

Wicklow's Mountain Wilderness

Biodiversity of County Wicklow



Lough Ouler, Tonelagee

Faith Wilson

The formation of Wicklow's mountains — Fiery beginnings

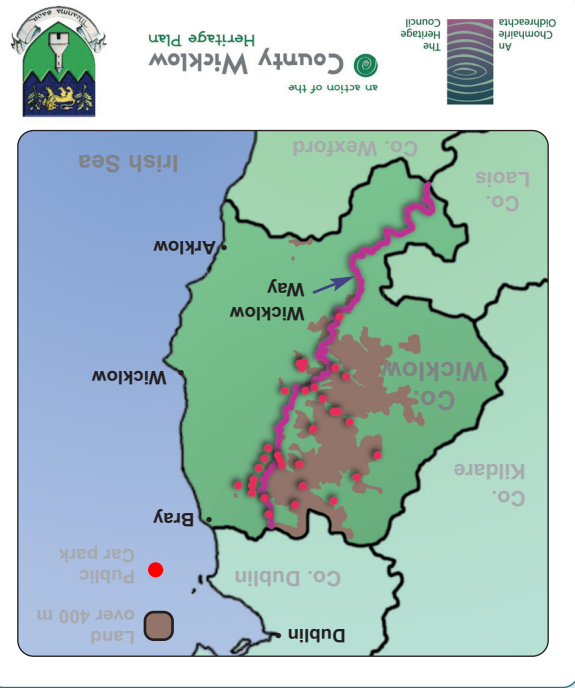
The backbone of the Wicklow Mountains is dominated by Leinster granite, which was formed following the collision of two continents c.445 million years ago. Large areas of molten rock were pushed upwards into the surrounding mudstone and sandstone rocks of the earth's upper crust. This molten rock cooled slowly beneath the insulating surface of the upper crust of the earth, allowing the large crystals of quartz, mica and feldspar (which forms granite) to develop. The heat from this caused the surrounding rocks to 'bake' and thus, shales were converted to mica schists; mudstones to slate; and sandstones to quartzite; by a process known as metamorphism. An example of a granite-schist junction can be seen on the cliff at Tonelagee. Mineral veins running through these areas slowly crystallised, producing seams of gold, iron, zinc, copper and tin. These veins were mined until recently at Avoca, and historically at Glendalough, Glendasan and Glenmalure.

The glaciation of the Ice Age resulted in the creation of U shaped valleys, rounded mountain peaks, corrie lakes, glacial spillways and lakes, and the deposition of boulder clay over much of the Wicklow lowlands.

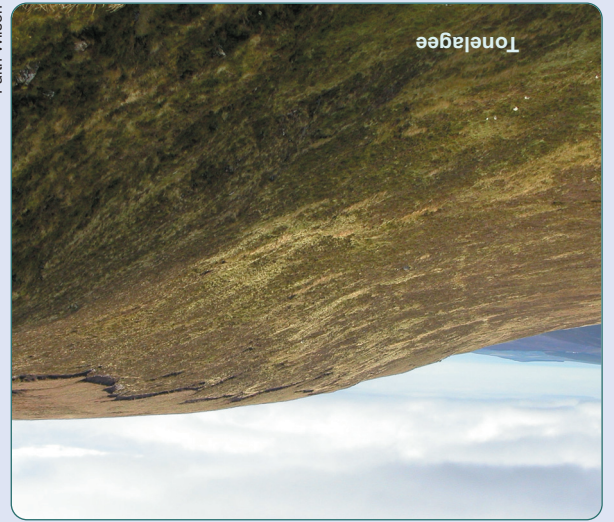
Text by Faith Wilson. Design by Michael O'Clery. Thanks to BirdWatch Ireland and all photographers for the use of their images. Cover photos: Fr Clubmoss; Faith Wilson; Gorse; Michael O'Clery; Deer; Dick Coombes; Arctic Char; Fran Igoe. Powerscourt Waterfall; Wicklow Film Commission.

Produced by the Heritage Office of Wicklow County Council, with assistance from The Heritage Council. This guide is one of a series exploring the Biodiversity of County Wicklow. For further information please contact the Heritage Officer. Tel: 0404 20100 or www.wicklow.ie/heritage

- Some useful websites**
- BirdWatch Ireland — www.birdwatchireland.ie
 - Collie — www.collie.ie
 - Eastern Regional Fisheries Board — www.erb.ie
 - The Heritage Council — www.heritagecouncil.ie
 - Irish Peatland Conservation Council — www.ipcc.ie
 - Irish Wildlife Trust — www.iwt.ie
 - Leave no Trace Ireland — www.leaveonotracerelief.org
 - Mountaineering Council of Ireland — www.mountaineering.ie
 - National Parks and Wildlife Service — www.npsw.ie
 - Notice Nature — www.notice-nature.ie
 - The Irish Char Conservation Group — www.char.org
 - Waymarked Ways of Ireland — www.waymarkedways.ie
 - Wicklow Mountains National Park — www.wicklowmountainpark.ie
 - Wicklow County Council — www.wicklow.ie
 - Wicklow Uplands Council — www.wicklowuplands.ie



Faith Wilson



Tonelagee

The Wicklow Uplands form the largest unbroken area of high ground in Ireland, reaching their highest point at Lugnaquilla at 925m. A rich variety of habitats are found here, including alpine heath, mountain cliffs and lakes, blanket bog, dry and wet heath, as well as large conifer plantations. The mountains are an important part of the natural heritage of County Wicklow, providing a mosaic of habitats, which in turn support a diversity of plant and animal life.

