

## A CHECKLIST OF THE VASCULAR PLANTS OF WICKEN FEN

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### *Introduction*

The National Nature Reserve at Wicken Fen is exceptionally rich in vascular plants (flowering plants, ferns and their allies). Over 300 species have been recorded since 1980 and the total confirmed for the Fen since the National Trust acquired the site comfortably exceeds 400. Although the main botanical interest in the Fen derives from its wetland flora, drier habitats permit a large range of other species to occur. A policy of conservation management and habitat creation has helped to augment this diversity.

### *Lay-out of the Checklist:*

The checklist is divided into four parts on the basis of the age or reliability of the record. Part I lists those species whose presence at Wicken has been confirmed since 1980, arranged by family with the flowering plants first (A), and then the ferns and their allies (B). Parts II and III list species certainly recorded at Wicken Fen before 1980, but which have not been seen here since, either because they may have been overlooked (Part II) or because they are thought to be extinct (Part III). Finally, Part IV lists those species which have been recorded for the Fen, but where some doubt is attached to the record.

Within each part family, the plants are arranged alphabetically by their scientific name, with the standard English name given in brackets. Both types of name are as given in: Stace, C. (1991) *The New Flora of the British Isles*. Cambridge University Press, Cambridge. Where a plant was introduced or planted at Wicken Fen, it is marked in the checklist with an asterisk (\*), and if it is not native at Wicken, with the symbol: @.

### *Botanical Recording At Wicken Fen:*

The checklist updates Dr S.M.Walters' "Guides to Wicken Fen. No. 3: List of the Vascular Plants of Wicken Fen" published by the National Trust in 1967. It includes contributions from many botanists and naturalists, some of them regular visitors to the Fen, others who have only come once to the site. These records have been compiled by the Botanical Secretary of the National Trust's Wicken Fen Management Committee. Effective conservation and management depend on these records being kept up to date. If on your visit, you 1) record a new species for the Fen; 2) re-find one listed in the checklist as extinct or overlooked; or 3) make a significant addition to the notes on habitat or distribution given below, please send your record(s) to: *The Botanical Secretary c/o The National Trust, Wicken Fen NNR, Lode Lane, Wicken, ELY, CB7 5XP.*

### *Fen Habitats:*

Open water - all types, including the major navigable drains ("lodes") as well as smaller ditches, excavated meres and old flooded brick pits.

Tall fen - vegetation in water-logged soils, where water may stand in winter. Dominated by tall herbaceous plants e.g. reeds and sedges.

Litter - differs from tall fen in being annually cut, and dominated by coarse grasses and rushes, often in a colourful lush "hay meadow".

Wet grassland - closely related to litter, but mown more than once each year. Dominated by short turf-forming grasses, sedges and rushes - this habitat is best developed along the droves (tracks) and paths.

Carr - fenland scrub dominated by willows, buckthorns and other shrubs. In drier sites, "carr" may develop into taller woodland.

### *Other Habitats:*

Dry grassland - often occurs mixed with wet grassland (but with sedges and rushes rare) in better drained sites, and most extensive in the higher ground toward Wicken village.

Rough grassland - similar to the latter, but usually cut only once each year, and most common on ditch-banks and other marginal habitats.

Drier disturbed places - disturbance may be due to trampling, burning or ditch-cleaning. The most extensive disturbed areas are those derived from arable land between Priory Farm and Monk's Lode.

Wet disturbed places - occur naturally where wet mud is exposed by falling water-levels in late summer, as well as on recently dumped spoil and in ruts.

I. Species Recorded at Wicken Fen since 1980 with a summary of their major habitats and abundance

A. FLOWERING PLANTS (SPERMATOPHYTA - PINOPSIDA and MAGNOLIOPSIDA)

ALISMATACEAE

*Alisma lanceolatum* (Narrow-leaved Water-plantain) - lodes and ditches.

*Alisma plantago-aquatica* (Water-plantain) - lodes, ditches and pits.

*Baldellia ranunculoides* (Lesser Water-plantain) - rare in pits and pools.

*Sagittaria sagittifolia* (Arrowhead) - ditches and lodes.

APIACEAE (ex-UMBELLIFERAE)

*Aethusa cynapium* (Fool's Parsley) - disturbed places.

*Angelica sylvestris* (Wild Angelica) - common in litter, fen and carr.

*Anthriscus sylvestris* (Cow Parsley) - lode banks, shaded and disturbed places.

*Apium nodiflorum* (Fool's Water-cress) - lodes and ditches.

*Berula erecta* (Lesser Water-parsnip) - pits, ditches and lodes.

*Conium maculatum* (Hemlock) - local by droves and disturbed places.

*Heracleum sphondylium* (Hogweed) - rough and disturbed grassland.

*Hydrocotyle vulgaris* (Marsh Pennywort) - common in litter and on droves.

*Oenanthe aquatica* (Fine-leaved Water-dropwort) - rare and sporadic in ditches.

*Oenanthe fistulosa* (Tubular Water-dropwort) - by droves and lodes.

*Oenanthe fluviatilis* (River Water-dropwort) - in lodes.

*Oenanthe lachenalii* (Parsley Water-dropwort) - in litter and by droves.

*Pastinaca sativa* (Wild Parsnip) - rare in disturbed grassland.

