>Melampsora capraeum</i>
Milk Cap	<i>Lactarius chrysorrheus</i>
Milk Cap, Beech	<i>Lactarius blennius</i>
Milk Cap, Oak	<i>Lactarius quietus</i>
Milk Cap, Ugly	<i>Lactarius turpis</i>
Milk Cap, Woolly	<i>Lactarius torminosus</i>
Mycena	<i>Mycena filopes</i>
Mycena, Milk-drop	<i>Mycena galopus</i>
Mycena, Yellow-stemmed	<i>Mycena epiptygeria</i>
Orange Moss Agaric	<i>Mycena fibula</i>
Orange-peel Fungus	<i>Peziza aurantium</i>
Oyster fungus, Branched	<i>Pleurotus cornucopiae</i>
Phlebia	<i>Phlebia radiata</i>
Pholiota, Orange	<i>Gymnopilus junonius</i>
Pholiota, Shaggy	<i>Pholiota squarrosa</i>
Pleurotus	<i>Pleurotus serotinus</i>
Polypore, Birch [razor-strop]	<i>Piptoporus betulinus</i>
Polypore, Grey or Smoky	<i>Bjerkera adustra</i>
Polypore, Leafy	<i>Grifola frondosa</i>
Polypore, Many-zoned	<i>Coriolus zonatus</i>
Puffball, Common	<i>Lycoperdon perlatum</i>
Puffball, Giant	<i>Langermannia gigantea</i>
Puffball, Pestle	<i>Calvatia exculpiformis</i>
Puffball, Stump	<i>Lycoperdon pyriforme</i>
Russula, Blackish-purple	<i>Russula atropurpurea</i>
Russula, Common yellow	<i>Russula ochroleuca</i>
Russula, Foetid	<i>Russula foetans</i>
Scarlet Hood	<i>Hygrocybe coccinea</i>
Shaggy Parasol	<i>Macrolepiota rhacodos</i>
Sickener	<i>Russula emetica</i>
Soft-slipper Toadstool	<i>Crepidotus mollis</i>
Stinkhorn	<i>Phallus impudicus</i>
Sulphur Toadstool	<i>Tricoloma sulphureum</i>
Sulphur Tuft	<i>Hypholoma fasciculare</i>
Tar spot	<i>Rhytssima acerina</i>
Tawny Grisette	<i>Amanita fulva</i>
Variable slipper Toadstool	<i>Crepidotus variabilis</i>
Velvet Shank	<i>Flammulina velutipes</i>

Verdigris Toadstool	<i>Stropharia aeruginosa</i>
Wax Cap, Orange-red	<i>Hygrocybe strangulata</i>
Wax Cap, Yellow	<i>Hygrocybe flavescens</i>
Wax-cap, Parrot	<i>Hygrocybe psittacina</i>
Willow pluteus	<i>Pluteus salicinus</i>
Wood Blewit	<i>Lepista nuda</i>
Wood woolly-foot	<i>Collybia peronata</i>
Woolly fungus	<i>Stereum hirsutum</i>
Yorkshire fungus	<i>Calocera pallidospatulata</i>

REPTILES/AMPHIBIANS

Grass Snake (*Natrix natrix*)
Common Frog (*Rana temporaria*)
Common Toad (*Bufo bufo*)

MAMMALS

Hedgehog (*Erinaceus europaeus*)
Mole (*Talpa europaeus*)
Pygmy Shrew (*Sorex minutus*)
Common Shrew (*Sorex araneus*)
Water Shrew (*Neomys fodiens*)
Bank Vole (*Clethrionomys glareolus*)
Field Vole (*Microtus agrestis*)
Wood Mouse (*Apodemus sylvaticus*)
Brown Rat (*Rattus norvegicus*)
Grey Squirrel (*Sciurus carolinensis*)
Rabbit (*Oryctolagus cuniculus*)
Weasel (*Mustela nivalis*)
American Mink (*Mustela vison*)
Fox (*Vulpes vulpes*)
Daubenton's Bat (*Myotis daubentoni*)
Noctule Bat (*Nyctalus noctula*)
Pipistrelle Bat (*Pipistellus pipistrellus*)
Roe Deer (*Capreolus capreolus*)

BIRDS

Grey Heron (<i>Ardea cinerea</i>)	Chiffchaff (<i>Phylluscopus collybita</i>)
Mute Swan (<i>Cygnus olor</i>)	Wood Warbler (<i>Phylluscopus sibilatrix</i>)
Mallard (<i>Anas platyrhynchos</i>)	Goldcrest (<i>Regulus regulus</i>)
Goosander (<i>Mergus merganser</i>)	Robin (<i>Erithacus rubecula</i>)
Sparrowhawk (<i>Accipiter nisus</i>)	Blackbird (<i>Turdus merula</i>)
Buzzard (<i>Buteo buteo</i>)	Fieldfare (<i>Turdus pilaris</i>)
Kestrel (<i>Falco tinnunculus</i>)	Redwing (<i>Turdus iliacus</i>)
Pheasant (<i>Phasianus colchicus</i>)	Song Thrush (<i>Turdus philomelos</i>)
Moorhen (<i>Gallinula chloropus</i>)	Mistle Thrush (<i>Turdus viscivorus</i>)
Coot (<i>Fulica atra</i>)	Long-tailed Tit (<i>Panurus biarmicus</i>)
Woodcock (<i>Scolopax rusticola</i>)	Coal Tit (<i>Parus ater</i>)
Pomarine Skua (<i>Stercorarius skua</i>)	Great Tit (<i>Parus major</i>)
Black-headed Gull (<i>Larus ridibundus</i>)	Blue Tit (<i>Parus caeruleus</i>)
Wood Pigeon (<i>Columba palumbus</i>)	Nuthatch (<i>Sitta europaea</i>)
Collard Dove (<i>Streptopelia decaocto</i>)	Treecreeper (<i>Certhia familiaris</i>)
Cuckoo (<i>Cuculus canorus</i>)	Wren (<i>Troglodytes troglodytes</i>)
Tawny Owl (<i>Strix aluco</i>)	Brambling (<i>Fringilla montifringilla</i>)
Swift (<i>Apus apus</i>)	Chaffinch (<i>Fringilla coelebs</i>)
Kingfisher (<i>Alcedo atthis</i>)	Goldfinch (<i>Carduelis carduelis</i>)
Green Woodpecker (<i>Picus viridis</i>)	Siskin (<i>Carduelis spinus</i>)
Great Spotted Woodpecker (<i>Dendrocopos major</i>)	Greenfinch (<i>Carduelis chloris</i>)
House Martin (<i>Delichon urbica</i>)	Bullfinch (<i>Pyrrhula pyrrhula</i>)
Pied Wagtail (<i>Motacilla alba</i>)	Redpoll (<i>Acanthis flammea</i>)
Dunnock (<i>Prunella modularis</i>)	House Sparrow (<i>Passer domesticus</i>)
Lesser Whitethroat (<i>Sylvia curruca</i>)	Starling (<i>Sturnus vulgaris</i>)
Garden Warbler (<i>Sylvia borin</i>)	Jay (<i>Garrulus glandarius</i>)
Blackcap (<i>Sylvia atricapilla</i>)	Magpie (<i>Pica pica</i>)
Willow Warbler (<i>Phylluscopus trochilus</i>)	Rook (<i>Corvus frugilegus</i>)
	Carrion Crow (<i>Corvus corone corone</i>)
	Jackdaw (<i>Corvus monedula</i>)

