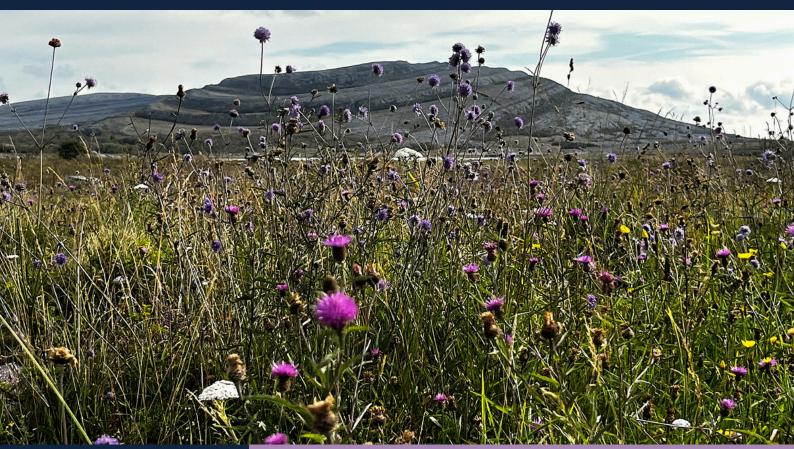


## Burren National Park





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National Park and signs of the changing seasons are now very much in evidence. Leaves are changing to russet browns, pale yellows and deep reds while berries and nuts have ripened on trees and bushes. Find out who eats what and why leaves change colour and fall off in our piece on Autumn Fruits and Foliage. The violet pin cushion flowers of Devil's-Bit Scabious and the bright pinks of the the Common Knapweed growing in abundance throughout the park offer bees, butterflies, hoverflies, beetles and other pollinators a vital late source of nectar. Read about how insects survive the lean winter months and take a more indepth look at the life of the grasshopper.

Stay informed on what has been happening and what's to come in our Summer Review and Events pages.





# Autumn Fruits and Foliage in the Burren National Park





Hazel Corylus avellana Coll is a deciduous shrub or small tree found throughout the Burren. The nuts of this tree are an important food source for small mammals such as squirrels, wood mice and bank voles. They provide protein, fat and minerals and can be cached or stored for the lean winter months. We ask that visitors to the Burren National Park refrain from picking or harvesting hazelnuts or berries so that our wildlife can continue to thrive and survive in their natural habitat.









The berries and drupes of Rowan *Sorbus aucuparia* Caorthann, Buckthorn *Rhamnus carhartica* Paide bréan, Guelder Rose v*burnum opulus* Caor chon and Blackthorn *Prunus spinosa* Draighean are a vital source of food for wildlife during the Autumn and Winter months. They are eaten birds such as thrushes, finches and other songbirds, as well as mammals like wood mice, bank voles, pine martens, badgers and foxes.

#### Leave the Leaves

As the summer draws to a close, shorter days and cooling temperatures trigger a cascade of amazing chemical reactions in our deciduous trees. Chlorophyll, the green pigment that powers photosynthesis begins to break down and fade revealing carotenoids, the gold and brown colours. Red and purple hues occur when some species produce a pigment called anthocyanin in response to cooler nights, bright light and sugars being trapped in the leaf. This means that bright sunny days and cool crisp nights lead to the greatest variation in colours. Damp cloudy or very mild weather will not lead to the same degree of colour change. At the base of each leaf stalk, a layer of cells form called an abscission layer which severs the connection between leaf and branch causing the leaf to drop off allowing the tree to conserve energy and water over the winter. One way we can help our wildlife is by leaving piles of leaves for hedgehogs and invertebrates to use as shelter during the cooler winter months.



## Grasshoppers are Amazing

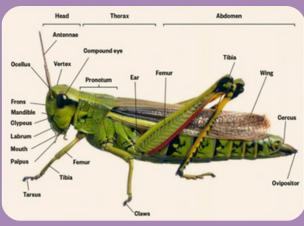


#### Grasshoppers are built for action

A grasshopper's anatomy includes three main body parts: the head, thorax, and abdomen.

The head houses sensory organs: antennae, eyes and mouthparts The antennae are used for smell and five eyes (2 compound, 3 simple) for detecting movement and light.