*Peucedanum palustre* (Milk-parsley) - litter and tall fen.

*Torilis japonica* (Upright Hedge-parsley) - rare by droves.

ARACEAE

*Arum maculatum* (Lords-and-Ladies) - uncommon in woodland.

ARALIACEAE

*Hedera helix* (Ivy) - local in drier shade and hedges.

ASTERACEAE (ex COMPOSITAE)

*Achillea millefolium* (Yarrow) - drier droves and grassland.

*Arctium lappa* (Greater Burdock) - local in rough grass.

*Arctium minus* subsp. *pubens* (Lesser Burdock) - disturbed droves.

*Artemisia vulgaris* (Mugwort) - rough grass.

*Aster novi-belgii* @ (Michaelmas-daisy) - uncommon in litter.

*Bellis perennis* (Daisy) - local on paths and droves

*Carduus crispus* (Wetted Thistle) - uncommon in rough grass.

*Carduus nutans* (Musk Thistle) - lode and drain banks.

*Centaurea nigra* (Common Knapweed) - frequent in drier grassland and by droves.

*Cirsium arvense* (Creeping Thistle) - rough grass.

*Cirsium dissectum* (Meadow Thistle) - locally frequent in litter.

*Cirsium palustre* (Marsh Thistle) - common in litter, tall fen and carr.

*Cirsium vulgare* (Spear Thistle) - disturbed places.

*Conyza canadensis* @ (Canadian Fleabane) - fallow arable land

*Crepis capillaris* (Smooth Hawk's-beard) - banks in one area.

*Crepis vesicaria* @ (Beaked Hawk's-beard) - fallow arable land.

*Eupatorium cannabinum* (Hemp-agrimony) - tall fen and carr.

*Lapsana communis* (Nipplewort) - rare on shaded banks.

*Leontodon autumnalis* (Autumn Hawkbit) - rare in drier grassland.

*Leucanthemum vulgare* (Oxeye Daisy) - local in drier grassland.

*Matricaria discoidea* (Pineappleweed) - rare, in trampled sites.

*Picris echioides* (Bristly Oxtongue) - in one drier field.

*Pulicaria dysenterica* (Common Fleabane) - wet grassland.

*Senecio aquaticus* (Marsh Ragwort) - fallow arable land.

*Senecio erucifolius* (Hoary Ragwort) - rare in drier grassland.

*Senecio jacobaea* (Common Ragwort) - locally common in drier fields.

*Senecio paludosus* \* (Fen Ragwort) - re-introduced after extinction.

*Senecio vulgaris* (Groundsel) - rare on bonfire sites.

*Sonchus arvensis* (Perennial Sow-thistle) - in coarse vegetation.

*Sonchus asper* (Prickly Sow-thistle) - local in disturbed places.

*Sonchus oleraceus* (Smooth Sow-thistle) - drier disturbed places.  
*Taraxacum* agg. (Dandelion) - droves, grassland and litter.  
*Taraxacum palustre* (Marsh Dandelion) - rare in one wet field.  
*Tragopogon pratensis* (Goat's-beard) - rough grassland.  
*Tripleurospermum inodorum* (Scentless Mayweed) - disturbed places.  
*Tussilago farfara* (Colt's-foot) - disturbed places and by pits.

#### BETULACEAE

*Alnus glutinosa* \* (Alder) - a few planted trees on Evan's Fen and at west end of Sedge Fen Drove.  
*Betula pendula* (Silver Birch) - uncommon in carr.  
*Betula pubescens* (Downy Birch) - frequent in carr.

#### BORAGINACEAE

*Myosotis arvensis* (Field Forget-me-not) - in one disturbed place.  
*Myosotis laxa* (Tufted Forget-me-not) - locally common on bare peaty banks.  
*Myosotis scorpioides* (Water Forget-me-not) - by lodes and drains.  
*Symphytum officinale* (Common Comfrey) - carr, tall fen and litter.

#### BRASSICACEAE (ex-CRUCIFERAE)

*Alliaria petiolata* (Garlic Mustard) - uncommon in shade.  
*Barbarea vulgaris* (Winter-cress) - by lodes and droves.  
*Brassica nigra* (Black Mustard) - uncommon on disturbed drain banks.  
*Capsella bursa-pastoris* (Shepherd's-purse) - local in disturbed places.  
*Cardamine pratensis* (Cuckoo-flower) - local in litter.  
*Coronopus squamatus* (Swine-cress) - in one area, in gateways.  
*Descurainia sophia* (Flixweed) - fallow arable land.  
*Diplotaxis muralis* (Annual Wall-rocket) - rare on lode bank.  
*Erysimum cheiranthoides* (Treacle Mustard) - rare in disturbed places and on spoil.  
*Rorippa microphylla* (Narrow-fruited Water-cress) - rare by water.  
*Rorippa palustris* (Marsh Yellow-cress) - uncommon on spoil and in trampled places.  
*Sinapis arvensis* (Charlock) - fallow arable land.  
*Sisymbrium altissimum* @ (Tall Rocket) - local in gateways and track-sides.  
*Sisymbrium officinale* (Hedge Mustard) - rare in disturbed places.

#### BUTOMACEAE

*Butomus umbellatus* (Flowering-rush) - drains and lodes, uncommon.

