

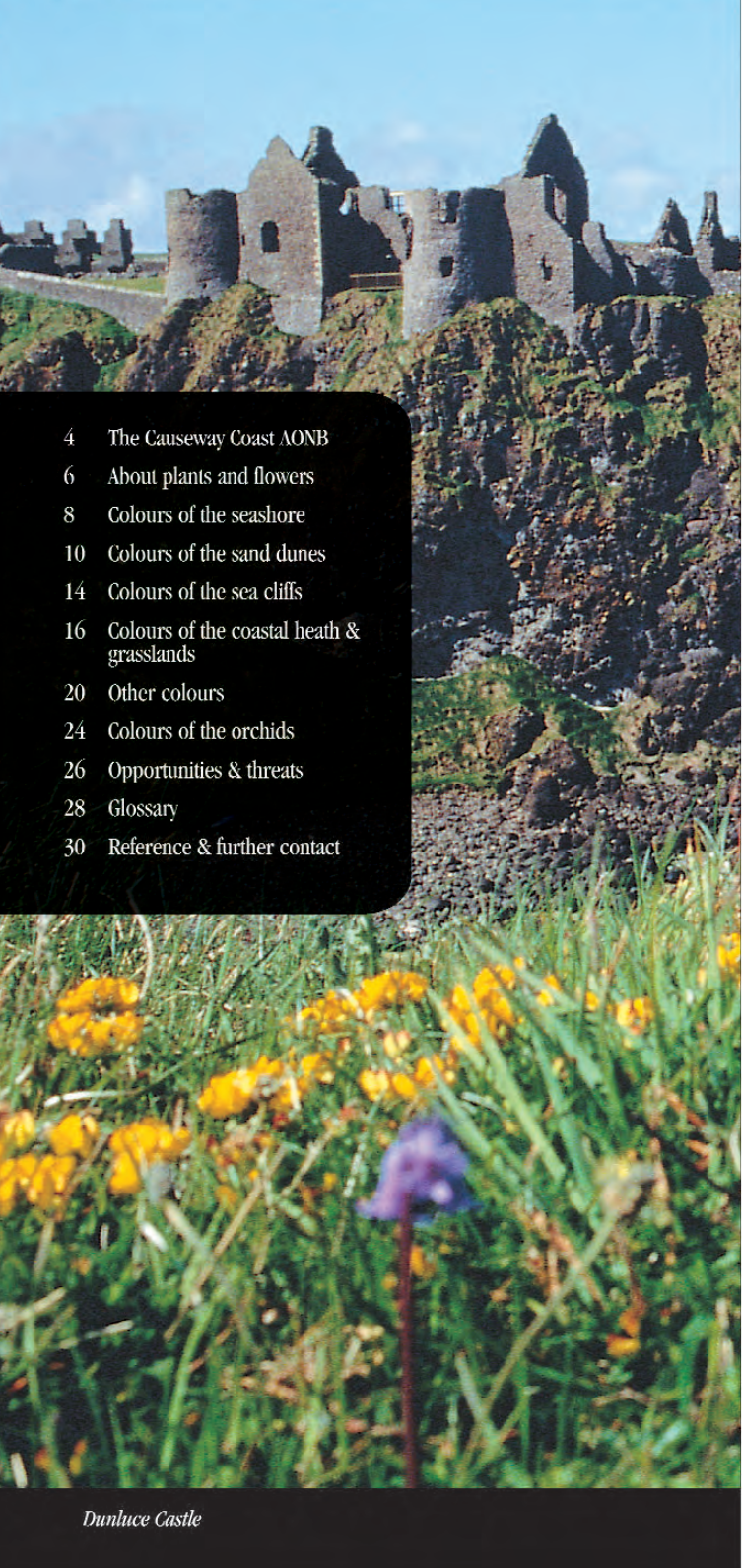
Causeway Coast



Area of
Outstanding
Natural Beauty

Colours of the Causeway Coast

*A guide to the Wildflowers of
the Causeway Coast Area of
Outstanding Natural Beauty*



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The Causeway Coast AONB

The Causeway Coast Area of Outstanding Natural Beauty (AONB) is one of 9 AONBs in Northern Ireland and one of 49 in the United Kingdom recognised as being a landscape of national importance. Designated in 1989 as an AONB for its landscapes of national importance the Causeway Coast AONB stretches from Portrush to Ballycastle. Extending for 30km along the North Antrim Coast, the AONB has a wide variety of landscapes including the Giant's Causeway and Causeway Coast World Heritage Site. The Giant's Causeway and Causeway Coast site was inscribed as a World Heritage Site by UNESCO in 1986. It is the only World Heritage Site in Northern Ireland and one of three on the island of Ireland.

The AONB is characterised by a complex and distinctive coastline including beaches, sand dunes and contrasting basalt and chalk cliffs. Some of the sand dune systems such as White Park Bay are extensive and dynamic habitats with fore-dunes, mobile dunes and fixed dunes evolving into grassland and scrub.

The cliff tops mainly consist of rich coastal heath and unimproved/species rich grassland. The Causeway Plateau contains very few trees and is mainly used for grazing with field separated by hedges.

