

ORCHIDS IN BRITAIN

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Although Britain has many square kilometres of dreary suburbs and industrial dereliction, there are still many haunts of wildflowers in the countryside. Those used to the modest splendour of New Zealand's orchids may be surprised by the vivid colours of their British cousins. My wife and I were also surprised by their ubiquity.

One of the magic places in England is Bernwood Meadows, just eight miles from the centre of Oxford. We found it by accident; there was a gap in the hedge which opened out to a car-park accommodating fully two vehicles. The Meadows, on heavy Oxfordshire clay soils, are maintained under traditional grazing management. In May, the green-winged orchids start to bloom; they would have been measured in their thousands in 1993. The Green-winged Orchid, *Orchis morio*, gets its name from the distinctive green veins on the hood-like sepals; the thick spur of its flowers (which may be purple, madder pink or even white) is tilted upwards. The orchids were flowering together with the cadmium-yellow Cowslip (*Primula veris*) and the lavender Cuckooflower (*Cardamine pratensis*), so the fields were completely dappled with colour. The glory of the orchids lasted for about three weeks, after which time the vernal and meadow grasses begin to overtop the dying flowers. The meadows are left until July, when the grasses are cut for hay, and cattle are then permitted to graze until the autumn. The only other orchid identified in the Meadows was the Early March orchid (*Dactylorhiza incarnata*), distinguished by pale pink, veined flowers and absence of hood markings.

Orchids are also found on calciferous, drier soils. At the Atomic Energy Authority's Harwell Laboratory later in the same month, I spotted a group of White Helleborines (*Cephalanthera longifolia*) growing around a beech tree near one of the gates. This orchid has bracts longer than the flower, with a yellow spot at the base of the usually hidden lip, which gives rise to the plant's nickname of "Poached-egg Plant". There is also a Red Helleborine (*C. rubra*) which is known from only one secret locality in the Cotswolds. Another orchid from the beech woodlands which I did not see was the Bird's-nest Orchid (*Neottia nidus-avis*); this is a curious, pale orchid which grows on the litter. It is a saprophyte, taking its nourishment from other decaying plant material with the help of a mycorrhizal fungus. In general appearance it reminds me of the chlorophyll-free parasite, Broomrape (*Orobanche minor*) which is, however, not an orchid.

Orchids on the grassy downs are less common than formerly owing to the more intensive cultivation of the hilly areas. On track margins one can still see in June and July the Pyramidal Orchid (*Anacamptis pyramidalis*), with its conical heads of magenta-pink flowers. By the side of an Iron Age hill-fort (the British equivalent of a pa) on the White Horse Hill, these conical-headed plants were noted besides the Fragrant Orchid (*Gymnadenia conopsea*), with its more cylindrical head of sweetly-scented flowers. On a previous visit several years ago, I had noticed a Bee Orchid (*Ophrys apifera*), but not this time. The lower lip of the latter has evolved to appear

like the rear of a bumblebee seeking nectar, in an attempt to encourage passing male bees to do their thing and effect pollination at the same time. Many of the bee orchids of northern Europe have given up this strategy, and are self-pollinated (Sutton 1988).

Members of the Orchidaceae are also found on more exposed sites. Holy Isle, off the Northumbrian coast, is home to a number of orchids growing in the damp "freshes" (freshwater hollows) on the low-lying island. In June, the most abundant orchid in flower was the Common Spotted Orchid (*Dactylorhiza fuchsii*), with its pale pink, spotted flowers with a large "tooth" or lobe in the middle of the lip. This was found in the company of the Heath Spotted Orchid (*D. maculata*), with narrower leaves and a less pronounced lobe. A particularly distinctive orchid was the Northern Marsh Orchid (*D. purpurella*), like a dwarf hyacinth in appearance with deep wine-purple flowers, a contrast to the paler flowers of the Early Marsh Orchid (*D. incarnata*). Although the same species grows on the heavy soils of Oxfordshire, it was about half that size on Holy Isle. Most of the orchids appeared to have provided tender shoots for rabbits and/or other browsers, as many of the leaf ends had been nibbled. One orchid I almost missed: it was spotted only when I was prone on the ground photographing another marsh orchid: the lowly plant was perhaps just 50 mm high. This Coralroot Orchid (*Corallorhiza trifida*) (cleft into three parts) has small greenish-yellow flowers and is easily missed in the presence of the showier marsh orchids and the creeping willow.

Windswept Iona is an island exposed to the Atlantic gales off the West of Scotland. On the lee shore, both the Early-purple and Heath Spotted Orchids were seen; the latter being sufficiently stunted to be considered a subspecies (*D. maculata* ssp. *ericetorium*). Even on the top of Staffa, the basalt island of Fingal's Cave fame, there are Spotted Orchids crouching in peaty hollows!

My wife and I spent a week in the Norwegian mountains on our return home. We took the gondola up Hangurffjell above Voss, and tried to follow one of the paths. We missed our way, and landed in a peat bog, only to find yet more orchids! These were probably smaller versions of the Fragrant Orchids seen on the White Horse Hill in Oxfordshire a month before.

REFERENCE

Sutton, D. 1988. *Field Guide to the Wild Flowers of Britain and Northern Europe*. Kingfisher, London