#### CAPRIFOLIACEAE

*Sambucus nigra* (Elder) - rare in carr and disturbed edges.  
*Viburnum opulus* (Guelder-rose) - carr.

#### CARYOPHYLLACEAE

*Cerastium fontanum* subsp. *vulgare* (Common Mouse-ear) - in drier grassland and by droves.  
*Lychnis flos-cuculi* (Ragged-Robin) - litter and drove margins.  
*Myosoton aquaticum* (Water Chickweed) - occasionally common on wet spoil.  
*Silene latifolia* (White Campion) - disturbed places.  
*Silene noctiflora* (Night-flowering Catchfly) - fallow arable land.  
*Stellaria media* (Common Chickweed) - rare in wet, bare sites.

#### CERATOPHYLLACEAE

*Ceratophyllum demersum* (Rigid Hornwort) - lodes and pits.

#### CHENOPODIACEAE

*Chenopodium album* (Fat-hen) - fallow arable land.  
*Chenopodium ficifolium* (Fig-leaved Goosefoot) - uncommon by bonfire sites and in disturbed places.  
*Chenopodium hybridum* @ (Maple-leaved Goosefoot) - fallow arable land.  
*Chenopodium polyspermum* (Many-seeded Goosefoot) - rare by disturbed droves.  
*Chenopodium rubrum* (Red Goosefoot) - disturbed ground and wet mud.

#### CLUSIACEAE (ex-GUTTIFERAE)

*Hypericum tetrapterum* (Square-stemmed St John's-wort) - by droves and in litter.

#### COMPOSITAE (see ASTERACEAE)

#### CONVOLVULACEAE

*Calystegia sepium* (Hedge Bindweed) - tall fen, litter and carr.

#### CORNACEAE

*Cornus sanguinea* (Dogwood) - rare; by Sedge Fen Drove.

#### CRUCIFERAE (see BRASSICACEAE)

#### CUCURBITACEAE

*Bryonia dioica* (White Bryony) - local in hedges and in scrub at fen margin.

## CYPERACEAE

*Carex acutiformis* (Lesser Pond-sedge) - local in fen, litter and ditches.

*Carex appropinquata* (Fibrous Tussock-sedge) - rare in tall fen.

*Carex distans* (Distant Sedge) - local by droves.

*Carex disticha* (Brown Sedge) - common in litter and by droves.

*Carex elata* (Tufted-sedge) - uncommon in tall fen and litter.

*Carex flacca* (Glaucous Sedge) - common on droves and in litter.

*Carex hirta* (Hairy Sedge) - uncommon on droves and drier grassland.

*Carex hostiana* (Tawny Sedge) - uncommon on droves.

*Carex lasiocarpa* (Slender Sedge) - rare by droves and in litter.

*Carex otrubae* (False Fox-sedge) - uncommon in drier grassland.

*Carex panicea* (Carnation Sedge) - abundant in litter and by droves.

*Carex pseudocyperus* (Cyperus Sedge) - in one place by a pool.

*Carex riparia* (Greater Pond-sedge) - ditches, lodes and tall fen.

*Carex viridula* subsp. *brachyrrhyncha* (Yellow-sedge) - by droves and in litter.

*Carex viridula* subsp. *viridula* (Yellow-sedge) - rare on droves

*Cladium mariscus* (Great Fen-sedge) - locally dominant in tall fen.

*Eleocharis acicularis* (Needle Spike-rush) - local in lodes.

*Eleocharis palustris* (Common Spike-rush) - local on droves.

*Eleocharis quinqueflora* (Few-flowered Spike-rush) - locally abundant on droves.

*Eleocharis uniglumis* (Slender Spike-rush) - abundant on one drove.

*Schoenoplectus lacustris* (Common Club-rush) - lodes.

## DIPSACACEAE

*Dipsacus fullonum* subsp. *sylvestris* (Wild Teasel) - uncommon in cleared and disturbed areas.

*Succisa pratensis* (Devil's-bit Scabious) - litter and drove edges.

## EUPHORBIACEAE

*Euphorbia helioscopia* (Sun Spurge) - rare on disturbed ground.

## FABACEAE (ex-LEGUMINOSAE)

*Lathyrus palustris* (Marsh Pea) - frequent in tall fen and litter.

*Lathyrus pratensis* (Meadow Vetchling) - uncommon in dry grassland.

*Lotus corniculatus* (Common Bird's-foot-trefoil) - rare in drier grassland.

*Medicago lupulina* (Black Medick) - rare in drier and disturbed places.

*Trifolium fragiferum* (Strawberry Clover) - on one drove.

*Trifolium repens* (White Clover) - droves and grass fields.

*Vicia cracca* (Tufted Vetch) - lode banks, litter and drier grassland.

## FAGACEAE

*Quercus robur* (Pedunculate Oak) - woodland and by droves.

## FUMARIACEAE

*Fumaria officinalis* subsp. *wirtgenii* (Common Fumitory) - rare in disturbed places.

## GERANIACEAE

*Geranium dissectum* (Cut-leaved Crane's-bill) - drier disturbed areas.

*Geranium robertianum* (Herb-Robert) - local in drier shady areas.

## GRAMINEAE (see POACEAE)

## GROSSULARIACEAE

*Ribes nigrum* (Black Currant) - frequent in carr.