The ecology around Bushmills and the Bush Valley is distinctive from other areas of the AONB and mainly influenced by the Bush River. It is also influenced by human activity with planted woodland and mixed farmland.

For its small area the Causeway Coast AONB has a wide range of habitats highlighting the diversity of wild flowers found. This wide range of habitats is influenced by various natural conditions. These include the type of soil (the acidic basalt or basic chalk), the humidity, the stability of the soil, the

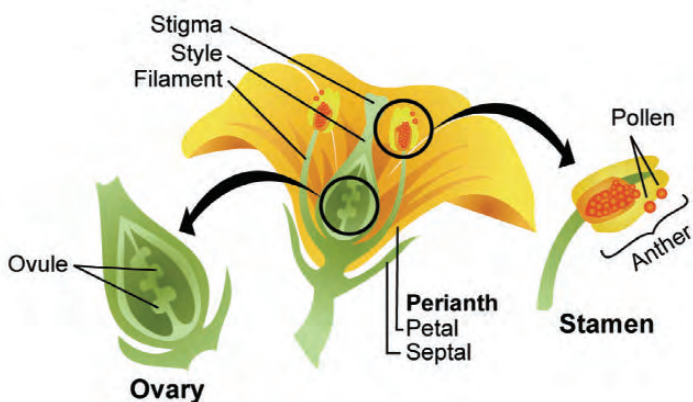


Carrick-a-rede coast

exposure to the wind, the sea and the sun and the presence or absence of other plants.

All these conditions affect the wide variety of wildflowers found in the Causeway Coast AONB, adding many colours to the landscape when blooming in spring and summer.

This guide gives a non-exhaustive description of the wildflowers that can be spotted along the Causeway Coast AONB. Wildflowers are described for each natural habitat of the Causeway Coast AONB, however some of the wildflowers may be present in more than one habitat and are sometimes absent from a habitat they should normally associated with. Some of the flowers described are rare and sensitive; care needs to be given when visiting the area to preserve these flowers and to look after the wider environment.



About plants and flowers

Flowers are found on some plants called angiosperms or flowering plants. Land plants are separated in many groups depending on their structure and type of reproduction.

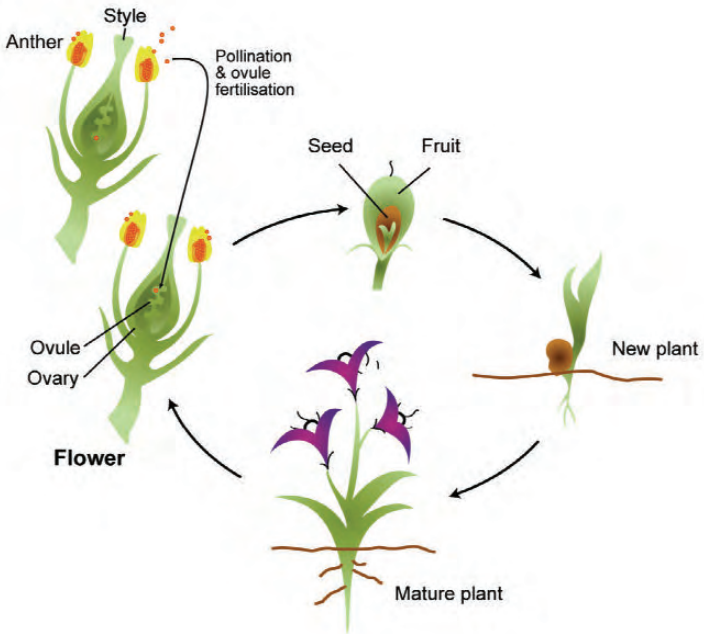
Land plants (or embryophytes) can be either non-vascular (bryophytes) or vascular (tracheophytes).

Bryophytes lack vascular tissue that circulates liquids. They neither have flowers nor produce seeds, reproducing via spores. They include liverworts and mosses.

Tracheophytes are those plants that have lignified tissues for conducting water, minerals, and photosynthetic products through the plant. This group is divided into the non-seed bearing plants and the seed bearing plants (or spermatophytes). The non-seed bearing plants include the ferns.

Spermatophytes (or phanerogams) comprise those plants that produce seeds. This group can be divided in non-flowering groups and flowering group. Flowering plants (or angiosperms) are the most widespread group of land plants. The flower is the reproductive structure of the angiosperms. The biological function of a flower is to facilitate the union of pollen (male cells) with the ovules (egg cells) to produce seeds.

Self-pollinated flowers (or cleistogamous) are flowers that pollinate themselves before the flowers open. Only few plants are



self-pollinated. Insect-pollinated flowers (or entomophilous) attract and use insects such as bees or butterflies to transfer the pollen from one plant to the other. These are bright and colourful to attract insects which feed off the nectar. The insects become covered in pollen which is then transferred to another plant of the same type when they move on for more nectar. As a result, the pollen falls onto the female reproductive parts of the flowers and fertilise the ovules. These include most of the bright wildflowers found along the Causeway Coast. Wind-pollinated flowers (or Anemophilous) use wind to help pollinate. These flowers are often dull and drab as they do not need to attract insects.

They also are often unremarkable and coloured green or yellow. These include species such as the marram Grass.

