

# FENOR BOG - A climate change champion



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Welcome to Fenor Bog which is part of the Copper Coast UNESCO Global Geopark.

Fenor Bog has been preserved and developed by Moin Fhionnurach Development Association and the Irish Peatland Conservation Council since 1995.

## **What is a Bog?**

A bog is a freshwater wetland where peat has accumulated. Peat is a dark and carbon rich substance made up of dead plant material that has been able to accumulate in low oxygen (anoxic) conditions over a long period of time.

Bogs like the one in Fenor can take thousands of years to develop.

Bogs are found across the world but are most common in countries which have cold wet climates such as Ireland.

## **Ireland's Bogs**

Due to its wet climate and pockmarked post glacial landscape, Ireland is one of the few remaining countries in the world with a relatively extensive array of peatland bogs.

Nearly 1/6th of the entire landmass of Ireland is covered in peatland. However not all of this peatland is still viable.

Much of Ireland's peatland areas have been over exploited for use as fuel sources and their bogs are not able to regenerate.

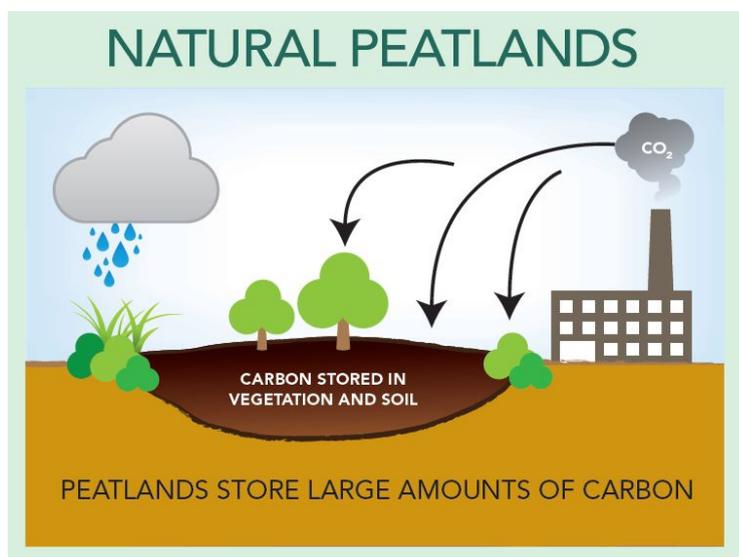
## Bogs and Climate change

Peatlands such as Fenor Bog, are vital for keeping our plants climate stable. They do this by trapping carbon dioxide within themselves and acting as long-term carbon sinks.

In order for them to do this job effectively, they need to have a high water table and not dry out. When left to their natural state like Fenor Bog is, they are the most important carbon storage device on the planet's surface.

Fenor Bog holds generations of carbon dioxide emissions. As it stands today, Fenor Bog does an important job in keeping carbon dioxide emissions lower than they might otherwise be.

This is one of the many reasons why protecting Ireland's peatlands from destruction is extremely important in the fight against climate change.



## **How are bogs formed**

Bogs, like the one at Fenor are the result of an interaction between an area's geology and biology. Every bog started out life as a lake.

In the case of Fenor Bog the lake itself was created when a depression in the landscape, left over from a melting glacier after the last ice age, was gradually filled with groundwater flowing through fractures in the local bedrock.

Over time, trees and plants such as sphagnum moss grew around the edges of the lake. As they died, the resulting plant material fell into the lake itself. Gradually the lake became filled with this dead plant material until only a thin layer of water remained between the material and the surface.

This layer of water kept the plant material in a low oxygen state and allowed it to turn into peat. To get to the stage that Fenor Bog is at now has taken a very long time.