BUTTERFLIES

Small Skipper (*Thymelicus sylvestris*)
 Large Skipper (*Ochlodes venatus*)
 Large White (*Pieris brassicae*)
 Small White (*Artogeia rapae*)
 Green-veined White (*Artogeia napi*)
 Orange Tip (*Anthocharis cardamines*)
 Purple Hairstreak (*Quercusia quercus*)
 Small Copper (*Lycaena phlaeas*)
 Holly Blue (*Celastrina argiolus*)
 Common Blue (*Polyommatus icarus*)
 Peacock Butterfly (*Inachis io*)
 Red Admiral (*Vanessa atalanta*)
 Painted Lady (*Vanessa cardui*)
 Small Tortoiseshell (*Aglais urticae*)
 Comma Butterfly (*Polygonia c-album*)
 Dark Green Fritillary (*Argynnis aglaja*) (1996 is only record)
 Meadow Brown (*Maniola jurtina*)
 Gatekeeper (*Pyronia tithonus*)
 Small Heath (*Coenonympha pamphilus*)
 Speckled Wood (*Pararge aegeria*)
 Wall Brown (*Lasiommata megera*)
 Ringlet (*Aphantopus hyperantus*)

MOTHS

- Ghost Moth (*Hepialus humuli*)
 Orange Swift (*Hepialus sylvina*)
 Gold Swift (*Hepialus hecta*)
 Common Swift (*Hepialus lupulinus*)
 Ectoedemia albifasciella (*Ectoedemia albifasciella*)
 Ectoedemia subbimaculella (*Ectoedemia subbimaculella*)
 Metallic Long-horn (*Nemophora metallica*)
 Long Horned Moth (*Nemophora degeerella*)
 Adela Reaumurella (*Adela reaumurella*)
 Adela Fibulella (*Adela fibulella*)
 Argyresthia goedartella (*Argyresthia goedartella*)
 Bird-cherry Ermine (*Yponomeuta evonymella*)
 Orchard Ermine (*Yponomeuta padella*)
 Honeysuckle Moth (*Ypsolopha dentella*)
 Ypsolopha Scabrella (*Ypsolopha scabrella*)
 Elactrista atricomella (*Elactrista atricomella*)
 Elactrista Luticomella (*Elactrista luticomella*)
 Elactrista canapennella (*Elactrista canapennella*)
 Batia unitella (*Batia unitella*)
 Brown House-moth (*Hofmannophila pseudospretella*)
 White-shouldered House-moth (*Endrosis pseudospretella*)
 Esperia Sulphurella (*Esperia sulphurella*)
 Carcina Quercana (*Carcina quercana*)
 Parsnip Moth (*Depressaria pastinacella*)
 Agapeta Hamana (*Agapeta hamana*)
 Chequered Fruit-tree Tortrix (*Pandemis corylana*)
 Barred Fruit-tree Tortrix (*Pandemis cerasana*)
 Pandemis Cinnamomeana (*Pandemis cinnamomeana*)
 Dark Fruit-tree Tortrix (*Pandemis heparana*)
 Large Fruit-tree Tortrix (*Archips podana*)
 Variegated Golden Tortrix (*Archips xylosteana*)
 Rose Tortrix (*Archips rosana*)
 Carnation Tortrix (*Cacoecimorpha pronubana*)
 Cyclamen Tortrix (*Clepsis spectrana*)
 Light Brown Apple Moth (*Epiphyas postvittana*)
 Lozotaenia Fosterana (*Lozotaenia fosterana*)
 Philedone Gerningana (*Philedone gerningana*)
 Neosphaleroptera Nubilana (*Neosphaleroptera nubilana*)
 Eana incanana (*Eana incanana*)
 Green Oak Tortrix (*Tortrix viridana*)
 Acleris Laterana (*Acleris laterana*)
 Strawberry Tortrix (*Acleris comariana*)
 Acleris Caledoniana (*Acleris caledoniana*)
 Acleris Sparsana (*Acleris sparsana*)
 Rhomboid Tortrix (*Acleris rhombana*)
 Acleris Aspersana (*Acleris aspersana*)
 Acleris Ferrugana (*Acleris ferrugana*)
 Acleris Schalleriana (*Acleris schalleriana*)
 Garden Rose Tortrix (*Acleris variegana*)
 Acleris Hastiana (*Acleris hastiana*)
 Acleris Emargana (*Acleris emargana*)
 Celypha lacunana (*Celypha lacunana*)
 Marbled Orchard Tortrix (*Hedya nubiferana*)
 Epiblema Cynosbatella (*Epiblema cynosbatella*)
 Bramble Shoot Moth (*Epiblema uddmanniana*)
 Epiblema scutulana (*Epiblema scutulana*)
 Eucosma hohewartiana (*Eucosma hohewartiana*)
 Pammene Regiana (*Pammene regiana*)
 Twenty-plume Moth (*Alucita hexadactyla*)
 Chrysoteuchia Culmella (*Chrysoteuchia culmella*)
 Crambus Nemorella (*Crambus nemorella*)
 Agriphila Tristella (*Agriphila tristella*)
 Agriphila Inquinatella (*Agriphila inquinatella*)
 Scoparia Pyralella (*Scoparia pyralella*)
 Scoparia Subfusca (*Scoparia subfusca*)
 Scoparia Ambigualis (*Scoparia ambigualis*)
 Scoparia Ulmella (*Scoparia ulmella*)
 Eudonia Murana (*Eudonia murana*)
 Eudonia Truncicolella (*Eudonia truncicolella*)
 Eudonia Mercurella (*Eudonia mercurella*)
 Eudonia Lineola (*Eudonia lineola*)
 Garden Pebble (*Evergesti forficalis*)
 Pyrausta Aurata (*Pyrausta aurata*)
 Pyrausta Purpuralis (*Pyrausta purpuralis*)
 Small Magpie (*Eurrhyncha hortulata*)
 Eurrhyncha Coronata (*Eurrhyncha coronata*)
 Eurrhyncha Perlucidalis (*Eurrhyncha perlucidalis*)
 Udea Elutalis (*Udea elutalis*)
 Udea Prunalis (*Udea prunalis*)
 Udea olivalis (*Udea olivalis*)
 Rush Veneer (*Nomophila noctuella*)
 Mother of Pearl (*Pleuropteryx ruralis*)
 Gold Triangle (*Hypsopygia costalis*)
 Bee Moth (*Aphomia sociella*)
 Eurhodope Advenella (*Eurhodope advenella*)
 Pyla Fusca (*Pyla fusca*)
 Dioryctria Mutatella (*Dioryctria mutatella*)
 Triangle Plume Moth (*Platyptilia gonodactyla*)
 White Plume Moth (*Pterophorus pentadactyla*)
 Common Plume Moth (*Emmelina monodactyla*)
 December Moth (*Poecilocampa populi*)
 Pebble Hook-tip (*Drepana falcataria*)
 Chinese Character (*Cilix glaucata*)
 Peach Blossom (*Thyatira batis*)
 Buff Arches (*Habrosyne pyritoides*)
 Figure Of Eighty (*Tethea ocularis*)
 Common Lutestring (*Ochropacha duplaris*)
 Yellow Horned (*Achlya flavicornis*)
 Orange Underwing (*Archicaris parthenias*)

