

CYNGOR CEFN GWLAD CYMRU
COUNTRYSIDE COUNCIL FOR WALES

SITE OF SPECIAL SCIENTIFIC INTEREST CITATION

DENBIGHSHIRE

GRAIG, LLANARMON-YN-IÂL

Date of Notification: 1999

National Grid Reference: SJ 201 566

O.S. Maps: 1:50,000 Sheet number: 116
1:10,000 Sheet number: SJ 25 NW & SJ 15 NE

Site Area: 22.1 ha

Description:

Graig is of special interest for its limestone (calicolous) and acid (calcifugous) grassland as well as its transitions from limestone and neutral through to acidic grassland.

Graig is a steep west facing escarpment located approximately 1 km to the east of the village of Llanarmon-yn-Iâl, which lies in the south eastern part of the Clwydian Range. The site rises over a series of stepped ridges, from an altitude of 275 metres to 355 metres at the crest of the scarp where it backs onto Graig Quarry. Rock outcrops and limestones ridges are frequent throughout, and there are also several small areas of limestone pavement, the largest of which is located in the north western section of the site. The site is divided into several enclosures which are grazed by sheep and cattle.

The bedrock is Carboniferous Limestone throughout, with the thinner soils derived from this. Some areas within the site are covered with glacial drift producing a more acidic soil. The site is free draining and can be rather drought prone where the soils are thinnest.

On the rockiest, thinnest and most drought-prone, base rich soils there are small patches of sheep's fescue *Festuca ovina* - carline thistle *Carlina vulgaris* grassland. The turf is short and open, being dominated by the grass, sheep's fescue. Other grasses such as crested hair-grass *Koeleria macrantha* and quaking-grass *Briza media* occur frequently, with characteristic calcicolous herbs such as common rock-rose *Helianthemum nummularium*, small scabious *Scabiosa columbaria*, wild thyme *Thymus polytrichus* and salad burnet *Sanguisorba minor*. Bryophytes form an important component of the turf and include such species as *Ditrichum flexicaule*, *Ctenidium molluscum*, *Tortella tortuosa* and *Hypnum cupressiforme*.

The less rocky areas with slightly deeper soils support sheep's fescue - meadow oat grass *Avenula pratensis* grassland. This calcareous grassland is typically dominated by grasses and sedges, the most frequent and abundant grasses being sheep's fescue, quaking-grass, crested hair-grass and sweet vernal grass *Anthoxanthum odoratum*. Glaucous sedge *Carex flacca* and spring sedge *Carex caryophyllea* are the two most frequent and abundant sedges. Associated forbs include common bird's-foot-trefoil *Lotus corniculatus*, salad burnet, wild thyme and lady's bedstraw *Galium verum*. The bryophyte layer is also well represented in this grassland. There are

areas of somewhat modified calcicolous grassland situated on the flatter ground and alongside existing footpaths. This tends to contain a number of nutrient loving species such as perennial rye-grass *Lolium perenne*, creeping thistle *Cirsium arvense* and musk thistle *Carduus nutans*.

There is also a small stand of secondary calcicolous grassland which has become established on old quarry spoil.

On the moister, more base-poor soils, small stands of sheep's fescue - common bent *Agrostis capillaris* - heath bedstraw *Galium saxatile* grassland occurs. On the deeper soils between the limestone ridges this acid grassland is dominated by grasses, including common bent, sweet vernal-grass, brown bent *Agrostis vinealis*, mat-grass *Nardus stricta* and sheep's fescue. The main characteristic herbs include tormentil *Potentilla erecta*, heath bedstraw and common bird's-foot-trefoil. There are various forms of this grassland within the site, ranging from the bitter-vetch *Lathyrus montanus* - betony *Stachys betonica* grassland type which contains a scattering of calcicolous herbs to the Yorkshire fog - white clover *Trifolium repens* grassland which supports more nutrient loving species such as Yorkshire fog *Holcus lanatus*, crested dog's-tail *Cynosurus cristatus* and white clover *Trifolium repens*.

On the drier deeper soils in the western most enclosure of the site there are stands of crested dog's tail - common knapweed *Centaurea nigra* grassland. The most abundant species in this neutral grassland include common bent, crested dog's-tail, common bird's-foot-trefoil, cat's-ear *Hypochoeris radicata* and ribwort plantain *Plantago lanceolata*. Species such as tormentil and lady's bedstraw are locally common. There is floristic variation in this grassland, ranging from species-rich swards through to those which have undergone some agricultural modification, characterised by the presence of species such as common mouse-ear *Cerastium fontanum* and common ragwort *Senecio jacobaea*. There are also very small stands of Yorkshire-fog and tufted hair *Deschampsia cespitosa* grassland.

The limestone pavement supports a variety of species including herb-robert *Geranium robertianum*, dog's mercury *Mercurialis perennis* and hawthorn *Crataegus monogyna*.

There are several uncommon plant species including frog orchid *Coeloglossum viride*, adder's-tongue *Ophioglossum vulgatum* and moonwort *Botrychium lunaria*.

On the more accessible and flatter areas of the site, agricultural modifications have produced semi-improved and improved areas of grassland. The site also supports localised stands of western gorse *Ulex gallii* with more extensive stands of dense scrub. There are also some small stands of dense bracken scattered throughout the northern section of the site.

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