

Early people and peat

Peat, also known as turf, is deep-rooted in our culture. Let us take you for a stroll through the story of peat...

'Oislin's Grave' (Cushendall) is a Neolithic court tomb. Courtesy Heartside Heritage Resources



Early People

The earliest known settlement in Ireland is at Mountsandel in Coleraine. It dates to around 10,000 years ago. At this time, Mesolithic people hunted and gathered wild food. They tended not to stay in permanent settlements as they relied on seasonal food. They used wood as fuel and to make tools, weapons and shelters.

Most of Ireland was covered in native trees such as scots pine, oak, ash, hazel, birch, rowan and willow. During the Neolithic period (4000-2500BC) the first farmers planted crops and kept animals. To create farmland, Neolithic people began clearing the wooded landscape. The easiest areas were cleared first, which was often in the uplands. At that time Ireland's temperature was warmer than today so crops and livestock could be raised at higher altitudes.

TOP RIGHT
Tievebullagh (Cushendall) and Rathlin were the centre of Neolithic porcellanite axe production in Ireland. The axe heads were exported to Britain and Europe. Courtesy of Ballymoney Museum



Bog mosses, known as Sphagnum, can hold between 16 and 28 times their dry matter weight in water. Mateusz Soltowski / Shutterstock.com

Why and how did peat form?

Tree removal changed the soil structure. This coupled with climatic cooling and increased rainfall led to water logging and leaching. These conditions encouraged the growth of bog mosses, known as sphagnum, which holds a great deal of water.

The high water content slowed down the decay of vegetable matter, leading to the formation of peat. Although some blanket bogs began to form 10,000 years ago, most range from 5,000 - 6,000 years.

Peat bogs

Lowland raised bogs develop in lowland areas such as valleys. They are raised in the middle like a dome, which gets bigger as the bog grows.

Blanket bogs are areas of wet peat land, where peat depth is greater than 50cm. They tend to occur in higher altitudes and in cool, wet climates. The name 'blanket bogs' refers to how they blanket or cloak entire landscapes. They are one of the most extensive semi-natural habitats in Northern Ireland.

From wood fuel to peat fuel

Throughout history, Irish trees have been felled for many uses. Ancient deforestation in the uplands coupled with the local climate created perfect conditions for peat formation.

Gaelic Ireland had an advanced legal system known as Brehon law (An Féineachas). One aspect of this law protected trees and shrubs against over-exploitation.

Under English rule, Ireland woodlands were exploited as a source of timber. Elizabeth I ordered the destruction of all woods in Ireland. This deprived Irish forces and rebels of shelter and provided England with timber resources.

In Ulster, the destruction of forests quickly accelerated after the defeat of the Gaelic leadership and the 16th & 17th century plantation period that followed.

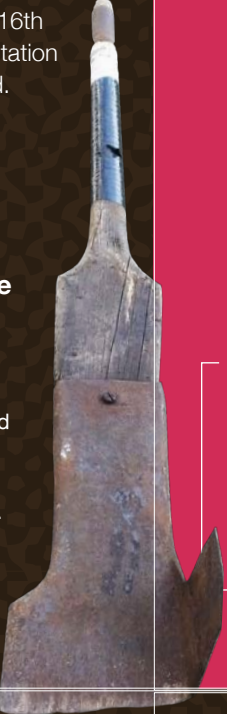


Courtesy of Coleraine Museum

Tools of the trade

The design of turf spades varied from area to area. Different types of spades were used for top layers and deeper digging.

This spade was used in the Glens of Antrim. Ballygally/Shutterstock.com



BELOW L-R
The following images are courtesy of Coleraine Museum

1. A 'turf slide car' for transporting peat at Glennaan.

2. For cooking a griddle, pot or kettle hung above or was placed within the fire. Meat and fish were preserved by smoking with peat.

3. The peat fire would have been kept alight all year round for heat, light and cooking.

5. A woman transporting peat with the help of a donkey and wooden panniers.



Extracting peat

In the Glens of Antrim, peat was traditionally cut using peat spades (sleaghán). The top few inches of vegetation were removed. Then, sods were extracted from the darker layers below. The peat was then left to dry over the next few weeks. Once dried, it was transported using animals, sledges, carts or baskets. Peat was ideally stored in a sheltered spot to reduce water logging.



ABOVE TOP TO BOTTOM
This image is reproduced courtesy of the National Library of Ireland [L_CAB_05183]

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Bog of conflict - Battle of Orra

In 1583 an important battle took place between the Gaelic families of Clann Domhnaill (McDonnells) and Clann Mhic Uidhlín (Mc Quillans). The Chieftain of the McDonnells, Somhairle Buidhe (Sorley Boy) won the battle by luring his enemy into a deep bog.

What was peat used for?

With the rapid devastation of the great forests of Ulster, a major sustainable heat resource was lost. Irish people came to depend on peat as their source of fuel for cooking, heat and light. Turbary, the right to dig fuel was vitally important to poverty stricken tenant farmers.