*Ribes rubrum* (Red Currant) - local in carr and scrub.

## GUTTIFERAE (see CLUSIACEAE)

## HALORAGACEAE

*Myriophyllum spicatum* (Spiked Water-milfoil) - ditches, drains and lodes.

*Myriophyllum verticillatum* (Whorled Water-milfoil) - rare in pits.

## HIPPURIDACEAE

*Hippuris vulgaris* (Mare's-tail) - drains and lodes.

## HYDROCHARITACEAE

*Elodea canadensis* @ (Canadian Waterweed) - lodes.

*Elodea nuttallii* @ (Nuttall's Waterweed) - lodes.

## IRIDACEAE

*Iris pseudacorus* (Yellow Iris) - litter, tall fen, carr and ditches.

## JUNCACEAE

*Juncus articulatus* (Jointed Rush) - wet droves and edges of water.

*Juncus bufonius* (Toad Rush) - rutted droves  
*Juncus compressus* (Round-fruited Rush) - rare in short wet grassland.  
*Juncus effusus* (Soft-rush) - rare in wet grassland.  
*Juncus inflexus* (Hard Rush) - local in wet grassland.  
*Juncus subnodulosus* (Blunt-flowered Rush) - locally dominant in litter.  
*Juncus tenuis* @ (Slender Rush) - in one place on path.

#### JUNCAGINACEAE

*Triglochin palustre* (Marsh Arrowgrass) - drove margins.

#### LABIATAE (see LAMIACEAE)

#### LAMIACEAE (ex-LABIATAE)

*Ajuga reptans* (Bugle) - uncommon on damp droves.  
*Galeopsis bifida* (Bifid Hemp-nettle) - fallow arable land.  
*Glechoma hederacea* (Ground-ivy) - local in shade and on droves.  
*Lamium album* (White Dead-nettle) - local in rough grassland.  
*Lamium purpureum* (Red Dead-nettle) - rare in disturbed places.  
*Lycopus europaeus* (Gypsywort) - taller moist vegetation.  
*Mentha aquatica* (Water Mint) - common in litter, tall fen and by water.  
*Mentha arvensis* (Corn Mint) - in one damp disturbed area.  
*Prunella vulgaris* (Selfheal) - local by droves.  
*Scutellaria galericulata* (Skullcap) - by droves and in woodland.  
*Stachys palustris* (Marsh Woundwort) - litter, tall fen and carr.  
*Stachys sylvatica* (Hedge Woundwort) - shaded, drier drove margin.

#### LEGUMINOSAE (see FABACEAE)

#### LEMNACEAE

*Lemna minor* (Common Duckweed) - ditches, drains, lodes and pits.  
*Lemna minuta* @ (Least Duckweed) - ditches and lodes.  
*Lemna trisulca* (Ivy-leaved Duckweed) - locally with *L. minor*.

#### LENTIBULARIACEAE

*Utricularia vulgaris* (Greater Bladderwort) - pits and ditches.

#### LILIACEAE

*Allium vineale* (Wild Onion) - at one place on drier drove.  
*Asparagus officinalis* (Garden Asparagus) - seedlings frequent in carr.  
*Galanthus nivalis* @ (Snowdrop) - very locally abundant as a garden relic in shade.

#### LINACEAE

*Linum catharticum* (Fairy Flax) - mown drove margins.  
*Linum usitatissimum* (Flax) - fallow arable land.

#### LYTHRACEAE

*Lythrum salicaria* (Purple Loosestrife) - by water.

#### MALVACEAE

*Malva sylvestris* (Common Mallow) - rare on rough lode banks.

#### MYRICACEAE

*Myrica gale* (Bog-myrtle) - a few patches on carr margins.

#### NYMPHAEACEAE

*Nuphar lutea* (Yellow Water-lily) - lodes and drains.  
*Nymphaea alba* (White Water-lily) - lodes, drains and pits.

#### OLEACEAE

*Fraxinus excelsior* (Ash) - carr and woodland.

*Ligustrum vulgare* (Privet) - carr and hedges.

#### ONAGRACEAE

*Chamerion angustifolium* (Rosebay Willowherb) - bonfire sites and on fallow arable land.  
*Epilobium ciliatum* @ (American Willowherb) - rare in drier places.  
*Epilobium hirsutum* (Great Willowherb) - in tall fen and by drains.  
*Epilobium montanum* (Broad-leaved Willowherb) - rare in drier places.  
*Epilobium parviflorum* (Hoary Willowherb) - rare in drier fen and rough grassland.  
*Epilobium tetragonum* (Square-stemmed Willow-herb) - rare in drier places.

#### ORCHIDACEAE

*Dactylorhiza fuchsii* (Common Spotted-orchid) - in one place by drove.

*Dactylorhiza incarnata* subsp. *incarnata* (Early Marsh-orchid) - locally common by droves and in litter.

*Dactylorhiza incarnata* subsp. *pulchella* (Early Marsh-orchid) - in same habitats as latter and often growing with it.

*Dactylorhiza maculata* subsp. *ericetorum* (Heath Spotted-orchid) - in one place by a drove.

*Dactylorhiza praetermissa* (Southern Marsh-orchid) - rather uncommon in similar sites to the Early Marsh Orchid.

*Listera ovata* (Common Twayblade) - local on drove margins.