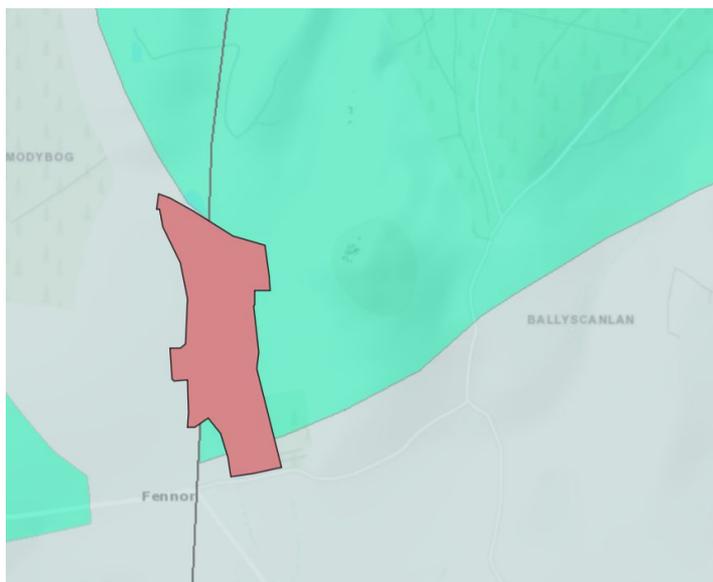
In many bogs, the water has been drained to allow people to cut turf for use as fuel. This process effectively kills the bog itself and destroys its biodiversity and potential for regeneration.

Thankfully in fenor bog this is not the case and the bog is still very much alive.

## **Fenor Bog is technically not a bog**

Fenor Bog is a naturally regenerating fen habitat, extremely rare nationally and internationally and is supported by plentiful, unpolluted groundwater.

A Fen is different to a bog because it receives water and is slightly acidic in nature. This is because the water flows through minute cracks in the local bedrock which imparts its acidic nature to the ground water as it flows through it.



***Geological Map showing Fenor bog (Red) and two rock types; Ordovician volcanic rocks (Green) and Ordovician sedimentary rocks (Grey)***

Fenor bog has a rich biodiversity with over 225 plants and animals having been found within it.

It is particularly well known for the many species of dragonflies that can be found here.

## Visiting Fenor Bog

Fenor bog is free to all to visit whenever you want to. It's great to visit at any time of the year but is particularly beautiful in late spring and summer.

Before you visit Fenor bog just remember the following rules!

- Dumping of rubbish and personal items is prohibited as they damage the bog and spoil the environment.
- Walking pets, camping, fires and the use of motorised vehicles on the bog are prohibited.
- It is an offense to feed or annoy wildlife or remove or otherwise disturb any natural feature or plant on the bog.
- It is dangerous to walk on the bog surface owing to hidden ditches, soft ground, the abundance of water, tree stumps and brambles. Please use the boardwalk provided

## A Few Fun Questions

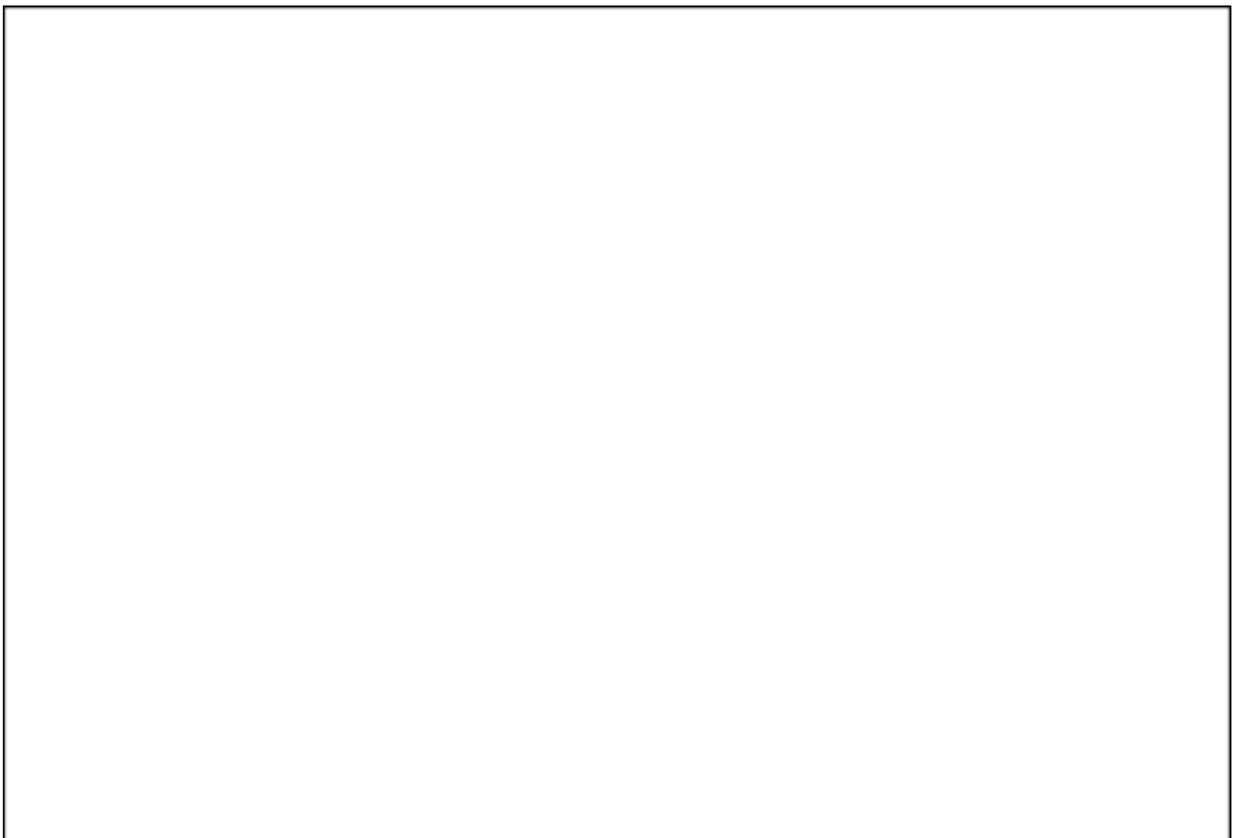
To help you better understand Fenor Bog or as a fun learning activity to do with others here are a series of questions that you can use as a guide to the bog.

