

File ref:

County: Durham **Site Name:** Castle Eden Dene

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

Local Nature Reserve declared under Section 21 of the National Parks and Access to the Countryside Act, 1949.

Local Planning Authority: Easington District Council

National Grid Reference: NZ 434396 **Area:** 192.97 (ha) 476.83 (ac)

Ordnance Survey Sheet 1:50 000 88, 93 **1:10 000** NZ 43 NW
NZ 44 SW

First Declared as an LNR: 1960 **First Notified as an SSSI:** 1984

Other Information:

1. The site is listed in 'A Nature Conservation Review', edited by D. A. Ratcliffe (1977), Cambridge University Press.
2. That part of the LNR situated east of the A1086 is included within the Durham Coast SSSI.

Description:

Castle Eden Dene is the largest and biologically the richest of a series of steep-sided wooded denes, formed as deep ravines in the Magnesian Limestone and boulder clay of the Durham Coast. Due to its size and difficult terrain large parts of the woodland remain comparatively free from human disturbance, despite the proximity of Peterlee New Town. The majority of the woodland is developed on base-rich soils with ash *Fraxinus excelsior* and wych elm *Ulmus glabra* as the main canopy species, although sycamore *Acer pseudoplatanus* is well established and yew *Taxus baccata* common. Hazel *Corylus avellana* is the most abundant shrub species, but guelder rose *Viburnum opulus*, spindle *Euonymus europaeus*, privet *Ligustrum vulgare*, dogwood *Cornus sanguinea* and spurge laurel *Daphne laureola* are also significant components of the shrub flora. The species-rich ground flora is dominated by wild garlic *Allium ursinum* with wood anemone *Anemone nemorosa*, dog's mercury *Mercurialis perennis* and sanicle *Sanicula europaea*, whilst in the humid valley-bottom there are locally extensive stands of hart's-tongue fern *Phyllitis scolopendrium*. Rare and local species include lily-of-the-valley *Convallaria majalis*, herb paris *Paris quadrifolia*, bird's-nest orchid *Neottia nidus-avis* and round-leaved wintergreen *Pyrola rotundifolia*. Juniper *Juniperus communis* and small-leaved lime *Tilia cordata* also occur in the dene. In the upper parts of the dene on boulder clay soils pedunculate oak *Quercus robur* and, to a lesser extent, birch *Betula pubescens* dominate the canopy, with an understorey of hazel, holly *Ilex*

aquifolium and rowan *Sorbus aucuparia*, and a ground flora containing tufted hair-grass *Deschampsia cespitosa*, or bracken *Pteridium aquilinum*.

The boulder clay slopes are inherently unstable and land-slips are frequent. These become colonised by a wide range of ruderal and wetland plants in which giant horsetail *Equisetum telmateia* is often abundant, whilst in time willow *Salix* spp. scrub becomes established.

At the western end of the dene is a small stand of grassland, containing blue moor-grass *Sesleria albicans*, rock rose *Helianthemum nummularium*, quaking grass *Briza media* and fragrant orchid *Gymnadenia conopsea*.

The insect fauna is exceptionally diverse and includes a large assemblage of nationally and regionally rare species, the best known being the elm feeding moth, Blomer's rivulet *Discoloxia blomeri*.