March Moth (*Alsophila aescularia*)
 Large Emerald (*Geometra papilionaria*)
 Small Emerald (*Hemistola chrysoprasaria*)
 Clay Triple-lines (*Cyclophora linearia*)
 Cream Wave (*Scopula floslactata*)
 Small Fan-footed Wave (*Idaea biselata*)
 Small Dusty Wave (*Idaea seriata*)
 Single-dotted Wave (*Idaea dimidiata*)
 Riband Wave (*Idaea aversata*)
 Plain Wave (*Idaea straminata*)
 Flame Carpet (*Xanthorhoe designata*)
 Red Twin-spot carpet (*Xanthorhoe spadicearia*)
 Dark-barredTwin-spot Carpet (*Xanthorhoe ferrugata*)
 Silver-ground Carpet (*Xanthorhoe montanata*)
 Garden Carpet (*Xanthorhoe fluctuata*)
 Common Carpet (*Epirrhoe alternata*)
 Wood Carpet (*Epirrhoe rivata*)
 Galium Carpet (*Epirrhoe galiata*)
 Yellow Shell (*Campptogramma bilineata*)
 Shoulder Stripe (*Anticlea badiata*)
 The Streamer (*Anticlea derivata*)
 Dark Spinach (*Pelurga comitata*)
 The Phoenix (*Eulithis prunata*)
 The Chevron (*Eulithis testata*)
 Northern Spinach (*Eulithis populata*)
 The Spinach (*Eulithis mellinata*)
 Barred Straw (*Eulithis pyraliata*)
 Small Phoenix (*Ecliptopera silaceata*)
 Red-green Carpet (*Chloroclysta siterata*)
 Autumn Green Carpet (*Chloroclysta miata*)
 Dark Marbled Carpet (*Chloroclysta citrata*)
 Common Marbled Carpet (*Chloroclysta truncata*)
 Barred Yellow (*Cidaria fulvata*)
 Pine Carpet (*Thera firmata*)
 Grey Pine Carpet (*Thera obeliscata*)
 Spruce Carpet (*Thera britannica*)
 Chestnut-coloured Carpet (*Thera cognata*)
 Broken-barred Carpet (*Electrophaes corylata*)
 July Highflyer (*Hydriomena furcata*)
 November Moth (*Epirrita dilutata*)
 Small Autumnal Moth (*Epirrita filigrammaria*)
 Winter Moth (*Operophtera brumata*)
 Northern Winter Moth (*Operophtera fagata*)
 Small Rivulet (*Perizoma alchemillata*)
 Slender Pug (*Eupithecia tenuiata*)
 Toadflax Pug (*Eupithecia linariata*)
 Foxglove Pug (*Eupithecia pulchellata*)
 Mottled Pug (*Eupithecia exiguata*)
 Lime-speck Pug (*Eupithecia centaureata*)
 Triple-spotted Pug (*Eupithecia trisignaria*)
 Wormwood Pug (*Eupithecia absinthiata*)
 Ling Pug (*Eupithecia goossensata*)
 Currant Pug (*Eupithecia assimilata*)
 Common Pug (*Eupithecia vulgata*)
 White-spotted Pug (*Eupithecia tripunctaria*)
 Grey Pug (*Eupithecia subfuscata*)
 Tawny Speckled Pug (*Eupithecia icterata*)
 Bordered Pug (*Eupithecia succenturiata*)
 Narrow-winged Pug (*Eupithecia nanata*)
 Ash Pug (*Eupithecia fraxinata*)
 Golden-rod Pug (*Eupithecia virgaureata*)
 Brindled Pug (*Eupithecia abbreviata*)
 Juniper Pug (*Eupithecia pusillata*)
 Cypress Pug (*Eupithecia phoeniceata*)
 The V-pug (*Chloroclystis v-ata*)
 Green Pug (*Chloroclystis rectangulata*)
 Double-striped Pug (*Gymnoscelis rufifasciata*)
 Treble-bar (*Aplocera plagata*)
 Lesser Treble Bar (*Aplocera efformata*)
 Chimney Sweeper (*Odezia atrata*)
 Small Yellow Wave (*Hydrelia flammeolaria*)
 Early Tooth-striped (*Trichopteryx carpinata*)
 The Magpie (*Abraxas grossulariata*)
 Clouded Border (*Lomaspilis marginata*)
 The V-moth (*Semiothisa wauaria*)
 Brown Silver-line (*Petrophora chlorosata*)
 Brimstone Moth (*Opisthograptis luteolata*)
 August Thorn (*Ennomos quercinaria*)
 Canary-shouldered Thorn (*Ennomos alniaria*)
 September Thorn (*Ennomos erosaria*)
 Early Thorn (*Selenia dentaria*)
 Lunar Thorn (*Selenia lunularia*)
 Purple Thorn (*Selenia tetralunaria*)
 Scalloped Hazel (*Odontopera bidentata*)
 Scalloped Oak (*Crocallis elinguaris*)
 Swallow-tailed Moth (*Ourapteryx sambucaria*)
 Feathered Thorn (*Colotois pennaria*)
 Pale Brindled Beauty (*Apocheima pilosaria*)
 Peppered Moth (*Biston betularia*)
 Spring Usher (*Agriopsis leucophaearia*)
 Scarce Umber (*Agriopsis aurantiaria*)
 Dotted Border (*Agriopsis marginaria*)
 Mottled Umber (*Erannis defoliaria*)
 Willow Beauty (*Peribatodes rhomboidaria*)
 Feathered Beauty (*Peribatodes secundaria*)
 Mottled Beauty (*Alcis repandata*)
 The Engrailed (*Ectropis bistortata*)
 Small Engrailed (*Ectropis crepuscularia*)
 Grey Birch (*Aethalura punctulata*)
 Bordered White (*Bupalus piniaria*)
 Common White Wave (*Cabera pusaria*)
 Common Wave (*Cabera exanthemata*)
 Clouded Silver (*Lomographa temerata*)
 Light Emerald (*Campaea margaritata*)
 Barred Red (*Hylaea fasciaria*)
 Poplar Hawk-moth (*Laothoe populi*)
 Humming-bird Hawk-moth (*Macroglossum stellatarum*)
 Elephant Hawk-moth (*Deilephila elpenor*)
 Small Elephant Hawk-moth (*Deilephila porcellus*)
 Buff-tip (*Phalera bucephala*)
 Sallow Kitten (*Furcula furcula*)
 Iron Prominent (*Notodonta dromedarius*)
 Pebble Prominent (*Eligmodonta ziczac*)