*Ophrys apifera* (Bee Orchid) - in one place in drier grassland.

#### PAPAVERACEAE

*Papaver rhoeas* (Common Poppy) - rare in disturbed places.

*Papaver somniferum* \* (Opium Poppy) - in one disturbed field.

#### PINACEAE

*Pinus sylvestris* \* (Scots Pine) - planted by path.

#### PLANTAGINACEAE

*Plantago lanceolata* (Ribwort Plantain) - drier grassland and by droves.

*Plantago major* (Greater Ribwort) - in wet and trampled places.

#### POACEAE (ex-GRAMINEAE)

*Agrostis stolonifera* (Creeping Bent) - droves, ditches and disturbed places.

*Alopecurus myosuroides* (Black-grass) - disturbed places.

*Anisantha sterilis* (Barren Brome) - uncommon in disturbed places.

*Anthoxanthum odoratum* (Sweet Vernal-grass) - rare in drier grassland.

*Arrhenatherum elatius* (False Oat-grass) - rough grass and droves.

*Avena fatua* (Wild-oat) - fallow arable land.

*Briza media* (Quaking-grass) - common on drier droves.

*Bromopsis erecta* (Upright Brome) - rare in drier grassland.

*Bromus commutatus* (Meadow Brome) - rare in disturbed grassland.

*Bromus hordeaceus* (Soft-brome) - uncommon in drier grassland.

*Calamagrostis canescens* (Purple Small-reed) - abundant in litter and carr, especially where drier or disturbed.

*Calamagrostis epigejos* (Wood Small-reed) - litter and carr.

*Dactylis glomerata* (Cock's-foot) - drier rougher grassland.

*Deschampsia cespitosa* (Tufted Hair-grass) - rough grass, litter and by droves.

*Elytrigia repens* (Common Couch) - disturbed places and rough grass.

*Festuca arundinacea* (Tall Fescue) - lode banks and rough grassland.

*Festuca pratensis* (Meadow Fescue) - local in drier grassland.

*Festuca rubra* (Red Fescue) - rough grassland, litter and by droves.

*Glyceria fluitans* (Floating Sweet-grass) - ditches and wet droves.

*Glyceria maxima* (Reed Sweet-grass) - local by water-courses.

*Glyceria notata* (Plicate Sweet-grass) - uncommon in wet drove ruts.

*Helictotrichon pubescens* (Downy Oat-grass) - rare in drier grassland.

*Holcus lanatus* (Yorkshire-fog) - rough grass and in litter.

*Hordeum murinum* (Wall Barley) - rare in disturbed ground.

*Hordeum secalinum* (Meadow Barley) - local in drier grassland.

*Lolium perenne* (Perennial Rye-grass) - local in drier grassland.

*Molinia caerulea* (Purple Moor-grass) - often dominant in litter and widespread in tall fen.

*Phalaris arundinacea* (Reed Canary-grass) - tall fen and margins.

*Phalaris canariensis* (Canary-grass) - fallow arable land.

*Phleum bertolonii* (Smaller Cat's-tail) - rare in drier grassland.

*Phleum pratense* (Timothy) - in drier grassland.

*Phragmites australis* (Common Reed) - often dominant in tall fen, also common in carr, litter and in water.

*Poa annua* (Annual Meadow-grass) - rutted droves, spoil and fallow arable land.

*Poa trivialis* (Rough Meadow-grass) - droves, litter and carr.

*Trisetum flavescens* (Yellow Oat-grass) - rare in drier grassland.

#### POLYGALACEAE

*Polygala vulgaris* (Common Milkwort) - drier drove margins.

#### POLYGONACEAE

*Fallopia convolvulus* (Black-bindweed) - rare on disturbed ground.

*Persicaria amphibia* (Amphibious Bistort) - lodes and rough grass.

*Persicaria lapathifolia* (Pale Persicaria) - rare on wet spoil.

*Persicaria maculosa* (Redshank) - bare and disturbed places.

*Polygonum aviculare* (Knotgrass) - trampled and bare places.  
*Rumex acetosa* (Common Sorrel) - rare on drove margins.  
*Rumex crispus* (Curled Dock) - drier rough grassland and drain banks.  
*Rumex hydrolapathum* (Water Dock) - ditches and lodes.  
*Rumex palustris* (Marsh Dock) - local on wet mud.

#### POTAMOGETONACEAE

*Potamogeton berchtoldii* (Small Pondweed) - drains and lodes.  
*Potamogeton coloratus* (Fen Pondweed) - ditches and drains.  
*Potamogeton crispus* (Curled Pondweed) - lodes.  
*Potamogeton friesii* (Flat-stalked Pondweed) - rare in lodes.  
*Potamogeton lucens* (Shining Pondweed) - abundant in lodes and drains.  
*Potamogeton natans* (Broad-leaved Pondweed) - local in ditches.  
*Potamogeton pectinatus* (Fennel Pondweed) - lodes.  
*Potamogeton perfoliatus* (Perfoliate Pondweed) - lodes.  
*Potamogeton praelongus* (Long-stalked Pondweed) - rare in lodes.