Most of the flowers described in the guide are native wildflowers. Some flowers found in the countryside are non-native as they have been planted or deliberately introduced by people. Some, like rhododendron, laurel and Japanese knotweed can grow so prolifically that they smother natural vegetation to the detriment of native wildlife.



Colours of the seashore

Just above the limit of high tide the foreshore, with its harsh living conditions, is a very exposed habitat for plants. Sea water spray, wind and unstable soil, gravel and sand make difficult conditions for plants to gain a foothold. However specially adapted plants manage to colonise this area. These plants are usually small, low growing with fleshy leaves and include species such as the scentless mayweed, sea milkwort, sea sandwort, sea beet, spear-leaved orache, sea bindweed, scurvygrass, sea holly, oysterplant, Scots lovage and sea couch. In more sheltered areas species adapted to regular immersion by the tide such as the sea aster or the saltmarsh flat sedge colonise the saltmarsh habitats.

Oysterplant

(*Mertensia maritima*)



Ireland is the southern limit of the distribution of this plant. The plant blooms between June and August with flowers arranged as a 'grape' with first pink then blue flowers. The plant grows in the upper part of the shingle. This is a rare plant protected in Northern Ireland under the Wildlife Order (NI), 1985 (see page 27).

Scots lovage

(*Ligusticum scoticum*)



Northern Ireland is the southern limit of the distribution of this rare plant. It is found in the upper seashore usually on rocks or shingle. Part of the umbellifer family, like the carrot, it blooms with white flowers arranged in umbels between June and July.



Scottish scurvygrass
(Cochlearia officinalis ssp. Scotica)
 A smaller form of the common scurvygrass this plant is considered as a subspecies. It is endemic to Britain and Ireland and not found elsewhere. The plant blooms between April and June and the flowers are small, with four white or pale mauve petals. It is a rare plant of the seashore compared to the widely spread common scurvygrass. The Scottish scurvygrass is a UK Priority Species (see page 27).

Sea aster
(Aster tripolium)



Found along the seashore, especially in saltmarshes, the Sea Aster is the only native wild Aster. Over the summer the plant produces a handsome lilac or pale blue daisy-like flower. The flowers have a star shape hence the name of the plant "aster", Greek word for "star".

Sea sandwort
(Honckenya peploides)
 Found in sandy areas of the shore, this evergreen perennial plant can be spotted throughout the year. The leaves are short and broad and arranged in four crowded rows along the stems. The whole plant is quite low growing. Flowers present



between May and August, are greenish white and rather insignificant, succeeded by a spherical green dry fruit.

Sea bindweed
(Calystegia soldanella)



This is a rare perennial native plant of sand or shingle. The flower is a typical bindweed trumpet-shape, bright pink in colour, open during the day and closed at night. The plant blooms between June and August.



Sea holly
(Eryngium maritimum)
 Another rare plant, sea holly is very distinctive and totally unmistakable. It occurs in sandy ground on the upper sea shore. It has broad leathery leaves, blue-green in colour with noticeable white veins. The thick waxy cuticle on the leaves prevents water loss and protects from the effects of saltwater. The plant blooms between June and August with tiny pale-blue flowers with spiny bracts.



Sand dunes are formed from wind-blown sand blown off exposed sandy beaches. The sand accumulates into ridges which originally lie parallel to the direction of the prevailing winds. Over time these ridges may break up and a more irregular arrangement of hills (dunes) and hollows (dune-slacks) forms.

Sand dune systems are of great importance to biodiversity, and many are preserved. The most important sand dune systems in the Causeway Coast AONB are White Park Bay, Bushfoot, East Strand and White Rocks.

Plant colonisation of the young dunes can assist the fixation of the dune. The marram grass *Ammophila arenaria* (pictured above) plays an important role in this process as it binds loose, wind-blown sand with a network of branching rhizomes. Marram grass is adapted to the dry conditions by having leaves which are tightly rolled to protect it from desiccation.

Once stabilised by plants such as the marram grass, the dunes can be colonised by other species such as the common bird's foot trefoil, spring squill, heath dog-violet and other colourful species, evolving ultimately into grey dunes where less than 10% of the dune comprises visible sand. Biodiversity in the dune slacks and grey dunes is notably high as better conditions are provided: sheltered from wind and salt spray enable more plants to colonise. A good example of this succession is White Park Bay, renown for the diversity of orchids present in the dunes (orchids are separately described on pages 24 to 25).



Spring squill

(*Scilla verna*)

One of the earliest plants to bloom in the dunes, the spring squill usually grows in short grazed swards, sometimes covering large areas of the dunes and forming characteristic light blue patches in early May. It is a member of the lily family. The best place to see this plant in the Causeway Coast AONB is at White Park bay.



Heath dog-violet

(*viola canina*)

Similar to the common dog-violet which is very common in hedgerows and woodland in Northern Ireland, the heath dog-violet differs by its blue colour and its presence in sand dunes. Like all violets, the lowest petal has a nectar-containing spur, which in this case is pale yellow.



Common bird's-foot-trefoil

(*Lotus corniculatus*)

This herbaceous perennial is very common in dry grassland such as the dunes. The plant blooms between June and September with recognisable yellow pea-flowers. Its black seed head looks like the toes of a bird's foot and the leaves have three lobes hence 'trefoil'.



