



The fen community grades into other vegetation types, often dominated by common reed *Phragmites australis* and tall herbs such as meadowsweet *Filipendula ulmaria*, great willowherb *Epilobium hirsutum* and hemp-agrimony *Eupatorium cannabinum* on the valley sides, and tufted hair grass *Deschampsia cespitosa* and common knapweed *Centaurea nigra* on better drained soils.

Many species of mosses thrive in the damp conditions of the fen. *Drepanocladus revolvens* is a distinctive species characteristic of enriched flushed peat and *Ctenidium molluscum* is found in a wide range of calcareous habitats. Some species are uncommon or rare and are more strongly associated with fens. These include *Campylium stellatum*, *Plagiomnium elatum* and *Brachythecium mildeanum*. *Cratoneuron commutatum* and *C. filicinum* occur in the wettest areas.

A wide range of terrestrial and aquatic invertebrates has been recorded, and insects in particular were well documented by entomologists earlier this century with many national rarities recorded at this time, including the beetle *Eubria palustris*, the hoverfly *Othonerva geniculata* and soldier flies *Odontomyia argentata*, *Oxycera pardalina* and *Stratiomys chamaeleon* (the last of which occurs in only one other locality in Britain). The status of these insects in Lye Valley is now uncertain, although recent records include the nationally rare soldier fly *Vanoyia tenuicornis*. Two uncommon spiders, *Xysticus ulmi* and *Anistea elegans* inhabit the fen.

Aquatic species of invertebrates occurring in the Lye Brook include the water slater *Asellus meridianus* and stonefly *Nemoura erratica* which in the Oxford area appear to be associated with springs and small streams on calcareous fens.

A variety of birds inhabit the Lye Valley; those most directly associated with the marshy areas being reed warblers and reed buntings which breed, water rail which has been seen on passage, and snipe which visit in winter.