- Lesser Swallow Prominent (*Pheosia gnoma*)
 Swallow Prominent (*Pheosia tremula*)
 Coxcomb Prominent (*Ptilodon capucina*)
 Pale Prominent (*Pterostoma palpina*)
 Pale Tussock (*Calliteara pudibunda*)
 Common Footman (*Eilema lurideola*)
 White Ermine (*Spilosoma lubricipeda*)
 Buff Ermine (*Spilosoma luteum*)
 The Cinnabar (*Tyria jacobaeae*)
 Short-cloaked Moth (*Nola cucullatella*)
 Least Black Arches (*Nola confusalis*)
 White-line Dart (*Euxoa tritici*)
 Garden Dart (*Euxoa nigricans*)
 Turnip Moth (*Agrotis segetum*)
 Heart And Dart (*Agrotis exclamationis*)
 Dark Sword-grass (*Agrotis ipsilon*)
 Shuttle-shaped Dart (*Agrotis puta*)
 The Flame (*Axylia putris*)
 Flame Shoulder (*Ochropleura plecta*)
 Large Yellow Underwing (*Noctua pronuba*)
 Lesser Yellow Underwing (*Noctua comes*)
 Broad-bordered Yellow Underwing (*Noctua fimbriata*)
 Lesser Broad-bordered Yellow Underwing
 (*Noctua janthina*)
 Least Yellow Underwing (*Noctua interjecta*)
 Double Dart (*Graphiphora augur*)
 Autumnal Rustic (*Paradiarsia glareosa*)
 True Lover's Knot (*Lycophotia porphyrea*)
 Ingrailed Clay (*Diarsia mendica*)
 Purple Clay (*Diarsia brunnea*)
 Setaceous Hebrew Character (*Xestia c-nigrum*)
 Double Square-spot (*Xestia triangulum*)
 Dotted Clay (*Xestia baja*)
 Six-striped Rustic (*Xestia sexstrigata*)
 Square-spot Rustic (*Xestia xanthographa*)
 The Gothic (*Naenia typica*)
 Green Arches (*Anaplectoides prasina*)
 The Shears (*Hada nana*)
 Grey Arches (*Polia nebulosa*)
 Bordered Gothic (*Heliophobus reticulata*)
 Cabbage Moth (*Mamestra brassicae*)
 Dot Moth (*Melanchra persicariae*)
 Beautiful Brocade (*Lacanobia contigua*)
 Pale-shouldered Brocade (*Lacanobia thalassina*)
 Bright-line Brown-eye (*Lacanobia oleracea*)
 Broom Moth (*Ceramica pisi*)
 The Champion (*Hadena rivularis*)
 The Lychnis (*Hadena bicurris*)
 Antler Moth (*Cerapteryx graminis*)
 Hedge Rustic (*Tholera cespitis*)
 Small Quaker (*Orthosia cruda*)
 Lead-coloured Drab (*Orthosia populeti*)
 Powdered Quaker (*Orthosia gracilis*)
 Common Quaker (*Orthosia stabilis*)
 Clouded Drab (*Orthosia incerta*)
 Twin-spotted Quaker (*Orthosia munda*)
 Hebrew Character (*Orthosia gothica*)
 Brown-line Bright-eye (*Mythimna conigera*)
 The Clay (*Mythimna ferrago*)
 Smoky Wainscot (*Mythimna impura*)
 Common Wainscot (*Mythimna pallens*)
 White-speck (*Mythimna unipuncta*)
 The Shark (*Cucullia umbratica*)
 Northern Deep-brown Dart (*Aporophyla lutulent
 lueneburgensis*)
 Blair's Shoulder-knot (*Lithophane leautieri*)
 Red Sword-grass (*Xylena vetusta*)
 Early Grey (*Xylocampa areola*)
 Green-brindled Crescent (*Allophyes
 oxyacanthae*)
 Merveille-du-jour (*Dichonia aprilina*)
 Grey Chi (*Antitype chi*)
 The Satellite (*Eupsilia transversa*)
 The Chestnut (*Conistra vaccinii*)
 Dark Chestnut (*Conistra ligula*)
 The Brick (*Agrochola circellaris*)
 Red-line Quaker (*Agrochola lota*)
 Yellow-line Quaker (*Agrochola macilentata*)
 Brown-spot Pinion (*Agrochola litura*)
 Centre-barred Sallow (*Atethmia centrago*)
 Lunar Underwing (*Omphaloscelis lunosa*)
 Orange Sallow (*Xanthia citrigo*)
 The Sallow (*Xanthia icteritia*)
 Dusky-lemon Sallow (*Xanthia gilvago*)
 Poplar Grey (*Acronicta megacephala*)
 Grey Dagger (*Acronicta psi*)
 Knot Grass (*Acronicta rumicis*)
 Marbled Beauty (*Cryphia domestica*)
 Copper Underwing (*Amphipyra pyramidea*)
 Svensson's Copper Underwing (*Amphipyra
 berbera*)
 Mouse Moth (*Amphipyra tragopogonis*)
 Bird's Wing (*Dypterygia scabriuscula*)
 Brown Rustic (*Rusina ferruginea*)
 Small Angle Shades (*Euplexia lucipara*)
 Angle Shades (*Phlogophora meticulosa*)
 Angle-stripes Sallow (*Enargia paleacea*)
 The Dun-bar (*Cosmia trapezina*)
 Dark Arches (*Apamea monoglypha*)
 Light Arches (*Apamea lithoxyloa*)
 Clouded-bordered Brindle (*Apamea crenata*)
 Dusky Brocade (*Apamea remissa*)
 Small Clouded Brindle (*Apamea unanimitis*)
 Rustic Shoulder-knot (*Apamea sordens*)
 Slender Brindle (*Apamea scolopacina*)
 Double Lobed (*Apamea ophiogramma*)
 Marbled Minor (*Oligia strigilis*)
 Rufous Minor (*Oligia versicolor*)
 Tawny Marbled Minor (*Oligia latruncula*)
 Middle-barred Minor (*Oligia fasciuncula*)
 Cloaked Minor (*Mesoligia furuncula*)
 Rosy Minor (*Mesoligia literosa*)
 Common Rustic (*Mesapamea secalis*)
 Lesser Common Rustic (*Mesapamea didyma*)
 Flounced Rustic (*Luperina testacea*)

Ear Moth (*Amphipoea oculea*)
Rosy Rustic (*Hydraecia micacea*)
Frosted Orange (*Gortyna flavago*)
The Crescent (*Celaena leucostigma*)
Large Wainscot (*Rhizedra lutosa*)
The Uncertain (*Hoplodrina alsines*)
The Rustic (*Hoplodrina blanda*)
Mottled Rustic (*Caradrina morpheus*)
Pale Mottled Willow (*Caradrina clavipalpis*)
Scarce Silver Lines (*Bena prasinana*)
Green Silver-lines (*Pseudoips fagana*)
Burnished Brass (*Diachrysia chrysis*)
Golden Plusia (*Polychrysia moneta*)

Lempke's Gold Spot (*Plusia putnami*)
Silver Y (*Autographa gamma*)
Beautiful Golden Y (*Autographa pulchrina*)
Plain Golden Y (*Autographa jota*)
Gold Spangle (*Autographa bractea*)
Scarce Silver Y (*Syngrapha interrogationis*)
Dark Spectacle (*Abrostola trigemina*)
The Spectacle (*Abrostola triplasia*)
Red Underwing (*Catocala nupta*)
The Herald (*Scoliopteryx libatrix*)
The Snout (*Hypena proboscidalis*)
The Fan-foot (*Herminia tarsipennalis*)
Small Fan-foot (*Herminia nemoralis*)