Wild pansy

(*Viola tricolor*)

Very common in sand dunes, the flowers of the wild pansy occurs between April and September and can be violet, pink or yellow or all three colours together hence its latin name 'tricolor'.



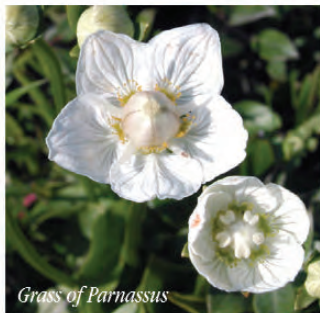
Field gentian



Portland spurge



Meadow crane's-bill



Grass of Parnassus

Field gentian

(Gentianella campestris)

Small member of the gentian family the field gentian is found in dune grasslands. Its flowers always have 4 petals and sepals and are reluctant to open except in bright sun. They are normally bluish-purple.

Meadow crane's-bill

(Geranium pratense)

A beautiful wild geranium, the native distribution of the Meadow Crane's-bill is restricted to the Causeway Coast AONB in Northern Ireland. It has however been introduced in other parts of Ireland. Its association with the North Antrim coast has given rise to its local common name of "Blue flower of Dunluce". Another more common coastal geranium, the dove's-foot crane's-bill (*Geranium molle*) can also be spotted in the dunes.

Portland spurge

(Euphorbia portlandica)

The Portland spurge and the sea spurge (*Euphorbia paralias*) are found exclusively on sand dunes; the Causeway Coast AONB being one of the few places where they are found. The Portland spurge is much commoner than the sea spurge and not as fleshy.

Grass of Parnassus

(Parnassia palustris)

This plant is actually not a grass but a flower. Its name is inherited from ancient Greece; the cattle on Mount Parnassus appreciated the plant therefore considered as an 'honorary grass'. The grass of Parnassus is mostly found in the slacks between the dunes as it requires wetter conditions. Its special and beautiful white flowers have five petals with conspicuous veins growing singly on stem tips.



Eyebright

Eyebright

(Euphrasia tetraquetra)

This eyebright is a native plant of the dunes. The upper lip of the flower has two upward-curving well-notched lobes as the lower lip is divided into three well-notched lobes. This is one of the few species of eyebrights recorded in Northern Ireland, all of them semi-parasitic on grasses and other plants.



Burnet rose

Burnet rose

(Rosa pimpinellifolia)

A beautiful native rose with creamy-white flowers and a very dark, almost black, round fruit or hip. This is the spiniest of all the native rose species.

Early forget-me-not

(Myosotis ramosissima)

This low-growing plant blooms between April and June with tiny mid-blue flowers with yellow centres.



Early forget-me-nots

Colours of the sea cliffs

The Causeway Coast AONB is renowned for its striking sea cliffs. The vegetation found along them varies depending on numerous factors such as the type of rock (basalt or limestone), the exposure to the wind or to the sun, the angle of the slope, the stability of the rock...

Numerous types of habitats can be found from the scrub type habitat at the sheltered cliff bottoms to the dry grassland at the top of exposed cliffs or shingle along cliffs exposed to winds and sea water spray. However some species such as sea campion, thrift and wild thyme are typical to the sea cliffs.



Sea campion

(*Silene uniflora*)

Sea campion is a common species of sea cliffs along the Causeway Coast AONB. Its white flowers appear in June and July and are noticeable with the inflated pinkish-brown cylindrical calyx tubes.

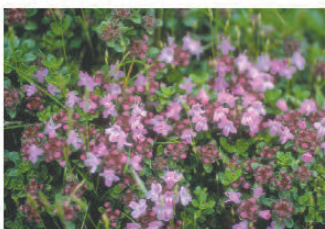
Thrift

(*Armeria maritima*)

Also called sea pink, this plant is



common along the Causeway Coast AONB. It turns large areas of cliffs pink over the end of spring and the summer, usually turning white later in the summer.



Wild thyme

(*Thymus polytrichus*)

Wild thyme is a native species common of rock outcrops. The plant forms dense, slightly aromatic mats, colouring the cliffs in pink-purple between May and September. The thyme broomrape (*Orobanche alba*) can be found within the mats as it parasitizes wild thyme. The plant is purplish-red when fresh, soon turning brown and dry-looking, like a dead plant. It has no green parts as it feeds on the host plant.

Juniper

(*Juniperus communis*):

Juniper is one of the two conifers native to Northern Ireland. Mostly low-growing as it is found in exposed situations such as rocky outcrops, male and female flowers are produced on different plants. The female flower produces berries which remain green for a year or so



Juniper



Kidney vetch



Rock-sea spurrey



Harebell



English stonecrop



Sheep's-bit

then ripen to become blue-black. This is a UK priority plant species as it has declined over the years. In Northern Ireland it has a restricted distribution, present on the Causeway Coast, Rathlin Island, the Mournes and Fermanagh.

Rock-sea spurrey

(Spergularia rupicola)

This is a common plant of the sea cliffs. The rock-sea spurrey blooms between June and September with pink or white flowers. The hairy leaves are fleshy and narrow.