Their thorax has 3 pairs of legs and 2 pairs of wings. The hind legs store energy for jumping, enabling them to jump 20 times their body length. Their abdomen has breathing spiracles, reproductive organs - and ears!



Anatomy of a grasshopper

#### **Grasshoppers: Ancient Insects**

Grasshoppers date back 250 million years to the Triassic period, before dinosaurs roamed the Earth. They have evolved into agile ground-dwelling herbivores and experts at camouflage. They are a familiar sight - and sound - in summer Burren meadows.

#### Nature's Summer soundtrack

On warm days, grasshoppers fill the Burren air with rhythmic chirps. They "stridulate" by rubbing ridged legs against wing veins. Each species has its own signature tune - short chirps or long ticking songs. Some species also "pop" their wings mid-flight for dramatic effect

#### Grasshopper life cycle

In summer, females lay egg pods of up to 15 eggs underground. Eggs overwinter in their casing. They hatch from the egg in May into a larval nymph which undergoes five moults, becoming more similar to the adult at each developmental stage. Adults live just a few months, focusing on mating before winter ends their cycle.



Common field grasshopper



#### Meet the Orthoptera

Grasshoppers belong to the insect order Orthoptera, meaning "straight wings." Ireland is home to ten Orthoptera species. Seven are grasshoppers, including two Burren residents: Common Field Grasshopper and Common Green Grasshopper.

• Common Field Grasshopper
Chorthippus brunneus
Dreoilín teaspaigh féir
These are fairly large grasshoppers,
typically between 1.5-2.5 cm in
length. This grasshopper is usually a
mottled brown colour, but can vary
significantly from brown to grey,
orange and purple. It has barring on
the sides, and a hairy underside. It
also has wings and can fly. Its song
consists of short chirrups. The field
grasshopper is typically found in dry
areas with short grass.



Field grasshopper in the Burren National Park

• Common Green Grasshopper Omocestus viridulus
Dreolin teaspaigh féir
Up to 2.3cm in length, this species is mostly green in colour, but males can also be olive brown. Lines on the shoulders are incurved and white or cream in colour. Their wings are shorter than their bodies. They produce a long, loud ticking song that can last for 20 seconds and sounds like a freewheeling bicycle. Their habitat is damp, lush grass.



Common Green Grasshopper in the Burren National Park



## What happens to insects in winter?



The lower temperatures and shorter days of winter mean less food and shelter for insects. Insects are unable to generate their own heat internally and therefore must rely on external sources to provide heat; there is also a threat of them freezing.

Many insects will not make it through the winter months, those that do employ a number of complex methods to survive. Two broad strategies have evolved for their survival: migration, which is complete avoidance of the low temperatures and reduced resources, or overwintering, which is weathering the winter in situ in their usual habitat.

Overwintering occurs inside buildings, under tree bark, or beneath fallen plant matter on the ground. Insects use cues such as a shorter day length and cooling temperatures to start preparing for winter. Preparation may include finding protected sites, increased feeding and chemical changes in their bodies.



For some species, activity almost completely ceases in a sort of 'suspended animation', known as diapause. During diapause cell activity decreases, allowing for the conservation of energy reserves. Diapause is usually terminated in response to more favourable conditions and normal development of the insect will resume. Lots of insects enter diapause, for example the Small Tortoiseshell butterfly *Aglais urticae* Rúan beag, and most midges.



Migration allows for total avoidance of winter hardships. Many adult insects such as the Red Admiral Butterfly *Vanessa atalanta* Aimiréal dearg will migrate to Southern Europe. Insect migrations happen on a huge scale; some 17 million insects migrate to Southern Europe via the Pass of Buiaruelo in the Pyrenees every year, for example the Small White butterfly *Pieris rapae* Bánóg chabáiste.

Interestingly, dragonfly, stonefly and mayfly nymphs, as well as caddisfly larvae remain active in water bodies during winter.





## **Summer Review**





It was an exciting summer season in the Burren National Park. In July, Burren National Park Head Guide, Phoebe Larkin, presented a talk on the Biodiversity of Stone Walls as part of the Dry Stone Walls of the Burren Summit hosted by Common Knowledge.