Faith Wilson



Carrigower Bog and Djouce Mountain

Faith Wilson



Lough Tay

Ice Age reminders — Alpine heath, mountain cliffs and lakes

Surprisingly, we not only have the shaped features of our mountain landscape to remind us of the last glaciation period, but we also have several species of flora and fauna to point to the occurrence of that great climatic event. High on the cold north and north-east facing cliffs of Lugnaquilla, and above the corrie lakes of Lough Ouler and Lough Nahanagan, remnants of a rich arctic-alpine plant community remain. These include arctic species such as Mossy Saxifrage, Alpine Saw-wort, Alpine Lady's-mantle and Parsley

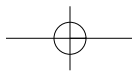
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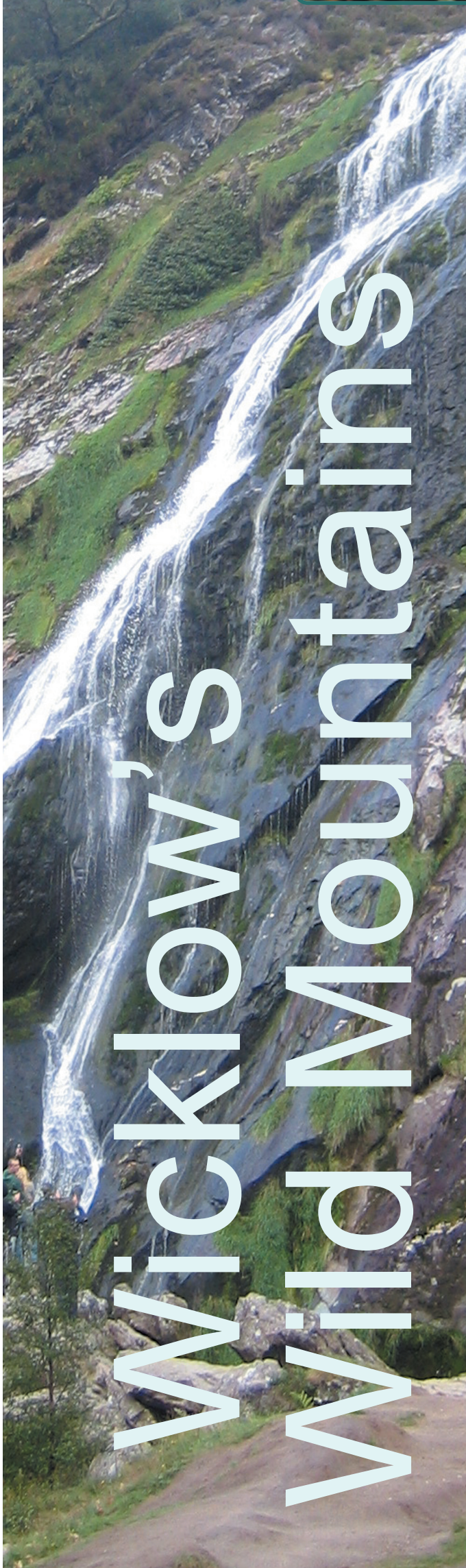
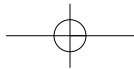


Starry Saxifrage

Fern, and rare species such as Starry Saxifrage and St. Patrick's Cabbage. On some of the high, exposed summits and mountain ridges, we find a thin covering of alpine heath with typical plants such as Crowberry, Alpine Clubmoss, Fir Clubmoss, Cowberry, Dwarf Willow, Stiff Sedge and Viviparous Fescue.

The high mountain cliffs provide nesting opportunities for birds such as the Raven and Peregrine Falcon while the scree slopes beneath them are a favoured nesting ground for the Whinchat, Wheatear and Ring Ouzel. Arctic Char, a lake-bound species of trout, was previously recorded in many of our high mountain lakes but has recently become extinct in Lough Tay, Lough Dan, and Glendalough due to acidification of the water from conifer plantations. Large areas of native oak woodlands are present around many of the mountain lakes such as Lough Dan, Lough Tay and in the Glendalough Valley. Species such as Red Squirrel, Pine Marten, Badger, Fox and a variety of bats are found in these habitats. Wood Warbler, Crossbill and Redstart, along with the more common woodland birds, breed in these areas.