English stonecrop

(Sedum anglicum)

Another typical plant found on rocky outcrops, the English stonecrop is a low-growing, spreading succulent species with small, usually reddish, leaves and white or pink star-shaped flowers. The leaves are fleshy, forming numerous rosettes and densely-leaved short shoots.

Kidney vetch

(Anthyllis vulneraria)

The kidney vetch, also called lady's fingers, is a common plant of coastal rocky outcrops in Northern Ireland. However a subspecies *Anthyllis vulneraria* ssp. *Laponica* is only found on the North Coast. The kidney vetch is more common on chalk soil.

Harebell

(Campanula rotundifolia)

Common sight along the Causeway Coast AONB, this pretty flower is found on the basaltic cliffs and in the dunes. The pale blue flowers are bell shaped and can be seen between July and September.

Sheep's-bit

(Jasione Montana)

The bright blue-purple flowers of this plant sprawl above ground. They can be spotted along the sea cliffs of the Causeway Coast AONB between May and August.

Colours of the coastal heath & grassland

These habitats are mostly found at the top of the cliffs. The Causeway Plateau contains very few trees due to the harsh wind conditions leaving space for a rich mosaic of heath and species rich grasslands. The type of plants found depends on the conditions on the ground such as the type of soil, its underlying geology, the humidity and drainage of the soil, the other species present and also level of grazing. Under-grazed areas allow the development of the gorse (or whin) and heather, sometimes developing into large impenetrable patches.

Dry grassland presents similar plants than those found on the fixed dunes (see pages 10-13) with plants such as spring squill, wood vetch or bird's-foot trefoil.

Chalk grassland is often home to a wide range of orchids, some of them described on pages 22-25.

Species of marsh and peat habitats can be found in wet pockets of land, such as cottongrass, bog asphodel, devil's-bit scabious, bog pimpernel and lousewort, alongside insect eating plants such as the sundew and the butterwort.

Where level of grazing is higher species such as the cuckoo-flower or the wild carrot can be found. On pastures and especially improved pastures the diversity of wildlife is limited as species of high grazing value are privileged through the more intensive use of fertilisers and pesticides.



Gorse

(Ulex europaeus) and western gorse (Ulex galii):

Gorse or whin can be found in two forms. *Ulex europaeus* is the commonest species found all over Northern Ireland whilst in North Antrim *Ulex galii* is mainly found along the Causeway Coast. Both look similar producing dense masses of yellow pea-like flowers however *Ulex galii* is generally a smaller, more compact shrub, with smaller spines. *Ulex europaeus* blooms



Wood vetch

throughout the year with a peak in spring whilst *Ulex galii* blooms mostly between July and September. Both develop in dense shrub taking over other species when overgrown and both prefer acidic soil. Gorse in bloom has a particular coconut smell.

Heather

(Calluna vulgaris)

Bell heather

(Erica cinerea)

Cross-leaved heath

(Erica tetralix)



Heather

These three species are very common in Northern Ireland in acid soils. They often grow at the expense of other species covering extensive areas. The flowers are pink-purple, very appreciated by bees and can be seen over the summer, especially late-summer. Flowers of bell heather and cross-leaved heath are bell shaped and completely different than the common heather (pictured below). Bell heather has dark green leaves, not grey above like cross-leaved heath.

Wood vetch

(Antennaria dioica)

This species (pictured above) is mostly found in heathy ground along the coast. It can reach up to 2m high and produces 5 to 20 white with purplish veins flowers in one sided inflorescence. The leaves have tendrils which allow the plant to attach to nearby support. A member of the pea family, the seeds are held in pods, released when dried and ripened in the sun.



Cottongrass

(*Eriophorum angustifolium*)

A common sight in acid peaty soils, the plant produces small, green/brown flowers in May/June followed by the fruits covered with white, cotton-like hairs.



Bog asphodel

(*Narthecium ossifragum*)

Common in wet and very acidic situations, the bog asphodel is between 10 and 40cm tall and consists of an erect leafy stem, which terminates in a group of 6 to

20 star-like yellow flowers at its tip. These flowers appear between July and September then are replaced by orange-brown fruit-capsules. It was once thought that cattle grazing on this plant suffered from brittle bones and this is reflected in the plants Latin name of ossifragum, meaning 'bone breaker'. In fact the lack of calcium in bog plants as a whole would have led to nutrient deficiencies in those cattle that grazed there.

Common butterwort

(*Pinguicula vulgaris*)

Round-leaved sundew

(*Drosera rotundifolia*)



Common on wet boggy soils, the butterwort and the sundew have leaves and stems covered with sticky glands which trap insects. The soft part of the insects are digested and absorbed into the leaf. This is an adaptation to nutrient-poor soils.

The single flower of the common butterwort is a beautiful blue colour and is carried on a long stalk arising from the centre of the leaf rosette.

Devil's-bit scabious (*Succisa pratensis*)



Common in wet grounds, the Devil's-bit scabious blooms in July to September giving typical blue-mauve flowers. It is so called because its roots stop abruptly as if they have been bitten off, apparently out of spite by the devil jealous because of the healing properties of the plant!

Cuckoo-flower (*Cardamine pratensis*)



The cuckoo-flower is a common herbaceous plant of damp meadows and pasture. It is so called because of its time of main flowering coinciding with the arrival of the cuckoo in spring. The flowers are very variable in colour from white to mauve and the basal leaves are round/oval.