#### PRIMULACEAE

*Anagallis arvensis* (Scarlet Pimpernel) - abundant in one dry field.  
*Hottonia palustris* (Water-violet) - locally common in lodes and drains.  
*Lysimachia vulgaris* (Yellow Loosestrife) - common in litter, tall fen and carr.  
*Primula veris* (Cowslip) - uncommon in drier grassland.  
*Samolus valerandi* (Brookweed) - local on ditch and drove margins.

#### RANUNCULACEAE

*Caltha palustris* (Marsh-marigold) - ditches, litter and fen.  
*Ranunculus acris* (Meadow Buttercup) - moist grassland and droves.  
*Ranunculus circinatus* (Fan-leaved Water-crowfoot) - local in ditches and lodes.  
*Ranunculus ficaria* (Lesser Celandine) - rare in damp shade.  
*Ranunculus flammula* (Lesser Spearwort) - litter and by droves.  
*Ranunculus lingua* (Greater Spearwort) - pits and drove-side ditches.  
*Ranunculus repens* (Creeping Buttercup) - wet grassland and droves.  
*Ranunculus sceleratus* (Celery-leaved Buttercup) - wet mud and ruts.  
*Ranunculus trichophyllus* (Thread-leaved Water-crowfoot) - rare in shallow ditches.  
*Thalictrum flavum* (Common Meadow-rue) - common in litter, tall fen and by ditches.

#### RESEDACEAE

*Reseda lutea* (Wild Mignonette) - local in drier grassland.  
*Reseda luteola* (Weld) - rare on lode banks and spoil.

#### RHAMNACEAE

*Frangula alnus* (Alder Buckthorn) - common in carr and colonising fen, but affected by disease.  
*Rhamnus cathartica* (Buckthorn) - common in carr.

#### ROSACEAE

*Agrimonia eupatoria* (Agrimony) - in one place in drier grassland.  
*Crataegus monogyna* (Hawthorn) - carr and woodland.  
*Filipendula ulmaria* (Meadowsweet) - litter, by droves and drains.  
*Geum urbanum* (Wood Avens) - local in shaded areas..  
*Potentilla anserina* (Silverweed) - local on wet short grassland.  
*Potentilla erecta* (Tormentil) - local by drier droves.  
*Potentilla reptans* (Creeping Cinquefoil) - uncommon by droves.  
*Prunus spinosa* (Blackthorn) - scrub and drier carr.  
*Rosa canina* (Dog-rose) - scrub and fen margins.  
*Rubus caesius* (Dewberry) - carr and tall fen.  
*Rubus fruticosus* agg. (Bramble) - scrub and fen margins.  
*Rubus idaeus* (Raspberry) - in one drier scrubby site.  
*Sorbus aucuparia* (Rowan) - rare in drier scrub.

#### RUBIACEAE

*Galium aparine* (Cleavers) - disturbed areas and fen margins.  
*Galium mollugo* (Hedge Bedstraw) - rare in rough grass by droves.  
*Galium palustre* (Common Marsh-bedstraw) - local in litter and tall fen.  
*Galium uliginosum* (Fen Bedstraw) - frequent in litter and tall fen.

#### SALICACEAE

*Populus tremula* (Aspen) - local in carr and woodland.  
*Populus x canadensis* @ (Hybrid Black-poplar) - rare by droves.

*Populus x canescens* @ (Grey Poplar) - rare by droves.  
*Salix alba* (White Willow) - woodland, carr and by droves.  
*Salix caprea* (Goat Willow) - local in drier carr.  
*Salix cinerea* subsp. *cinerea* (Grey Willow) - locally dominant in carr.  
*Salix fragilis* (Crack-willow) - woodland, drove and fen margins.  
*Salix pentandra* \* (Bay Willow) - planted along droves in one area.  
*Salix purpurea* (Purple Willow) - local in carr and on fen margins.  
*Salix repens* var. *fusca* (Creeping Willow) - carr and tall fen.  
*Salix viminalis* (Osier) - rare at margins of the fen.

#### SCROPHULARIACEAE

*Chaenorhinum minus* (Small Toadflax) - fallow arable land.  
*Kickxia elatine* (Sharp-leaved Fluellen) - in one drier, disturbed place.  
*Kickxia spuria* (Round-leaved Fluellen) - with latter.  
*Odontites vernus* (Red Bartsia) - occasional at path-sides.  
*Rhinanthus minor* subsp. *stenophyllus* (Yellow-rattle) - litter and drove margins.  
*Scrophularia auriculata* (Water Figwort) - local in carr and by lodes.  
*Veronica agrestis* (Green Field-speedwell) - fallow arable land.  
*Veronica arvensis* (Wall Speedwell) - fallow arable land.  
*Veronica beccabunga* (Brooklime) - wet droves and water margins.  
*Veronica catenata* (Pink Water-speedwell) - wet mud and shallow water.  
*Veronica persica* (Common Field-speedwell) - rare in disturbed places.

#### SOLANACEAE

*Solanum dulcamara* (Bittersweet) - frequent in shade, including carr.  
*Solanum nigrum* (Black Nightshade) - locally common in cleared areas.  
*Solanum tuberosum* @ (Potato) - fallow arable land.

#### SPARGANIACEAE

*Sparganium emersum* (Unbranched Bur-reed) - lodes and ditches.  
*Sparganium erectum* (Branched Bur-reed) - abundant in ditches.  
*Sparganium natans* (Least Bur-reed) - rare in ponds and ditches.

