

EAST BURREN COMPLEX

SITE SYNOPSIS - SITE CODE: 001926

This large site incorporates all of the high ground in the east Burren, and extends south-eastwards to include a complex of calcareous wetlands. The area encompasses a complete range of limestone habitats that include limestone pavement and associated calcareous grasslands and heath, scrub and woodland together with a network of calcareous lakes and turloughs. The site exhibits some of the best and most extensive areas of oligotrophic limestone wetlands to be found in the Burren and in Europe.

The limestone pavement includes smooth blocky and shattered types. The bare pavement is interspersed with species-rich calcareous vegetation communities. Typical grassland species found include Blue Moor-Grass (*Sesleria albicans*), Mountain Everlasting (*Antennaria dioica*), Bloody Cranesbill (*Geranium sanguineum*) and Wild Thyme (*Thymus praecox*). Limestone Heath is well developed in part of the uplands where Heather (*Calluna vulgaris*) and Bell Heather (*Erica cinerea*) are common along with St. John's-wort (*Hypericum spp.*) and Tormentil (*Potentilla erecta*). Two rare plant species which are common to this habitat include the Hoary Rock-rose (*Helianthemum canum*) and Pyramidal Bugle (*Ajuga pyramidalis*); both species are listed in the Red Data Book. To the south-east around the western shores of Lough Bunny an interesting heath community with Bearberry (*Arctostaphylos uva-ursi*) occurs at one of its few inland lowland locations in the Burren.

Caves are a feature of this site, with four known natural limestone caves showing a variety of formations and passage types. Vigo Cave has one of the best undisturbed cave entrance facies in Ireland and is considered a valuable karst heritage landform. Glencurrane Cave shows some fine phreatic solution features and one passageway, known as "Crinoid Tower" shows an abundance of crinoids which have been etched out by splashing water. Gortlecka Cave and a series of small caves above Lough Inchiquin are other fine examples of this habitat.

Ballyeigher Loughs complex to the east is a large network of calcareous lakes and turloughs with associated fen, cut-away bog and calcareous marsh habitats. The complex contains many species of plant and animal that are found in areas of fluctuating water levels. The fen flora is well developed and large areas of Great Fen-sedge (*Cladium mariscus*) and Black Bog-rush (*Schoenus nigricans*), with a diverse complement of associated species occur. Some of the best and most extensive calcareous swamp fen communities in the country occur within this complex and further north-east around the shores of Lough Bunny. Between this lake and the Coole-Garryland turlough complex to the north east of the site, another area of oligotrophic limestone wetlands occurs. This type of ecosystem is now very rare in Europe and many of the habitats found are listed on Annex I of the EU Habitats Directive.

Many fine examples of turloughs occur within the site; Carran Turlough is an oligotrophic turlough *par excellence* with many interesting features in its flora and vegetation. It is rated as of international importance. Lough Atedaun is a good example of Burren wetland habitat. The aquatic plant communities are well developed and the rare, Red Data Book species, Mudwort (*Limosella aquatica*), occurs here.

Scrub cover is relatively good in this area of the Burren with large expanses of Hazel (*Corylus avellana*) intermixed with Spindle (*Euonymus europaeus*), Guelder Rose

(*Viburnum opulus*) and Blackthorn (*Prunus spinosa*). An interesting scrub community of Alder Buckthorn (*Frangula alnus*), a Red Data Book species, Buckthorn (*Rhamnus catharticus*) and Shrubby Cinquefoil (*Potentilla fruticosa*), also a Red Data Book species, fringes the shores of some of the lakes and turloughs to the east.

Ballyeigher Wood to the east is an unusual scrub community on limestone with regenerating Oak (*Quercus sp.*) amongst Hazel (*Corylus avellana*), Ash (*Fraxinus excelsior*), Holly (*Ilex aquifolium*) and Hawthorn (*Crataegus monogyna*) and is an example of a woodland type that is rare in the Burren region. The eastern edge of Slieve Carran is dominated by steep cliffs and scree slopes over which Ash and Hazel wood is developed. This represents one of the few remaining woodland habitats in the Burren.

The East Burren Complex includes sites for many rare vascular plants and bryophytes (mosses and liverworts) and for several rare lichens and stoneworts.