Wild carrot (*Daucus carota*)



The wild carrot is frequent in dry pastures in the Causeway Coast AONB. It is the wild ancestor of our cultivated carrot. It blooms biennially (every two years) in June-August and gives umbels of small white or white/pinkish flowers with the central flower often red and attracts huge numbers of pollen and nectar hungry insects.



Other colours

Although coastal, cliff and grassland habitats represent the main natural habitats of the Causeway Coast AONB, other habitats occur here too: woodland, hedges, rivers and standing waters add to the diversity of the landscape and have their own characteristic plants.

The main river in the Causeway Coast AONB is the river Bush. Alongside it and around wet flushes in other parts of the AONB, species adapted to very wet conditions such as the yellow iris or the marsh marigold can be seen.

Small pockets of woodland especially around Bushmills are present mostly planted by man. Some plants commonly found in Northern Irish woodlands can be seen such as the primrose, the common dog-violet, the wood anemone, the bluebell or the wild garlic. Most of them flower in early spring, before the trees get their leaves.

Hedges separating farmed fields are very rich habitats and the number and diversity of plants present there is high. Species like hawthorn, blackthorn, bramble, fuchsia or gorse form give the hedges their structure with hedge bottom plants such as herb Robert or great horsetail also found. The strongly scented honeysuckle can also be spotted climbing hedges.

Yellow iris (*Iris pseudacorus*): A common species of wet ground the yellow iris is the only wild iris native to Ireland. Also called yellow flag, its bright yellow with purple veins flowers can be seen between May and July.



Common Dog-Violet



Marsh marigold



Primrose

Marsh marigold

(Caltha palustris)

The marsh marigold is very common on riversides around flushes or wet meadows. It produces golden-yellow flowers like buttercup but much larger in early summer.

Primrose

(Primula vulgaris)

Flowering in spring and early summer, the primrose is common in woodlands and hedgerbanks. The name of the plant is derived from *prima rosa* (the first rose) because

of the fact that it flowers early in the year. This species is protected under the Wildlife Order (NI) 1985.

Common dog-violet

(Viola riviniana)

The common dog-violet is common in shady places such as woodland and hedgerows. Blooming in early summer the plant produces violet-blue flowers with branched purple veins on lower petals. It is the commonest of the wild violets.



Wood anemone



Wild Garlic



Bluebell



Blackthorn

Wood anemone

(Anemone nemorosa)

The wood anemone is another early spring-flowering species found in woodlands with its delicate white flowers. The plant is a good indicator of ancient woodland.

Bluebell

(Hyacinthoides non-scripta)

Common in woodland and hedgerbanks, the bluebell often carpets the ground of bell-shaped blue flowers in spring. Flowers can occasionally be white or purple. The presence of the plant indicates long

established woodland. The introduced Spanish bluebell (*Hyacinthoides hispanica*) can in some areas take over the native Irish bluebell and threaten its population (see introduced species page 26).

Wild garlic

(Allium ursinum)

The wild garlic is another early spring species sometimes growing alongside species such as the Bluebell. It forms wide carpets of white flowers and fills the air with its characteristic strong garlic smell. The leaves and flowers are edible and can be used in salad or pasta dishes.

Blackthorn

(Prunus spinosa)

Common in hedges, the blackthorn is a spiny shrub producing masses of small white flowers before the leaves in spring, and equally large numbers of juicy fruits in the autumn. The Blackthorn fruits or "sloes" are too bitter for human consumption, except to make liqueur such as the sloe gin.

Fuchsia

(Fuchsia magellanica)

Commonly used for hedges, the fuchsia is not native to Ireland and was introduced from South America. It has been widely used as a hedging plant especially along the coast as it is a vigorous and fast grower. The flowers are similar to garden Fuchsia with red sepals and violet petals.



Fuchsia

Herb Robert

(Geranium robertianum)

The herb Robert is a common species of the geranium family found in woodland and hedges. It is easily recognised by its small pinkish-purple flowers, the characteristic fern-like leaves and reddish stem. The flowers can occasionally be white.

Great horsetail

(Equisetum telmateia)

Common in hedgebanks, the great horsetail produces two different type of stem. First in early spring it produces new unbranched whitish stems which terminate in large spore-producing cones. These are followed by the vegetative stem heavily branched, with whorls of 14–40 branches. The leaves are replaced by toothed sheaths.



Herb Robert



Great horsetail

Heath spotted orchid



Colours of the Orchids

Some sites within the AONB are particularly important for their wildflowers diversity. The dune system at White Park Bay, designated as an Area of Special Scientific Interest (ASSI), is the only dune system in the AONB not to be partially developed as a golf links. White Park Bay along other chalk grassland in the AONB such as at Larrybane or Carrick-a-Rede is particularly notable for its orchids some of them rare and sensitive.

The early-purple orchid, the earliest wild orchid to flower, the common spotted-orchid, heath spotted-orchid, and northern marsh-orchid, the fragrant orchid, so called because of its powerful scent, the lesser butterfly orchid and greater butterfly orchid, recognisable by the striking appearance of their white flowers, the common twayblade, taking its name from its two large oval leaves, the frog orchid, the pyramidal orchid, so called because of its rounded pyramidal shape, the bee orchid, the small-white orchid and the Irish lady's-tresses are present in the AONB.