Fresh Water Life

Leeds Liverpool Canal

Fish:

Pike (*Esox lucius*)
 Carp (*Cyprinus carpio*)
 Gudgeon (*Gobio gobio*)
 Roach (*Rutilus rutilus*)
 Rudd (*Scardinius erythrophthalmus*)
 Chub (*Squalius cephalus*)
 Tench (*Tinca tinca*)
 Bream (*Abramis brama*)
 Stone Loach (*Nemacheilus barbatula*)
 Perch (*Perca fluviatilis*)
 Ruffe (*Acerina cernua*)
 Bullhead (*Cottus gobio*)
 Stickleback (*Gasterosteus aculeatus*)

Other Life

Grass Snake (*Natrix natrix*)
 Newt (*Triturus*)
 Frog (*Rana temporaria*)
 Leech
 Snails
 Swan Mussel (*Anodonta cygnea*)
 Freshwater Shrimp (*Gammarus*)
 Crayfish
 Dragonfly /Damsel Fly Larvae
 Water Scorpion (*Nepa cinerea*)
 Water Boatman (*Notonecta*)
 Caddis Larvae
 Blood Worm (*Chironomus*)
 Water Vole (*Arvicola terrestris*)
 Mink (*Mustela vison*)

River Aire

Fish:

Trout (*Salar trutta*)
 Pike (*Esox lucius*)
 Barbel (*Barbus barbus*)
 Gudgeon (*Gobio gobio*)
 Roach (*Rutilus rutilus*)
 Minnow (*Phoxinus phoxinus*)
 Dace (*Leuciscus leuciscus*)
 Chub (*Squalius cephalus*)
 Bream (*Abramis brama*)
 Stone Loach (*Nemacheilus barbatula*)
 Perch (*Perca fluviatilis*)
 Bullhead (*Cottus gobio*)
 Stickleback (*Gasterosteus aculeatus*)

Other Life

Frog (*Rana temporaria*)
 Leech
 Snails
 Freshwater Shrimp (*Gammarus*)
 Crayfish
 Water Scorpion (*Nepacineria*)
 Waterboatman (*Notonecta*)
 Caddis Larvae
 Blood Worm (*Chironomus*)
 Water Vole (*Arvicola terrestris*)
 Mink (*Mustela vison*)

BUCK WOOD

**REPORT OF
NATIONAL VEGETATION CLASSIFICATION
(NVC) SURVEY**

commissioned by the Friends of Buck Wood

BY

GEOFFREY WILMORE BA (Hons) FLS

Ecological Consultant

August 2005

BUCK WOOD

Grid Reference - SE 175395 (approx. centre of site)

REPORT OF NATIONAL VEGETATION CLASSIFICATION (NVC) SURVEY

INTRODUCTION

A botanical survey of Buck Wood has been commissioned by Dr Christine and Mr. Norman Alvin on behalf of the Friends of Buck Wood, to investigate and determine how the site fits into the National Vegetation Classification (NVC) System, which, in recent years, has become the yardstick by which all semi-natural habitats and vegetation communities throughout the British Isles are evaluated.

It should be stressed at the outset that not all vegetation communities are susceptible of NVC evaluation - the heterogeneous vegetation communities within and around the 'tip' area on the southern edge of the site are a case in point. Here the vegetation is too disturbed and fragmented to be capable of easy NVC interpretation. Similarly, conifer plantations are not included within the NVC system. The scatter of planted pine within the site, however, occupies a relatively small area within the whole woodland, integrates well with the deciduous component, and can be effectively ignored for the purposes of NVC evaluation.

Buck Wood occupies an area of relatively level to steeply sloping ground north of Thackley, encompassing a broad semi-circular zone rising south from the Leeds-Liverpool Canal. The general altitude ranges between approximately 60m along the canal towpath, to 135m. along the adjacent Ainsbury Avenue. The site comprises a mixture of habitats including 1) broad-leaved woodland, 2) mixed (deciduous/coniferous) plantation, 3) a small marshland area within the woodland, 4) discrete areas of semi-improved neutral horse-grazed pasture and 5) a 'tip' area, which is atypical of the rest of the site.

METHODOLOGY

Field Survey comprised a walk-over survey conducted on 23 July 2005, when all five major habitats listed above were examined. Plant species lists were taken for 1) the total woodland area; 2) the small marshland zone; 3) the discrete areas of horse-grazed pasture and 4) the 'tip' area, and form Appendices 1 -4 to this Report.

The NVC system can be adapted to a walk-over survey quite easily, the methodology being to identify the essential or 'character' species of different stands of vegetation and give them some arbitrary Domin (frequency) ranking. These 'character' species lists are then fed into the MATCH Computer Program which determines the best-fit against the national Conspectus of Vegetation Types, - a directory of over 30,000 vegetation evaluations held in the MATCH Program. The results of this MATCH analysis are shown in Appendix 5 to this Report.

A colour coded Phase 1 Habitat map of the site has also been prepared, showing the major NVC communities by code number, and showing areas within the woodland where mosaics of NVC communities (W10 and W16) occur, which are incapable of absolute demarcation.

The following Report of Survey is in three parts: 1) Vegetation Communities; 2) NVC Evaluation and 3) Ecological Appraisal and Summary.

VEGETATION COMMUNITIES

This section of the Report describes items 1) to 4) in the first paragraph of Methodology (above), for which plant species lists were taken (see Appendices 1- 4).

1) The Total Woodland Area

The woodland element of Buck Wood largely comprises deciduous semi-natural woodland, interspersed in one area by locally frequent planted coniferous species.

There are three or four major tree species which are frequent and widespread throughout much of the site. Oak (*Quercus* spp.) occurs as pedunculate oak (*Quercus robur*), sessile oak (*Q. petraea*) and the hybrid (*Q. x rosacea*), and is probably the most widespread and abundant tree. Silver and downy birch (*Betula pendula*, *B. pubescens*) are also abundant in many areas, particularly in association with oak on more acidic sloping terrain, while beech (*Fagus sylvatica*) forms impressive, presumably planted stands in several areas, but especially at and near the north-eastern end of the site. Sycamore (*Acer pseudoplatanus*) is also widespread and locally frequent, often on slightly more neutral soils. Other deciduous canopy species are of scattered or rare occurrence, being represented by occasional ash (*Fraxinus excelsior*), sweet chestnut (*Castanea sativa*), scattered rowan (*Sorbus aucuparia*), rare wych elm (*Ulmus glabra*) and Swedish whitebeam (*Sorbus intermedia*), and, where the pylon line has had a swathe of canopy woodland cut through to accommodate it, one finds scattered regenerating young and intermediate goat willow (*Salix caprea*) and grey willow (*S. cinerea*). The planted coniferous element is located along a fairly narrow belt of the central and east-central sectors of the site and comprises Scots pine (*Pinus sylvestris*), associated with a matrix of deciduous species.

