

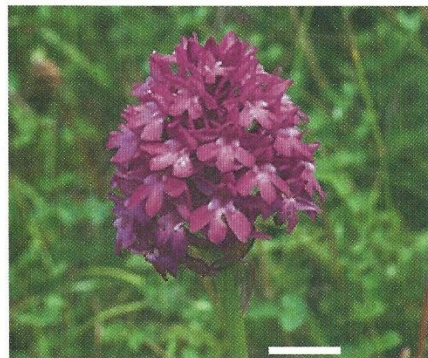
***Autumn Gentian (*Gentianella amarella*)**

(FD) August – September. This is a biennial plant, producing a rosette of leaves only in the first year, which then dies over winter, and another set of leaves and flowers are produced the following year. The flowers are pollinated by bumble-bees.



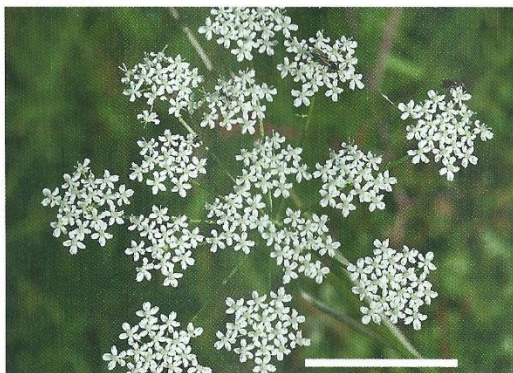
Pyramidal Orchid (*Anacamptis pyramidalis*)

(FD) June – August, at only one known location on the Fleam Dyke. The flowers are pollinated by butterflies and day- and night-flying moths.



Burnet Saxifrage (*Pimpinella saxifraga*)

(FD) July – September. It has been grown in parts of Europe since the 16th Century as a herbal medicine, used for gout, rheumatism and the plague. Young leaves were eaten in soups and stews, and it was also added as a flavouring to beer.



The two small plantations of Juniper beside the A11 are cuttings from trees on the Fleam Dyke. The land was provided in compensation for the section of the dyke destroyed during the widening of the A11 in 1991. These trees are now about 15 years old.



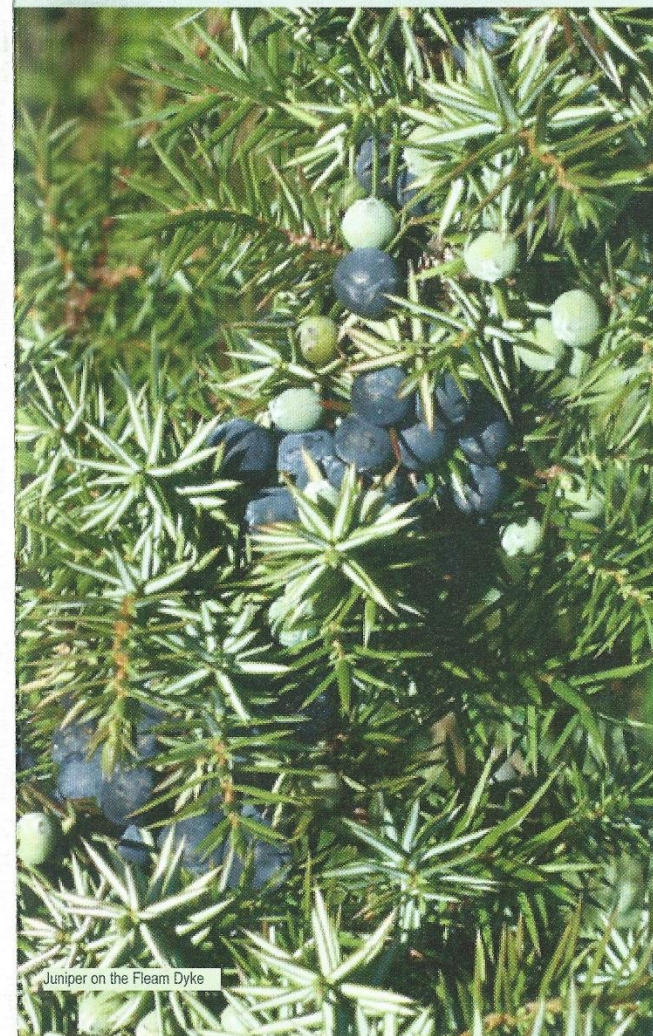
*Juniper trees,
female (left)
and male
(right)*