Common spotted-orchid

(Dactylorhiza fuchsii)

Heath spotted-orchid

(Dactylorhiza maculata ssp. Ericetorum)

Northern marsh-orchid

(Dactylorhiza purpurella)

Probably the commonest wild orchid, the Common Spotted-orchid is especially found in damp pastures and dune slacks. The leaves are usually but not always spotted. The flowers vary enormously in colour from white to deep pink. It is often found alongside the heath spotted-orchid and the northern marsh-orchid with which it often produces hybrids. The heath spotted-orchid is



Bee orchid



Frog orchid



Small white orchid



Irish lady's-tresses

very similar to the common spotted-orchid but usually less spotted with flowers ranging from whitish to deep-pink. The northern marsh-orchid only produces deep purple flowers.

Frog orchid

(Coeloglossum viride)

With greenish flowers, the frog orchid is a rather discreet plant merging into the background vegetation. Found particularly in sand dunes it flowers between June and August.

Small-white orchid

(Pseudorchis albida)

This is a rare species also known as white mountain orchid. It is a small plant, rarely over six inches with a small compact flowerhead, with the yellowish-white flowers somewhat drooping and turned to the side. It flowers in June. This species is protected in Northern Ireland under the Wildlife (NI) Order, 1985.

Bee orchid

(Ophrys apifera)

The bee orchid grows in sand dunes and other calcareous habitats.

Common in the Mediterranean, it is a rarer species here, protected in Northern Ireland under the Wildlife (NI) Order, 1985. Each year it produces between 2 and 10 striking flowers blooming in June. Although the flower looks like a bee, an evolution to attract bees to pollinate the flowers, they are almost exclusively self-pollinating here.

Irish lady's-tresses

(Spiranthes romanzoffiana)

Only found in Europe in the UK and Ireland this species is widespread in America. It was first recorded in Northern Ireland in 1892. The flowers are tubular, whitish or cream-coloured, scented, and arranged in three slightly twisting rows along the spike as a tress hence its name. This species is rare and sensitive and is a UK priority species and protected in Northern Ireland under the Wildlife (NI) Order, 1985.



Opportunities & Threats

Whilst important to the social and economic life of the area some human activities can have a negative impact on our wildflowers. Equally many industries like tourism depend on a high quality environment. It is critical to ensure we manage this resource sensitively and appropriately for the benefit of future generations.

Coastal development

Development put a significant pressure on coastal natural habitats in the Causeway Coast AONB. The risk in allowing big stretch of development is the habitat fragmentation leading to the disappearance of plant communities and species unable to reproduce. Sand dune systems host a very diverse plant life, however only one of these in the Causeway Coast AONB has not been developed into a golf links.

Farming

Farming practice in Northern Ireland has shaped and still continues to shape our landscape and biodiversity. Pastures, an important farming activity in the Causeway Coast AONB has allowed the control of vigorous species such as gorse for the benefit of numerous other species to grow. However on improved pastures or overgrazed grassland the diversity of species found is dramatically lowered,

allowing a handful of grazing tolerant species to dominate such as the perennial rye-grass (*Lolium perenne*).

Other farming practices such as the field boundaries and hedges offer good refuges for Northern Ireland biodiversity and should be preserved and encouraged.

Both development and farming can lead to habitat fragmentation. For plants this can mean isolation of populations. Restricted genetic mixing makes small, isolated populations very vulnerable to extinction; juniper on the Causeway Coast is a good example of this. It is therefore important to look at a landscape scale when conserving plants to ensure that there are good linkages between good quality habitats (also known as green corridor).

Japanese knotweed



Introduced species

Plants not native from Northern Ireland have been introduced to Northern Ireland over time, some intentionally for farming purposes or for ornamental purposes in gardens, some unintentionally. Some of these can, as invasive species, out compete and replace native species. Plants like the Japanese knotweed (*Fallopia japonica*) native from east Asia and introduced in Irish gardens in the middle of the nineteenth century, can overgrow and form extensive patches which virtually obliterate other plant species, except for the early flowering species such as bluebell (*Hyacinthoides non-scripta*). Bluebell is also threatened by the Spanish bluebell (*Hyacinthoides non-scripta*) originating from the Iberian countries and North Africa which can take over or hybridize with the Irish bluebell (see page 22).

Climate change

In the long term, climate change poses the greatest threat to our environment. Climate change has the potential to completely change the physical, chemical and biological characteristics of our environment. Many argue this change is already well underway. The possible impacts

include the sea level rise that would take over the coastal species. Another impact, the change of climate with milder and wetter winters and drier and warmer summers could have an effect on many sensitive species.

Tourism/visitors

Although discovering and visiting the rich environment of the Causeway Coast AONB is an asset, care has to be taken to some sensitive species. A possible impact is that over-frequentation of a site, through tramping, may cause damage to the local environment. Also picking plants can have a significant impact on the reproduction of some species leading to their decline and also on the wider environment especially insects feeding on these plants.