Regeneration is generally good among the broadleaved species, with oak, birch, rowan and the sporadic ash all showing good spontaneous growth, while beech is regenerating very well indeed in some areas, but, in the nature of the species, many seedlings are likely to abort as an abundant flush of young growth in some areas competes for space and light beneath a habitually dense canopy cover of the parent tree. No active regeneration was observed among the conifers.

There is a quantity of dead standing and fallen timber throughout the woodland, and several very old stumps which are at various stages of decomposition. These features all provide suitable niches for fungi and invertebrates to colonise.

The shrub layer is dominated by holly (*Ilex aquifolium*), which is widespread and abundant in many areas and is showing reasonable regeneration. Other shrub species are of scattered or scarce occurrence, and comprise hawthorn (*Crataegus monogyna*), hazel (*Corylus avellana*) and elder (*Sambucus nigra*), the latter species being locally frequent on sloping ground towards the north-eastern end of the woodland where there has been locally serious fly tipping downslope.

The herb layer throughout much of the woodland is dominated by bramble (*Rubus fruticosus*), bracken (*Pteridium aquilinum*) and creeping soft grass (*Holcus mollis*), associated with locally frequent bluebell (*Hyacinthoides non-scripta*), common bent (*Agrostis capillaris*) and wood millet (*Milium effusum*), and scattered hedge woundwort (*Stachys sylvatica*), broad buckler fern (*Dryopteris dilatata*) and male fern (*D. filix-mas*). Where outcropping Millstone Grit rocks appear at

the surface, and sloping ground with thinner soils promotes a more acidic vegetation, wavy hair grass (*Deschampsia flexuosa*) becomes locally frequent or abundant, together with scattered heather (*Calluna vulgaris*) and mixed with sparser *Holcus mollis* and other scattered species. Elsewhere, and especially under beech, a bare-ish herb layer is often found.

Some parts of the site, especially near entrances and in the vicinity of fields and the 'tip' area, have become more disturbed, and here typical weed species are encountered, including nettle (*Urtica dioica*), rosebay willowherb (*Chamerion angustifolium*), hogweed (*Heracleum sphondylium*), cock's-foot (*Dactylis glomerata*), bearded couch (*Elymus caninus*), Yorkshire fog (*Holcus lanatus*) and cleavers (*Galium aparine*). A particular problem is encountered in several areas with invasive Himalayan balsam (*Impatiens glandulifera*), which is locally abundant and rampant, sometimes associated in more nutrient-rich lower parts of the site with nettle (*Urtica dioica*).

2) The Small Marshland Zone

This small zone, albeit within the woodland area, is a distinct habitat feature unlike any other part of the woodland herb layer. It is located in the south-central sector of the site and is identified on the habitat map by the marshland/marshy grassland colour coding.

There is, habitually, an area of seepage here downslope, (which was dry at the time of survey), but the area is seasonally wet and this has encouraged a small zone of mixed marshland and semi-aquatic vegetation to develop. This marshland, suffering at present from the dryness of the season, is somewhat depauperate and less well developed than has been known in other years, but still contains the nucleus of a small wetland community of plants. Small sweet grass (*Glyceria declinata*) and floating sweet grass (*G. fluitans*) are here in small numbers, together with scattered numbers of soft rush (*Juncus effusus*), marsh bedstraw (*Galium palustre*), bog stitchwort (*Stellaria uliginosa*), remote sedge (*Carex remota*), wavy bittercress (*Cardamine flexuosa*), common water starwort (*Callitriche stagnalis*) growing on wet mud, and scattered lesser spearwort (*Ranunculus flammula*) and yellow pimpernel (*Lysimachia nemorum*). The edges of the marshland zone have largely dried out and some incipient goat willow (*Salix caprea*) and grey sallow (*S. cinerea*) are beginning to colonise, together with drier ground herbs such as creeping soft-grass (*Holcus mollis*), hedge woundwort (*Stachys sylvatica*) and creeping buttercup (*Ranunculus repens*).

3) The Areas of Horse-grazed Pasture

Several semi-improved neutral horse-grazed pastures are located within and around the perimeter of the woodland. These grasslands contain a range of common and widespread herbs and forbs typical of such habitats in a wide range of situations throughout West Yorkshire.

The sward in all the fields contains a small number of frequently occurring species, including perennial rye-grass (*Lolium perenne*), common bent (*Agrostis capillaris*), sweet vernal-grass (*Anthoxanthum odoratum*), red and white clover (*Trifolium pratense*, *T. repens*), crested dog's-tail (*Cynosurus cristatus*), Yorkshire-fog (*Holcus lanatus*), creeping and meadow buttercup (*Ranunculus repens*, *R. acris*) and cock's-foot (*Dactylis glomerata*). The constant grazing pressure by horses and their habit of dunging in selected areas of the fields, has encouraged the spread of undesirable weed species including, primarily, ragwort (*Senecio jacobaea*), which is locally abundant in some areas, but also nettle (*Urtica dioica*), creeping thistle (*Cirsium arvense*) and broad-leaved dock (*Rumex obtusifolius*).

Other herbs of less widespread occurrence include common mouse-ear (*Cerastium fontanum*), black medick (*Medicago lupulina*), cat's-ear (*Hypochaeris radicata*), ribwort plantain (*Plantago lanceolata*), self-heal (*Prunella vulgaris*), bush vetch (*Vicia sepium*) and common sorrel (*Rumex acetosa*), while several taller grass species occur on headlands and in ranker edge situations, including false oat-grass (*Arrhenatherum elatius*), couch grass (*Elytrigia repens*), timothy (*Phleum pratense*) and meadow foxtail (*Alopecurus pratensis*).

4) The 'Tip' Area

This is a zone of heterogeneous and still developing vegetation communities which occupy an area of tipped land near the southern entrance to the woodland off Ainsbury Avenue.

Some parts of this area still have bare ground, not colonised by vegetation, while elsewhere there is essentially a mixture of ruderal, tall herbage, areas of neutral rough grassland and fringing scrub and tree cover merging into the adjacent woodland around the edges of the area. It is difficult to present any homogeneity in terms of vegetation structure, as the plant communities have developed in response to the varied substrates and soil types which have evolved as a result of man's activities here.

The rough grassland zone occupies the largest central area of the site and contains, typically, locally frequent black knapweed (*Centaurea nigra*), associated with a range of common species, such as common bent (*Agrostis capillaris*), crested dog's-tail (*Cynosurus cristatus*), cock's-foot (*Dactylis glomerata*), Yorkshire-fog (*Holcus lanatus*), false oat-grass (*Arrhenatherum elatius*), perennial rye-grass (*Lolium perenne*), red fescue (*Festuca rubra*), red and white clover (*Trifolium pratense*, *T. repens*) and ribwort plantain (*Plantago lanceolata*).

Elsewhere, a taller ruderal vegetation is characterised by locally abundant rosebay willowherb (*Chamerion angustifolium*), bramble (*Rubus fruticosus*), creeping thistle (*Cirsium arvense*), ragwort (*Senecio jacobaea*) and tansy (*Tanacetum vulgare*).