#### THYMELAEACEAE

*Daphne mezereum* @ (Mezereon) - single bushes, possibly bird-sown, in carr in two places in north-east fen.

#### TYPHACEAE

*Typha angustifolia* (Lesser Reedmace) - ditches.  
*Typha latifolia* (Greater Reedmace) - pits, ditches and lodes.

#### ULMACEAE

*Ulmus* species (Elms) - young trees and suckers mostly in hedges near Wicken village and on mere islands. Some trees belong to i) *U. minor* - *Anglianae* group (East Anglian Small-leaved Elm); ii) *U. minor* - *Coritanae* group (Coritanian Elm); and iii) *U. procera* (English Elm).

#### UMBELLIFERAE (see APIACEAE)

#### URTICACEAE

*Urtica dioica* (Common Nettle) - carr, scrub and disturbed places.  
*Urtica galeopsifolia* ("Fen Nettle") - carr.  
*Urtica urens* (Small Nettle) - fallow arable land.

#### VALERIANACEAE

*Valeriana dioica* (Marsh Valerian) - common in litter and by droves.  
*Valeriana officinalis* (Common Valerian) - local in litter and carr.

#### VIOLACEAE

*Viola canina* subsp. *montana* (Heath Dog-violet) - rare in mown fen.  
*Viola hirta* (Hairy Violet) - rare in drier drove margins.  
*Viola persicifolia* (Fen Violet) - rare where carr is cleared.  
*Viola riviniana* (Common Dog-violet) - rare on dry path-sides.

#### ZANNICHELLIACEAE

*Zannichellia palustris* (Horned Pondweed) - lodes and ditches.

B. FERNS and their ALLIES (PTERIDOPHYTA)

DRYOPTERIDACEAE

*Dryopteris affinis* subsp. *borreri* (Scaly Male-fern) - rare in old carr.

*Dryopteris carthusiana* (Narrow Buckler-fern) - rare in old carr.

*Dryopteris dilatata* (Broad Buckler-fern) - occasional in old carr.

*Dryopteris filix-mas* (Male-fern) - carr and woodland.

OPHIOGLOSSACEAE

*Ophioglossum vulgatum* (Adder's-tongue) - in shorter grassland.

THELYPTERIDACEAE

*Thelypteris palustris* (Marsh Fern) - carr and tall fen.

WOODSIACEAE

*Athyrium filix-femina* (Lady-fern) - uncommon in old carr.

Mosses of Wicken Fen

The presence of most of the following species has been verified since 1975. Those species presumed extinct or not seen recently are listed separately.

AMBLYSTEGIACEAE:

*Amblystegium riparium* Uncommon on bases of trees in or close to water level.

*Amblystegium serpens* Frequent at base of old *Salix* and *Frangula* bushes usually in carr.

*Calliergon cuspidatum* Very common on the ground both in carr and also in sedge fields.

*Campylium elodes*

*Campylium polygamum* Occasional in open wet places in sedge fields.

*Campylium stellatum* var. *protensum* (recorded 1989); var. *stellatum* last recorded 1979.

*Cratoneuron filicinum*

*Drepanocladus aduncus* Occasional in pools by Sedge Fen Drove.

AULACOMNIACEAE

*Aulacomnium androgynum* Occasional. Commonest as an epiphyte on old horizontal branches of willows in carr.

*Aulacomnium palustre* Rare in the driest parts of the carr. Seen on Verrall's Fen

BRACHYTHECIACEAE

*Brachythecium rivulare*

*Brachythecium rutabulum* Common on the ground usually in partially shaded and disturbed places.

*Brachythecium salebrosum*

*Brachythecium velutinum*

*Cirriphyllum piliferum* Verralls Fen

*Eurhynchium praelongum*

*Eurhynchium speciosum*

*Eurhynchium striatum*

*Pseudoscleropodium purum*

*Rhynchostegium confertum*

BRYACEAE

*Bryum argenteum* Uncommon usually in artificial sites such as the gaps between bridge planks.

*Bryum bicolor* On old bog oaks by Sedge fen Drove.

*Bryum caespiticium*

*Bryum capillare* Usually epiphytic on old more-or-less horizontal willow branches.

*Bryum flaccidum*

*Bryum pseudotriquetrum* var. *bimum*

*Bryum rubens*

*Orthodontium lineare* Occasional usually at the base of large trees. Fruits abundantly.

*Pohlia nutans*

CLIMACIACEAE

*Climacium dendroides*

CRYPHAEACEAE

*Cryphaea heteromalla* One small tuft on an elder by the boardwalk near Wicken Lode.

DICRANACEAE

*Campylopus introflexus*

*Campylopus paradoxus*

*Campylopus pyriformis*

*Ceratodon purpureus* On artificial habitats such as old railway sleepers often with *Bryum argenteum*.

*Dicranella heteromalla*

*Dicranoweisia cirrata* Always epiphytic usually on old willows.

*Dicranum scoparium* Occasional in drier places in carr. Also occasionally epiphytic.

#### FISSIDENTACEAE

*Fissidens adianthoides* Occasional on the ground in drier parts of carr.

*Fissidens incurvus* On clay bank behind brickpits; in partial shade.

*Fissidens taxifolius* On clay bank behind brickpits in partial shade.