Wicklow's Wild Mountains

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Lichen



Sparrowhawk

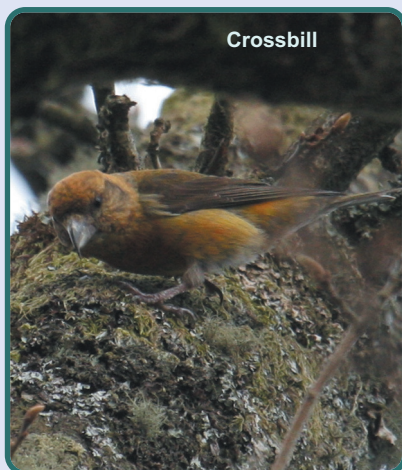
Ben Phalan

Carpets of heather — Blanket bog, dry and wet heaths

The majority of the Wicklow Mountains are covered in a blanket of peat of varying depths. Deep pockets of peat form in hollows and in the saddle between mountain summits forming species rich areas of blanket bog. One of the best examples of this is Liffey Head Bog formed of a rich mosaic of hummocks of Sphagnum Moss and hollows with Sundews and Bog Asphodel. Here, bog plants include cotton grasses, Ling, Cross-leaved Heath, Bog Rosemary and Deergrass, with Purple Moor-grass and Heath Rush on steeper slopes. This is a harsh, cold, windswept place for a plant to survive, surrounded by water, with few nutrients and a drying wind. These plants adapt in different ways to these conditions. Carnivorous plants such as Sundews and Butterworts trap and digest unwary insects while other species like Bog Asphodel and Cotton Grasses store nutrients in their roots. Shallow bog pools and larger lakes such as Lough Firrib support species such as Bog Bean and insects such as the Large Red Damselfly, Common Hawker, Water Boatman and the ubiquitous Midge.

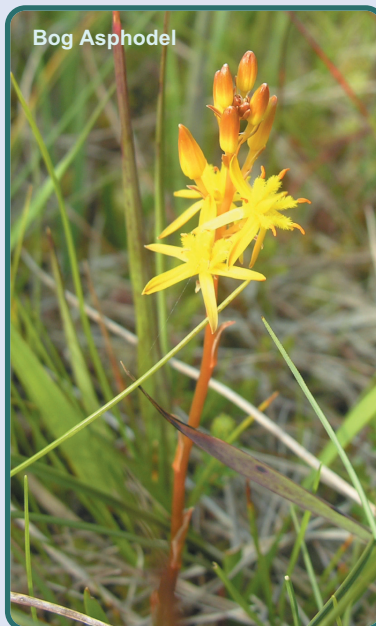
On shallower peats and slopes, heathland is the principal habitat and the mountain slopes continually change colour as the plants come into flower, seed and die back. Areas of wet heath are found on mountain slopes with deeper peats, where species such as Cross-leaved Heath, Tormentil, Cottongrasses, Ling, Mat-grass, Bent grasses and Bog Mosses are found. Unusual plants such as the Bog Orchid can be found amidst Sedges and Heath Rush next to small flushes and streams. Dry heath is found on shallow, peaty soils on steep slopes where drainage is better and species such as Ling, Gorse, Bell Heather, Bilberry, Purple Moor-grass and lichens are common. These areas of heath and bog are the main habitat for birds such as Red Grouse, Skylark and Meadow Pipit, and their predators; Merlin, Kestrel and Peregrine Falcon.

Herds of Red/Sika Deer hybrids are common in the Wicklow Uplands, however their well-camouflaged coats can make them difficult to spot until they move. Similarly, the droppings of the Irish Hare are more easily seen than the animal itself, which tends to be active at dusk and during the night. The Viviparous Lizard can be spotted sunning itself on rocks and bare peat while the Common Frog is more likely to be found in and around bog pools and flushes.



Crossbill

Christian Osthoft



Bog Asphodel

Michael O'Clery



Bogbean

Faith Wilson



Arctic Char

Fran Igoe

Wooded slopes — Conifer plantations

Many areas of the Wicklow Mountains have been afforested with plantations of non-native conifers such as Sitka Spruce. While lacking in floral diversity due to the density of planting and the lack of light to the understorey, these areas do provide breeding grounds for Goldcrest, Coal Tit and, as they mature, Kestrel, Sparrowhawk and Hooded Crow. Some of these areas, once felled on maturity, will be allowed to revert to heath and blanket bog.

Conservation of mountain habitats

Internationally and nationally important habitats or species within the county are designated as Special Areas of Conservation (SACs) or proposed Natural Heritage Areas (pNHAs). Special Protection Areas (SPAs) protect internationally important sites for bird life. Approximately 20,000 Ha of the Wicklow uplands are owned by the state and are protected within Wicklow Mountains National Park.

Visitor information

Many of County Wicklow's mountains are publicly accessible through the Wicklow Mountains National Park, with formal managed walking trails found in the Glendalough area. Walking access to the mountains is also available via many of the Coillte owned properties and car parks, and through way-marked routes such as The Wicklow Way and St. Kevin's Pilgrim Path. Visitors can do their part by adopting the principles of 'Leave no Trace' — leaving the mountains as they find them and reducing erosion by using the boardwalks where provided. Littering, disturbance to wildlife, picking of wildflowers and fires threaten the biodiversity of our mountains and should be avoided at all times. If you see illegal dumping in the Wicklow Mountains call the PURE hotline on 1850 365 121 to report it and the matter will be investigated and the litter removed.



Sphagnum Moss

Faith Wilson



Irish Hare

Clive Timmons



Red Grouse

John Carey