Priority Species

In 1994 the UK developed its first list of Priority Species. In 1998 a Northern Ireland Biodiversity Group was set up and part of this group's remit was to identify Priority Species for Northern Ireland. This was achieved in 1999 in the Biodiversity Strategy Proposals. There are currently 382 UK Priority Species and 271 Northern Ireland's Priority Species. These are species under threat that require conservation actions. The conservation of these species is undertaken through the publication and implementation of Biodiversity Action Plans (BAP) at UK, Northern Ireland or All-Ireland level.

Wildlife (NI) Order, 1985)

All wild plants are given some measure of protection in Northern Ireland under the Wildlife (NI) Order, 1985. Some are given special protection to prevent intentional picking, uprooting or destroying them. The Order also provide a basis to control non native and invasive species.

Glossary

Biodiversity: Biodiversity is the variety of life in all forms, levels and combinations. The term biodiversity includes genetic diversity, species diversity, and ecosystem diversity.

Bract: A bract is a modified or specialized leaf ordinarily associated with the flowers. They are ordinarily reduced in size relative to the other leaves, or of a different colour or texture from the other leaves of the plant.

Calyx: Calyx is the collective term for the sepals of a flower.

Corolla: Corolla is the collective term for the petals of a flower.

Cuticle: The plant cuticles are protective waxy coverings produced by the plants to protect it from external factors such as water or wind.

Desiccation: Desiccation is the state of extreme dryness, or the process of extreme drying.

Endemic: Endemic species are species that are native, characteristic of an area.

Evergreen: An evergreen plant is a plant that has leaves all year round. This contrasts with deciduous plants, which completely lose all their foliage for part of the year.

Hybrid: A hybrid is the offspring resulting from cross-breeding of different species.

Inflorescence: An inflorescence is a group or cluster of flowers arranged on a stem.

Native: A Native plant is one that develops, occurs naturally, or has existed for many years in an area.

Parasitism: Parasitism is a type of relationship in which one organism lives in or on another organism and benefits from that relationship while the other organism may be harmed by it. A semi-parasitic plant does not entirely depend on its host but still carries on some photosynthesis.

Perennial: A perennial plant is a plant which lives for more than two growing seasons. All trees and shrubs are perennials.

Photosynthesis: Photosynthesis is the conversion of light energy into chemical energy by green plants.

Shingle: A shingle beach is a beach which is armoured with pebbles or small to medium sized cobbles.

Species/subspecies: A species is a group of organisms capable of interbreeding and producing fertile offspring. Populations of plants sharing certain characteristics that are not present in other populations of the same species form a subspecies.

Spur: The spur is a tubular extension at the base of the corolla in some flowers.

Scrub: Vegetation dominated by shrubs or bushes.

Succulent: Succulent plants are water-retaining plants adapted to difficult conditions such as arid climate or sea water spray. They store water in their leaves, stems and/or roots.



Outdoor ethics: LEAVE NO TRACE

1. Plan Ahead and Prepare

Check the weather forecast and always be prepared for changing weather conditions

Schedule your trip to avoid times of high use

Look realistically at the capacity of local facilities

For environmental and safety reasons, keep group numbers small

2. Be Considerate of Others

Share our trails

Yield to all

Treat another's property as you would treat your own

Let nature's sound prevail

3. Respect Farm Animals and Wildlife

Never feed farm animals or wildlife

Check signs and follow area dog regulations

4. Travel and Camp on Durable Ground

Stick to established trails

Travel in the middle of the trail

Good campsites are found, not made

5. Leave What You Find

Observe but do not touch them

Objects in nature derive much of their beauty from their surroundings and never look quite the same back home

6. Dispose of Waste Properly

Please take out all litter – yours and others

Let's all enrich everyone's outdoor experience and take out all litter

7. Minimise the Effects of Fire

Fires can cause lasting impacts and be devastating to forests, natural habitats and farmland

Remember every teaspoon of soil is home to hundreds of micro-organisms!

Practising a Leave No Trace ethic is very simple: Make it hard for others to see or hear you and LEAVE NO TRACE of your visit.

For more information visit www.leavenotraccireland.org



Early purple orchid

Reference and useful links

Further contacts and readings

The Wild Flower Key - How to identify wild plants, trees and shrubs in Britain and Ireland

Francis Rose and Clare O'Reilly. 2006.

The Wild Flowers of Britain and Ireland: A New Guide to Our Wild Flowers

Marjorie Blamey, Richard Fitter, and Alastair Fitter. 2003.

Wildflowers of Britain and Northwest Europe (DK Handbooks)

Christopher Grey-Wilson. 2000.

Irish Wildflower:

www.irishwildflowers.ie

Wild Flowers of the British Isles:

www.ukwildflowers.com

British Wild Flowers: www.british-wild-flowers.co.uk

Floral Images:

www.floralimages.co.uk

Flora of Northern Ireland:

www.habitas.org.uk/flora

Northern Ireland's Priority Species & Species of Conservation Concern:

www.habitas.org.uk/priority

Invasive Aliens in Northern Ireland:

www.habitas.org.uk/invasive/

Peatlands Northern Ireland:

www.peatlandsni.gov.uk

UK Biodiversity Action Plan:

www.ukbap.org.uk



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