All photographs were taken *in situ* on the Roman Road and Fleam Dyke by C. A. Newell. (November 2012)

Flora of the Roman Road and Fleam Dyke



Scheduled Monument and
Site of Special Scientific
Interest



Juniper on the Fleam Dyke

***Horseshoe Vetch (*Hippocrepis comosa*)**

(FD, RR) May – July. Found in profusion in a good year on the Fleam Dyke. It is so-called because the curved pods break up into horseshoe-shaped segments on maturity. It is the food plant for caterpillars of the beautiful Chalkhill Blue butterfly, which enjoyed a prolific season on the Fleam Dyke in 2012.



Horseshoe Vetch flowers



Horseshoe Vetch pods

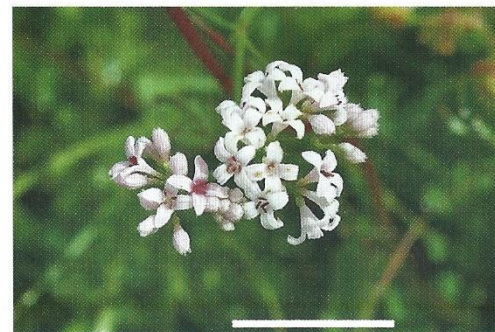
Hoary Plantain (*Plantago media*)

(FD, RR) May – August. It is pollinated by insects, unlike the other Plantains that are wind pollinated, which accounts for the comparatively showy, scented flowers. The plant was valued in the Middle Ages for its medicinal properties, used as an astringent and an eye-wash for conjunctivitis.



***Squinancywort (*Asperula cynanchica*)**

(FD) June – July. A low-growing, rather prostrate herb with small, vanilla-scented flowers, which are attractive to a variety of small insects. It was traditionally used to cure Quinsy, an inflammation of the throat and tonsils.



***Purple Milk-vetch (*Astragalus danicus*)**

(FD, RR) May – July. World-wide, *Astragalus* is a huge genus, but this is one of only three *Astragalus* species in Britain, all with rather limited distribution. The related Wild Liquorice, *Astragalus glycyphyllos*, can be found in the old chalk pit, which makes up Cherry Hinton Nature Reserve.



Purple Milk-vetch pods

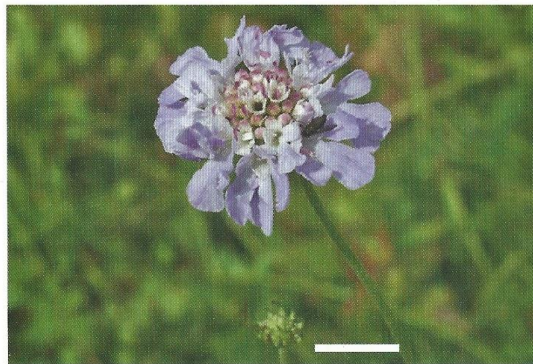
***Dropwort (*Filipendula vulgaris*)**

(FD, RR) May – August. The flowers can be used to flavour herbal beers and wines, and old herbals record that the roots, powdered or made into a decoction with white wine and honey, were good for kidney infections and lung diseases.



Small Scabious (*Scabiosa columbaria*)

(FD, RR) July – September. This is a slender version of the larger Field Scabious, which can be seen along roadsides. Like its larger relative, the Small Scabious is a magnet for butterflies and other insects.



***Carline Thistle (*Carlina vulgaris*)**

(FD, RR) July – October. A biennial plant, which produces a rosette of spiny leaves in the first year and flowers in the second year. The straw-coloured flowers are a favoured nectar source of the Chalkhill Blue butterflies.