The site also contains various planted exotic shrubs, such as brideworts (*Spiraea* spp.) which are locally abundant in one or two areas, in addition to garden rose varieties (*Rosa* spp.) and cotoneasters (*Cotoneaster* spp.). Scattered to locally frequent scrub of silver birch (*Betula pendula*) and ash (*Fraxinus excelsior*) is also found, together with locally abundant broom (*Cytisus scoparius*).

NVC EVALUATION

1) Woodland

The woodland structure falls into two major NVC types which are related to the varying acidity or neutrality of the soil overlying the Millstone Grit substrate. In some areas, a mosaic of the two types occurs, where elements of both intergrade and no easy demarcation is possible.

In less acidic situations, a community of pedunculate oak (*Quercus robur*), silver and hairy birch (*Betula pendula*, *B. pubescens*), sycamore (*Acer pseudoplatanus*) and planted beech (*Fagus sylvatica*) is widely represented, associated with scattered rowan (*Sorbus aucuparia*) and a frequent shrub layer of holly (*Ilex aquifolium*). The herb layer in these situations tends to be dominated by bracken (*Pteridium aquilinum*), bramble (*Rubus fruticosus*) and creeping soft-grass (*Holcus mollis*), with widespread but subordinate bluebell (*Hyacinthoides non-scripta*), locally frequent wood millet (*Milium effusum*), scattered hedge woundwort (*Stachys sylvatica*) and dryopteroid ferns (*Dryopteris*

dilatata, *D. filix-mas*). This community matches quite well with **W10 — *Quercus robur* — *Pteridium aquilinum* — *Rubus fruticosus* woodland** in the NVC system, and a MATCH analysis is presented in Appendix 5.

A more acidic and more species-poor woodland type is encountered on steeper slopes, where soil cover is thinner, and in the vicinity of outcropping Millstone Grit rocks and boulders. While this community also contains oak, this time it tends to be sessile oak (*Quercus petraea*) or the hybrid (*Q. x rosacea*), together with silver and hairy birch as before, some holly and rowan, but with few other tree or shrub species. The herb layer is similarly depauperate, but, importantly, contains a key indicator species, wavy hair-grass (*Deschampsia flexuosa*) which is a 'character' species in the determination of this NVC type. *Deschampsia flexuosa* is only ever a minor or insignificant constituent of W10 woodland, while here it forms an important single element in the sparser herb layer vegetation structure. This woodland type has affinity with **W16 — *Quercus* spp. — *Betula* spp. — *Deschampsia flexuosa* woodland**. A MATCH analysis is similarly presented in Appendix 5.

2) Grassland

The horse-grazed neutral pastures are relatively species poor and contain a number of weedy species consequent upon the horse grazing pressure. They are, however, semi-improved grasslands which contain a moderate number of herbs and forbs, as opposed to 'improved' species-poor ley crop grasslands sown for a specific agricultural purpose.

The range of species present in these fields is dominated by a handful of common and widespread plants, including perennial lye-grass (*Lolium perenne*), common bent (*Agrostis capillaris*), crested dog's-tail (*Cynosurus cristatus*), red and white clover (*Trifolium pratense*, *T. repens*), Yorkshire-fog (*Holcus lanatus*), sweet vernal-grass (*Anthoxanthum odoratum*) and minor constituents such as ribwort plantain (*Plantago lanceolata*), cat's-ear (*Hypochaeris radicata*), self-heal (*Prunella vulgaris*) and black medick (*Medicago lupulina*). This semi-improved neutral grassland type fits the **MG6 — *Lolium perenne* — *Cynosurus cristatus* grassland** type quite well. A MATCH analysis is presented in Appendix 5.

As stated above, no NVC evaluation is possible for the 'Tip' area.

ECOLOGICAL APPRAISAL AND SUMMARY

Buck Wood contains a range of habitats and vegetation communities, as detailed above. The major community is represented by the woodland, which is well used by the public and has experienced a degree of fly-tipping in some areas, which has encouraged the spread of undesirable weed species such as Himalayan balsam (*Impatiens glandulifera*) and nettle (*Urtica dioica*).

Notwithstanding this human pressure, the woodland contains representative examples of two NVC types and shows good regeneration of the major tree and shrub species. It is an important reservoir for wildlife in the local context of Thackley and the surrounding area and is an ecologically dynamic and viable self-perpetuating system.

The horse-grazed pastures contain a range of common and widespread herbs and forbs and have been invaded by various undesirable weed species as a result of grazing pressure. They are of only very moderate ecological interest, as numerous examples of this habitat type are found elsewhere throughout West Yorkshire.

BUCK WOOD - PLANT SPECIES LISTS**APPENDIX 1****WOODLAND**

<u>Species</u>	<u>English</u>
Acer pseudoplatanus	Sycamore
Agrostis capillaris	Common Bent
Alliaria petiolata	Hedge Garlic
Arrhenatherum elatius	False Oat-grass
Betula pendula	Silver Birch
Betula pubescens	Downy Birch
Blechnum spicant	Hard Fern
Bromopsis ramosa	Hairy Brome
Calluna vulgaris	Heather
Calystegia silvatica	Large Bindweed
Castanea sativa	Sweet Chestnut
Chamerion angustifolium	Rosebay Willowherb
Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Dactylis glomerata	Cock's-foot
Deschampsia cespitosa	Tufted Hair-grass
Deschampsia flexuosa	Wavy Hair-grass
Digitalis purpurea	Foxglove
Dryopteris dilatata	Broad Buckler-fern
Dryopteris filix-mas	Male Fern
Elymus caninus	Bearded Couch
Epilobium hirsutum	Great Willowherb
Epilobium montanum	Broad-leaved Willowherb
Fagus sylvatica	Beech
Festuca gigantea	Giant Fescue
Fraxinus excelsior	Ash
Galium aparine	Cleavers
Geum urbanum	Wood Avens
Hedera helix	Ivy
Heracleum sphondylium	Hogweed
Holcus lanatus	Yorkshire-fog
Holcus mollis	Creeping Soft-grass
Hyacinthoides non-scripta	Bluebell
Hypochaeris radicata	Cat's-ear
Ilex aquifolium	Holly
Impatiens glandulifera	Himalayan Balsam
Juncus effusus	Soft Rush
Ligustrum ovalifolium	Cultivated Privet
Luzula sylvatica	Great Woodrush
Milium effusum	Wood Millet
Pinus sylvestris	Scots Pine

<i>Poa annua</i>	Annual Meadow-grass
<i>Poa trivialis</i>	Rough-stalked Meadow-grass
<i>Populus x canadensis</i>	Black Italian Poplar
<i>Prunus avium</i>	Wild Cherry
<i>Pteridium aquilinum</i>	Bracken
<i>Quercus petraea</i>	Sessile Oak
<i>Quercus robur</i>	Pedunculate Oak
<i>Quercus x rosacea</i>	Hybrid Oak
<i>Rubus fruticosus</i> agg.	Bramble
<i>Salix caprea</i>	Goat Willow
<i>Salix cinerea</i>	Grey Sallow
<i>Sambucus nigra</i>	Elder
<i>Scrophulana nodosa</i>	Common Figwort
<i>Senecio jacobaea</i>	Ragwort
<i>Sorbus aucuparia</i>	Rowan
<i>Sorbus intermedia</i>	Swedish Whitebeam
<i>Stachys sylvatica</i>	Hedge Woundwort
<i>Ulex europaeus</i>	Common Gorse
<i>Ulmus glabra</i>	Wych Elm
<i>Urtica dioica</i>	Common Nettle

