

COUNTY: BEDFORDSHIRE

SITE NAME: BARTON HILLS

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981

Local Planning Authorities: South Bedfordshire District Council
Bedfordshire County Council

National Grid Reference: TL 090298

Ordnance Survey Sheet 1:50,000: 166 **1:10,000:** TL 03 SE, TL 02 NE

Date Notified (Under 1949 Act): 1951 **Date of Last Revision:**

Date Notified (Under 1981 Act): 1985 **Date of Last Revision:**

Area: 47.97 ha 118.53 ac

Other information: The majority of the site is leased and managed by English Nature as a National Nature Reserve. It is mentioned in 'A Nature Conservation Review' (Cambridge University Press, 1977). There have been boundary changes to exclude areas of arable land. The site lies within the Chilterns Area of Outstanding Natural Beauty.

Description and Reasons for Notification

Immediately south of Barton, the chalk escarpment forms a natural amphitheatre. At its head and along the eastern side, rising abruptly from the flat valley floor are steep-sided, rounded hills still retaining an extensive cover of unimproved chalk grassland supporting many species of grasses and flowering plants. Opposite, on the western slope is a small ancient beech *Fagus sylvatica* wood and developing secondary woodland and scrub. The scrub includes abundant hazel *Corylus avellana* which is an unusual coloniser. Part of the grassland has been quarried for chalk in the past and this area has now recolonised with a rich variety of flowers. A spring rises near the head of the coombe feeding a chalk stream which runs along the valley floor and adding a wetland element to the outstanding flora of this site.

Variations in aspect slope together with intensity of grazing in past management have produced a range of conditions from very short turf to long coarse grass. The long grassland is dominated by upright brome *Bromus erectus*, and the shorter turf, with abundant sheep's fescue *Festuca ovina*. This structural diversity in the sward ensures its value for many groups of insects. Typical herbs present are harebell *Campanula rotundifolia*, dwarf thistle *Cirsium acaule*, dropwort *Filipendula vulgaris* and cowslip *Primula veris*. Sheep grazing perpetuates this herb rich turf in which six species of orchid are known, including fragrant orchid *Gymnadenia conopsea* and bee orchid *Ophrys apifera*. The more uncommon plants present include woolly thistle *Cirsium eriophorum*, field fleawort *Senecio integrifolius*, flea sedge *Carex pulicaris* and, on the south facing slopes, pasque flower *Pulsatilla vulgaris*.

Ash *Fraxinus excelsior* occurs in the beech high forest over a shrub layer comprising hazel, spindle *Euonymus europaeus*, yew *Taxus baccata* and elder *Sambucus nigra*. Sweet chestnut *Castanea sativa* is locally common. Dog's mercury *Mercurialis perennis* completely carpets some areas of the woodland floor. Other species present are indicative of the site's ancient nature, for instance herb Paris *Paris quadrifolia*, wood anemone *Anemone nemorosa*, yellow archangel *Galeobdolon luteum* and nettle-leaved bell flower *Campanula trachelium*. Under the densely shading beech, white helleborine *Cephalanthera damasonium* occurs.