Dwarf Thistle (*Cirsium acaule*)

(FD, RR) June – September. This is another spiny-leaved thistle, producing a rosette of leaves; the purple flowers are usually close to the ground without a well-developed stem. Known to its victims as the Picnic Thistle.



***Bastard Toadflax (*Thesium humifusum*)**

(FD) June – August. This interesting tiny plant with minute flowers and a creeping, low-growing habit is the only member in the British Isles from the Santalaceae family, to which Sandalwood belongs. It is semi-parasitic on the roots of various herbs in the chalk grassland and gets its nutrients from the host plants via attachments known as 'haustoria'.



***Clustered Bellflower (*Campanula glomerata*)**

(FD, RR) June – October. Campanula refers to the bell-like shape of the flowers, and a cultivated variety 'Superba' is popular as a garden plant on account of its showy flowers.



This leaflet is dedicated to the memory of

David Clark, 1920 - 2010,

who loved Fleam Dyke and, with other volunteers, helped to keep the path along the bank clear of invading scrub. During the 1970s and 1980s, David Clark sent the local Wildlife Trust annual reports on the state of the endangered junipers, and roused up work parties to protect them. He also took part in the campaign for a footbridge over the enlarged A11. In his professional life, Dr David Clark was widely known for his work as the reforming Medical Superintendent of Fulbourn Mental Hospital, transforming the old asylum into an open-door, community-integrated institution with psychotherapy at its centre.

The plants shown in this leaflet are native plants, that is, they colonized the British Isles by natural means and have been established here for a long time; they are also "calcicoles", confined to or more frequently found on chalky soils, typically in short turf. All the plants here, with a couple of exceptions which are noted below, are perennials; that is, they have some form of overwintering structure from which to start growth the following season.

In addition, all those plants marked with an asterisk (*) were mentioned by John Ray in 1660 in his catalogue of plants growing around Cambridge, regarded as the first British county flora. While not specifically referring to the Roman Road and Fleam Dyke, these plants were noted as being on the "Gogmagog Hills", and thus in close proximity to the Roman Road. It is wonderful to think that, 350 years after this publication, despite changes in land management, descendants of the plants recorded by John Ray are still to be found on the chalk along the Roman Road and Fleam Dyke. (RR, Roman Road; FD, Fleam Dyke; scale bar = 1cm)

Juniper (*Juniperus communis*)

(FD) is one of only 3 conifer species native to Britain. It is a priority species in the UK Biodiversity Action Plan, owing to difficulties with regeneration and repopulation and its consequent decline in distribution. Junipers were mentioned by John Ray in 1660 as growing near Hildersham, but the Fleam Dyke population was not recorded until 1879; other populations died out, but the Fleam Dyke trees seem to have been the only known surviving Junipers in Cambridgeshire for more than 60 years. Junipers are slow-growing and long-lived, with ages of more than 100 years recorded. Young plants take 4-9 years to reach maturity, and trees are either male or female; the flowers appear in early spring, and pollination is effected by the wind. What we know as juniper berries are the fused fleshy scales of a cone, containing usually 3-5 seeds. The berries take three years to ripen and turn black when ripe. It is an important food plant for insects, and berries are eaten by birds such as thrushes, fieldfares and waxwings. Juniper has long been known as a medicinal herb with digestive, diuretic and antiseptic properties, and berries have additional culinary uses in cooking and distilling.



Juniper, male cones



female cone and berries

*Common Rock-rose (*Helianthemum nummularium*)

(FD, RR) May – September. *Helianthemum* comes from the Greek *helios*, 'sun', and *anthos*, 'flower', referring to its habit of opening in the sun. It is one of the food plants of the Green Hair-streak butterfly, which may explain why one has been seen on the hedge in a newly cleared area of the Roman Road, which is full of Rock-roses. It was believed to help cure physical diseases resulting from someone's

psychological condition and was recommended for symptoms such as terror, panic or hysteria.



*Wild Thyme (*Thymus polytrichus*)

(FD, RR) May – August. Forms low-growing mats of aromatic leafy stems and the flowers are highly attractive to insects. Besides its well-known culinary uses, Thyme is used in the manufacture of cosmetics, perfumes and liqueurs.