BUCK WOOD - PLANT SPECIES LISTS**APPENDIX 2****SMALL MARSHLAND AREA (within woodland)**

<u>Species</u>	<u>English</u>
Betula x aurata	Hybrid Birch
Callitriche stagnalis	Common Water-starwort
Cardamine flexuosa	Wavy Bittereress
Carex remota	Remote Sedge
Dryopteris dilatata	Broad Buckler-fern
Epilobium ciliatum	American Willowherb
Galium palustre ssp. palustre	Marsh Bedstraw
Glyceria declinata	Small Sweet-grass
Glyceria fluitans	Floating Sweet-grass
Holcus mollis	Creeping Soft-grass
Juncus effusus	Soft Rush
Lysimachia nemorum	Yellow Pimpernel
Ranunculus flammula	Lesser Spearwort
Ranunculus repens	Creeping Buttercup
Rubus fruticosus agg.	Bramble
Salix caprea	Goat Willow
Salix cinerea	Grey Sallow
Scrophularia nodosa	Common Figwort
Stachys sylvatica	Hedge Woundwort
Stellaria uliginosa	Bog Stitchwort
Urtica dioica	Common Nettle

BUCK WOOD - PLANT SPECIES LISTSAPPENDIX 3NEUTRAL PASTURES — HORSE GRAZEDSpecies

Agrostis capillaris
 Alopecurus pratensis
 Anthoxanthum odoratum
 Anthriscus sylvestris
 Arrhenatherum elatius
 Cerastium fontanum
 Cirsium arvense
 Cynosurus cristatus
 Dactylis glomerata
 Elytrigia repens
 Galium aparine
 Holcus lanatus
 Holcus mollis
 Hypochaeris radicata
 Lolium perenne
 Medicago lupulina
 Phleum pratense
 Plantago lanceolata
 Prunella vulgaris
 Ranunculus acris
 Ranunculus repens
 Rumex acetosa
 Rumex obtusifolius
 Senecio jacobaea
 Taraxacum agg.
 Trifolium pratense
 Trifolium repens
 Urtica dioica
 Vicia sepium

English

Common Bent
 Meadow Foxtail
 Sweet Vernal-grass
 Cow Parsley
 False Oat-grass
 Common Mouse-ear
 Creeping Thistle
 Crested Dog's-tail
 Cock's-foot
 Couch Grass
 Cleavers
 Yorkshire-fog
 Creeping Soft-grass
 Cat's-ear
 Perennial Rye-grass
 Black Medick
 Timothy
 Ribwort Plantain
 Self-heal
 Meadow Buttercup
 Creeping Buttercup
 Common Sorrel
 Broad-leaved Dock
 Ragwort
 Dandelions
 Red Clover
 White Clover
 Common Nettle
 Bush Vetch

BUCK WOOD - PLANT SPECIES LISTSAPPENDIX 4'TIP' AREASpecies

Agrostis capillaris
 Arrhenatherum elatius
 Artemisia vulgaris
 Betula pendula
 Centaurea nigra
 Cerastium fontanum
 Chamerion angustifolium
 Cirsium arvense
 Cirsium vulgare
 Cotoneaster spp.
 Cynosurus cristatus
 Cytisus scoparius ssp. scoparius
 Dactylis glomerata
 Festuca rubra
 Fraxinus excelsior
 Heracleum sphondylium
 Holcus lanatus
 Lolium perenne
 Odontites vernus
 Plantago lanceolata
 Plantago major
 Rosa spp.
 Rubus fruticosus agg.
 Rumex acetosa
 Salix caprea
 Senecio jacobaea
 Spiraea agg.
 Tanacetum vulgare
 Taraxacum agg.
 Trifolium pratense
 Trifolium repens
 Trisetum flavescens
 Ulex europaeus

English

Common Bent
 False Oat-grass
 Mugwort
 Silver Birch
 Black Knapweed
 Common Mouse-ear
 Rosebay Willowherb
 Creeping Thistle
 Spear Thistle
 Cotoneasters
 Crested Dog's-tail
 Broom
 Cock's-foot
 Red Fescue
 Ash
 Hogweed
 Yorkshire-fog
 Perennial Rye-grass
 Red Bartsia
 Ribwort Plantain
 Great Plantain
 Garden Roses (unid.)
 Bramble
 Common Sorrel
 Goat Willow
 Ragwort
 Brideworts
 Tansy
 Dandelions
 Red Clover
 White Clover
 Yellow Oat-grass
 Common Gorse

BUCK WOOD**APPENDIX 5****NVC MATCH ANALYSIS**

The following MATCH analyses are derived from taking representative frequencies of the tree, shrub and herb layer cover at various locations throughout the site. A MATCH percentage of more than 40% is considered to be a very good match in NVC terms.

Woodland

<u>Species</u>	<u>Domin</u>
Quercus robur	6
Acer pseudoplatanus	4
Fagus sylvatica	3
Betula pendula	4
Betula pubescens	4
Ilex aquifolium	3
Pteridium aquilinum	6
Holcus mollis	3
Rubus fruticosus	4
Hyacinthoides non-scripta	2
Milium effusum	1

MATCH Analysis - W10 - *Quercus robur* - *Pteridium aquilinum* - *Rubus fruticosus* woodland

- 44.6 % Match

<u>Species</u>	<u>Domin</u>
Quercus petraea	4
Betula pendula	4
Betula pubescens	3
Sorbus aucuparia	1
Ilex aquifolium	3
Deschampsia flexuosa	4
Pteridium aquilinum	3
Holcus mollis	2

MATCH Analysis - W16 - *Quercus spp.* - *Betulu spp.* - *Deschampsia flexuosa* woodland

- 50.1 % Match

Grassland

<u>Species</u>	<u>Domin</u>
Lolium perenne	6
Cynosurus cristatus	3
Agrostis capillaris	2
Trifolium repens	3
Trifolium pratense	2
Anthoxanthum odoratum	2
Holcus lanatus	2
Plantago lanceolata	3
Prunella vulgaris	2
Senecio jacobaea	3
Cirsium arvense	2

MATCH Analysis - MG6 - *Lolium perenne* - *Cynosurus cristatus* grassland

- 53.2 % Match

Explanation of Domin Scale Frequencies

Cover of 91 — 100% is recorded as Domin	10
76—90%	9
51- 75%	8
34—50%	7
26—33%	6
11~25%	5
4—10%	4
less than 4% - with many individuals	3
less than 4% - with several individuals	2
less than 4% - with few individuals	1

BUCK WOOD**KEY TO HABITAT COLOUR CODES ON SITE MAP**




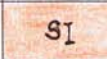





Broad-leaved Woodland	
Mixed Plantation Woodland	
Scrub Woodland	
Semi-improved Neutral Grassland	
Marshland/Marshy Grassland	
Tall Ruderal (Weedy) Vegetation	
Ephemeral/Short Perennial Vegetation	
Bare Ground	
Site Boundary	

FIG 1

Plan of Buck Wood and surrounding area