Burren meadow flora



Rose Chafer Centonia aurata



Pyramidal Orchid

Anacamptis pyramidalis

During the Summer we ran a number of very enjoyable and well attended events in the Burren National Park including turlough tours and mini meadow safaris as well as a bug hunt for families. A flora ID workshop gave visitors to the park a chance to familiarise themselves with the abundant flowering species of the Burren, whilst our orchid tours provided a wonderful opportunity to learn about the many species of these remarkable flowers that grow in the Burren National Park.



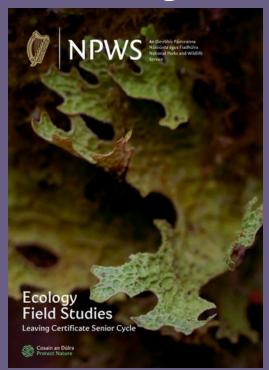
Our regular guided walks of the white and orange trails in the park as well as our tours of Slieve Carron Nature Reserve and Cahercommaun fort were also well attended by both individuals and organised hiking and wildlife groups.



# NPWS Education Opportunities for Schools



## Leaving Certificate Ecology Field Studies



NPWS staff are delighted to be able to offer Ecology Field Studies for the Leaving Certificate Senior Cycle during September and October in the woodland setting of Coole Park Nature Reserve. This hands-on session is ideal for student groups who need to gain practical experience of scientific ecological fieldwork theory and methods as part of the biology Senior Cycle syllabus. It also provides an insight into conservation work carried out by conservation rangers and ecologists within the setting of a National Park or Nature Reserve.

For further details and booking please email: coolepark@npws.gov.ie
Tel: 091 631804

# Primary School Educational Outreach Programme



We will soon be taking bookings for Primary School Outreach sessions which will be available from early November. NPWS guides are available to visit primary schools and deliver presentations on a range of topic including mammals, birds, biodiversity or the habitats, flora and wildlife of the Burren National Park.



## **Upcoming Events**



## **Burren Winterage Weekend 2025**

Burrenbeo Trust will be holding its annual winterage weekend from Friday 24<sup>th</sup> October to Sunday 26<sup>th</sup> October and the Burren National Park are delighted to be able to contribute to this very special event on **Saturday 25<sup>th</sup> October 11am-1pm.** 

**Where:** Near Carron, Co. Clare, exact location to be emailed closer to the time. The Burren National Park team invites you to a walk and talk at their recently acquired farm in Carron - hear about ongoing research and their involvement with the conservation of Irish heritage breeds of livestock.

The event will open with short talks on current and recent research projects based at the farm. A newly appointed PhD student will introduce a collaborative project with the Old Irish Goat Society and the University of Galway, investigating the use of Old Irish Goats to control invasive scrub and species such as Clematis vitalba. NPWS bursary students who spent the summer at McGann's Farm will also share their findings. Visitors will have the opportunity to meet representatives from the Old Irish Goat Society, hear about NPWS plans for heritage livestock conservation, and view a photographic exhibition of the Burren's unique flora.



Following the presentations, attendees will join a 2.5km farm walk through winterage pastures, archaeological sites, and Carron turlough. Along the way, NPWS staff will discuss habitats, flora and fauna, conservation management, and the human history of the Burren landscape. Please note that the route includes steep and uneven ground, and requires a reasonable level of fitness, along with appropriate outdoor clothing and footwear.

See www.burrenwinterage.com for all festival details and to book tickets.









## Míle buíochas - Thank you!



The free Burren National Park Shuttle Bus service stopped running on Sunday 31<sup>st</sup> August after its busiest season yet. This was also the first year of the Burren & Cliffs of Moher Explorer which included a route which ran from Corofin to the Michael Cusack Centre, Slieve Carran and on to Kilfenora, where it was possible to link up with other Explorer bus routes. We would like to take this opportunity to say Míle buíochas - thank you - to all the visitors for choosing this sustainable transport option and to our drivers for providing such



## Burren National Park Contact Information:

Email: burrennationalpark@npws.gov.ie

friendly and professional service!

Phone: 065 6827693

Burren Information Point: Clare Heritage Centre, Church Street, Corofin, Co. Clare

V95 T9V6

Páirc Náisiúnta Bhoirne Ionad Cuairteoirí, Sráid an Teampaill, Cora Finne, Co an Chláir V95 T9V6

Keep up to date with upcoming events this Autumn on our website or follow us on Facebook or Instagram.





Website: https://www.burrennationalpark.ie