In the east Burren wetlands Mute Swan and Whooper Swan occur in internationally important concentrations, while Wigeon, Lapwing, Dunlin, Black-tailed Godwit and Goldeneye are also very numerous. Also found in wetlands on the site (e.g. Lough Atedaun, Carran Turlough, Lough Aleenaun, Lough Inchiquin, Lough Bunny, Lough Cullaun, Muckanagh Lough) are Bewick's Swan, Teal, Mallard, Gadwall, Shoveler, Tufted Duck, Curlew, Golden Plover, Coot and Little Grebe. The site also supports a flock of Greenland White-fronted Geese. Several of these species are listed in the Red Data Book and on Annex I of the EU Birds Directive.

A nesting pair of Peregrine Falcon, a species listed on Annex I of the EU Birds Directive, occur on Glasgeivnagh Hill. The east Burren wetlands are frequented by Sparrowhawk, Kestrel and Hen Harrier, a rare species which is also listed on Annex I of the EU Birds Directive. Pine Marten and Otter have been recorded regularly within the site - both are listed in the Red Data Book as they are considered threatened in Europe, the latter also on Annex II of the EU Habitats Directive.

The site supports an internationally important population of Lesser Horseshoe Bats, with an estimated 400 individuals. There are two known nursery roosts, a transition roost and four known winter sites, the latter all in natural limestone caves. Pipistrelle and Long-eared Bats also occur. All of these species are listed in the Red Data Book, the former also on Annex II of the EU Habitats Directive. The Lesser Horseshoe Bat is a small, delicate bat which is confined to six western counties, Mayo, Galway, Clare, Limerick, Kerry and Cork. It forages close to woodland and at the edges of water. The Irish population of this species is estimated to be about 12,000 individuals and may be the largest national population in Europe. The Pipistrelle Bat is the smallest bat to occur in Ireland and is the commonest and most widespread species. Pipistrelle Bats forage where small insects gather, in gardens, along hedgerows and trees, over ponds and along rivers. The Long-eared Bat is the second commonest bat in Ireland and is easily identified by its long ears which are nearly as long as its body. The Long-eared Bat forages in and along woodland where they glean insects off foliage. Since the bats moved into their present location, the roof has been replaced and timbers treated, but this does not seem to have disturbed the nursery colony. The surrounding habitat is ideal for the Lesser Horseshoe Bat's foraging habitat, being a mixture of lake, river, woodland and hedgerows. A number of small caves in the surrounding countryside raises the possibility of a nearby hibernation site. The bat colony is of international importance because of the numbers of Lesser Horseshoe Bats roosting there during the summer months and because of the close proximity of suitable foraging areas and potential hibernation sites.

The site includes a large population of Marsh Fritillary, a species of butterfly listed on Annex II of the EU Habitats Directive. The site also supports the only known populations of Slow Worm (*Anguis fragilis*) in Ireland - this lizard is believed to have been introduced in about 1970. Arctic Char (*Salvelinus alpinus*), a Red Data Book fish species has been recorded from Lough Inchiquin.

Most of the site is grazed by cattle and sheep, and in some areas, particularly the uplands, by goats. Slieve Carran is a Statutory Nature Reserve, while some 750 square km within the region of Mullaghmore makes up the Burren National Park.

Clearance and intensification of agriculture has caused damage to some parts of the site. This threatens the heath and scrub communities and may cause eutrophication (nutrient enrichment) of the lakelands to the east. Drainage and land reclamation have occurred in places around the edges of wetlands, while some marginal fen areas have been afforested. Areas of agriculturally-improved land have been included within the site in order to protect the hydrology and nutrient status of the wetland system.

The East Burren Complex is of international scientific interest owing to the presence of fine examples of typical Burren habitats together with an oligotrophic wetland complex of lakes, turloughs, fen, cut-over bog and calcareous marsh. The Ballyeigher complex represents an excellent example of a nutrient-poor calcareous lake and fen system, of European significance. The only remaining woodland habitats to be found in the Burren occur within the site. The site contains twelve habitats that are listed on Annex I of the EU Habitats Directive and three species of plant and animal listed on Annex II of this Directive and, as such, is of major conservation significance. The occurrence of many rare plants and several rare mammals within the site adds considerably to its scientific and conservation value. The site is of high ornithological interest for the internationally and nationally important numbers of waterfowl that use it.

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Source:

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