Peat has also been popular in horticulture due to its nutrient provision and soil water management properties.

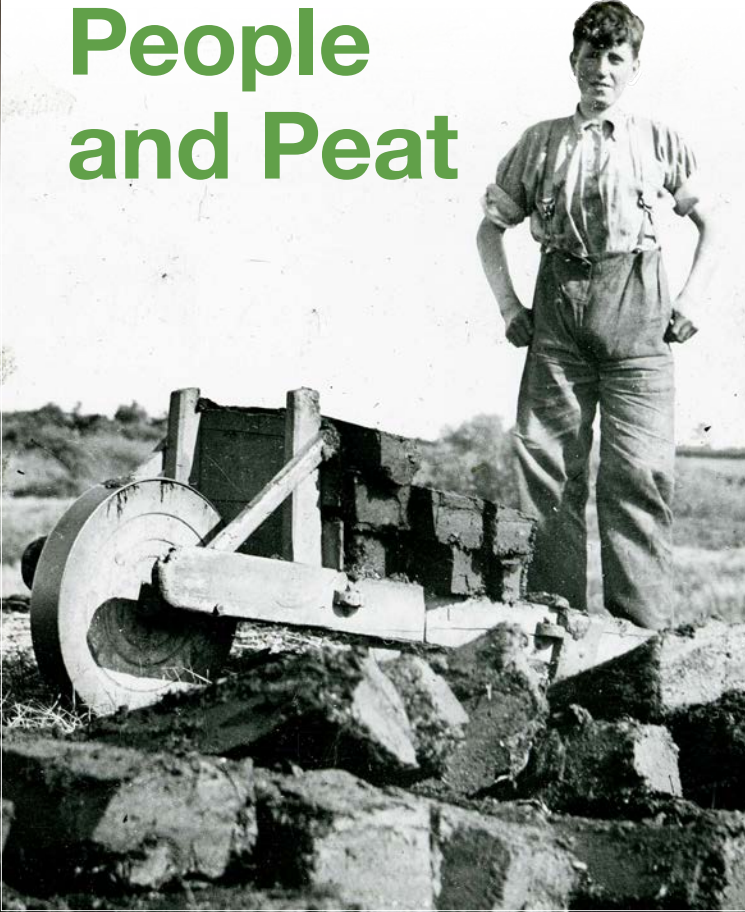
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TURF BOG, BALLYMENA, SIAI, W.C.L.



The Story of the Antrim Hills: People and Peat



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Ballymoney
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028 2075 2100
info@ccght.org

Cover Image
Courtesy of Coleraine Museum



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What is peat?

Peat is a waterlogged soil that is made up of compressed, partially decayed vegetable matter.

The future of peat

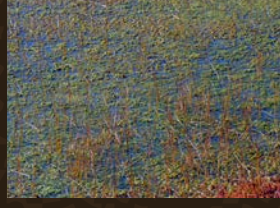
Blanket bogs are now recognised as one of the most important habitats in Ireland. They are important agricultural resources, provide drinking water and are home to rare flora and fauna. Bogs also act as a vital carbon store, trapping and storing atmospheric carbon.

Why do we need peat land?

Carbon — Bog plants capture carbon dioxide. When they die the carbon is stored in the peat that is formed. When bogs lose their surface layer, the carbon store may be lost. This carbon storage is a factor in our climate regulation.

Flood control — Bog mosses store water and release it slowly into streams and rivers.

Grazing — Blanket bogs are needed for grazing. Upland farming is an important part of our rural economy.



Water logging is essential for the formation of peat
JRJfin / Shutterstock.com

Biodiversity — Bog land is a unique ecosystem that supports diverse flora and fauna.

Water quality — A substantial portion of high quality drinking water filters through peat. Erosion and drainage of peat lands has resulted in lower water quality.

A3pfamily / Shutterstock.com

Guiding principles for the way forward

- Reduced amount and least damaging method of peat extraction
- Appropriate sheep grazing levels
- No new drains on any blanket bog
- Block drains where possible
- No clearing vegetation from existing drains
- No planting of trees on deep peat
- Protect upland vegetation from invasive species
- No fires
- Raise awareness
- Advise land managers of blanket bog management techniques
- Work with and support the farming community



Peat Dams on the Garron Plateau
Image provided by NI Water



Dungonnell drain blocking increases water logging
Image provided by NI Water

One of the many drainage channels
Image provided by NI Water

A shining example

The Garron Plateau was prioritised to ensure one of our best sites was restored and sustainably managed. The project addresses large scale loss of biodiversity. The same approach can be used in other blanket bog areas across the world.

As part of the Sustainable Catchment Area Management Programme (SCAMP), work is being carried out by NI Water and RSPB to restore the quality of this bog. This will improve the quality of the drinking water and reduce drinking water treatment costs.

The Dungonnell Reservoir receives water from the blanket bog within the Garron Plateau
Image provided by NI Water

The landscape supplies drinking water to around 14,000 homes
Image provided by NI Water