#### FUNARIACEAE

*Funaria hygrometrica* Frequent around bonfire sites only.

*Physcomitrium pyriforme*

#### HYPNACEAE

*Ctenidium molluscum*

*Hylocomium brevirostre*

*Hylocomium splendens*

*Hypnum cupressiforme* var. *cupressiforme* and var. *resupinatum*

*Hypnum jutlandicum*

*Pleurozium schreberi* Occasional in the driest parts of the carr. On Verralls Fen in 1985

*Rhytidiadelphus loreus*

*Rhytidiadelphus squarrosus*

#### LESKEACEAE

*Leskea polycarpa*

#### LEUCOBRYACEAE

*Leucobryum glaucum*

#### MNIACEAE

*Mnium hornum*

*Plagiomnium affine* Frequent in carr on the ground usually in unflooded sites.

*Plagiomnium elatum* (*Mnium seligeri*)

*Plagiomnium ellipticum*

*Plagiomnium undulatum*

*Rhizomnium punctatum*

#### ORTHOTRICHACEAE

*Orthotrichum affine* Always epiphytic usually on old willows in carr.

*Orthotrichum diaphanum* On old willows in carr and on elders at the fen margin.

*Orthotrichum pulchellum* Uncommon On old elder. First record for Cambridgeshire.

*Uloa crispa* var. *norvegica*. By the Brickpits and old prostrate *Salix cinerea* trunks near Barnes' Mere.

#### PLAGIOTHECIACEAE

*Plagiothecium curvifolium*

*Plagiothecium denticulatum*

*Plagiothecium nemorale*

*Plagiothecium undulatum*

#### POLYTRICHACEAE

*Atrichum undulatum* Occasional in the drier parts of the carr sometimes forming patches up to 30 cm in diameter.

*Polytrichum commune* A few patches seen on Verrall's Fen in summer 1988 and a few shoots in Feb. 1989.

*Polytrichum formosum*

*Polytrichum longisetum*

#### POTTIACEAE

*Barbula convoluta*

*Barbula tophacea*

*Tortula laevipila*

*Tortula muralis* On concrete post and edging stones.

#### SPHAGNACEAE

*Sphagnum fimbriatum* Scattered clumps mainly on Verrall's Fen.

*Sphagnum palustre* Scattered clumps in Godwin Plots; by Verrall's Drove; on Verrall's Fen.

*Sphagnum recurvum*

*Sphagnum squarrosum* Occasional clumps in carr in the Godwin Plots by Verrall's Drove and on Verrall's Fen.

*Sphagnum subnitens* Occasional clumps on Verrall's Fen; Godwin plots by Verrall's Drove.

#### THUIDIACEAE

*Thuidium tamariscinum*

Musci presumed extinct or not seen recently (since 1975) at Wicken Fen

*Amblystegium varium* (Amblystegiaceae)

*Campylopus brevipilus* (Dicranaceae) Godwin Plots area

*Cratoneuron commutatum* (Amblystegiaceae)

*Eurhynchium swartzii* (Brachytheciaceae)

*Fontinalis antipyretica* (Fontinalaceae)

*Hookeria lucens* (Hookeriaceae) In acid sites in deep shade of carr.

*Isothecium myurum* (Brachytheciaceae) Last seen St. Edmunds Fen.

*Leptobryum pyriforme* (Bryaceae)

*Polytrichum juniperinum* (Polytrichaceae)

*Tetraphis pellucida* (Tetraphidaceae)

Liverworts of Wicken Fen

The presence of most of the following species has been verified since 1975. Those species presumed extinct or not seen recently are listed separately.

ANEURACEAE

*Aneura pinguis*

*Riccardia chamaedryfolia*

CALYPOGEEACEAE

*Calypogeia fissa*

CEPHALOZACEAE

*Cephalozia bicuspidata*

FRULLANIACEAE

*Frullania dilatata* Rare On *Salix pentandra* between Sedge Fen Drove & Spinney Bank

GEOCALYCEAE

*Chiloscyphus pallescens*

*Lophocolea bidentata*

*Lophocolea heterophylla*

METZGERIACEAE

*Metzgeria fruticulosa* Uncommon. One patch on an old elder.

RADULACEAE

*Radula complanata*

RICCIACEAE

*Riccia fluitans* Sporadic ditches at end of Sedge Fen Drove (1989) and at NE end of Reedfield by Harrison's Drove.

*Ricciocarpos natans*

Hepatics presumed extinct or not seen recently (since 1975) at Wicken Fen

*Cephaloziella* sp. (Cephaloziellaceae)

*Marchantia polymorpha* (Marchantiaceae)

*Metzgeria furcata* (Metzgeriaceae)

*Pellia endiviifolia* (Pelliaceae)

*Pellia epiphylla* (Pelliaceae)

*Plagiochila asplenoides* (Plagiochilaceae)

*Riccardia multifida* (Aneuraceae)

CHAROPYTA of WICKEN FEN

( )= Date of last record

CHARACEAE

*Chara aculeolata* (1949)

*Chara contraria*

*Chara curta* (1899)

*Chara globularis*

*Chara hispida*

*Chara pedunculata*

*Chara rudis* (1935)

*Chara virgata*  
*Chara vulgaris*  
*Nitella flexilis*  
*Nitella tenuissima*  
*Tolypella glomerata*