The answers to these questions can be found on the information boards around the bog or just by looking at the bog itself.

You don't have to answer all the questions but the more you study, **the more you will learn.**

The Bog has been recognised as an internationally important area and we are going to discover why today.

A. Here is a space to draw a sketch of the wildlife pond and add in some of the main features e.g. trees, reeds and aquatic plants.



## What Lives in the pond?

Can you name three aquatic insects that are found in the pond?

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What does Amphibian mean?

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How many different Amphibians can be found in Fenor Bog?

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## Fenor Bog Facts

Bogs are a very important part of the Irish landscape. Many have been drained for farming, forestry, housing and sport grounds including Fenor Bog for the GAA pitch in the 1980's

1. How large is Fenor Bog today in acres?

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2. Can you say what kind of bog it is and why?

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3. Can you name the organisation in charge of the bog development and conservation in Ireland?

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4. Can you name the time period (age) when the landscape the bog sits in was shaped?

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5. Can you name the fuel that was cut off Fenor Bog?

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## Plant Life

Fen Bogs throughout the country are well known for their rare and unique plant life and Fenor Bog is no different. 118 plant species have been recorded in Fenor Bog,

Use the signs to help you find the answers to the question below.

1. Can you name the moss that played a major part in the bogs growth?

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2. Name three of the nine types of vegetation present in the bog?

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3. Name the most widespread vegetation type in the bog?

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4. Name two rare plants that are found only in the bog?

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5. I'm a plant that likes to eat insects can you name me?

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Here is a space to draw the different stages of bog formation. The signs will give you a hint.



## Fenor Bog, Rocks and Animals Quiz

Many different types of animals have been identified over the last 20 years within Fenor Bog while the rocks around it are what contributes to its special biodiversity. Use the clues in the question below to identify some of the animals and the rocks around here.

1. Some people say I'm sly and cunning. You'd rarely see me in day light. What am I?

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2. I live up in the pine trees. I sleep through the cold days of winter but if it warms up I can snack on nuts I've hidden in the ground. Who am I?

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3. I am a type of rock that surrounds Fenor bog, I came from a volcano, What kind of rock am I?

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4. I'm very lazy in the morning but once the sun has heated me up I'm faster than the eye can see when on the hunt for beetles and bugs. What am I?

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5. I'm small, fast and very fit. I need to be as my prey is three times my size. I'll give you a clue. I've a black tip on the end of my tail. Who am I?

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## Answers to Questions

Who lives in the pond

1. Raft Spider, Dragonfly and Water Beetle.
2. An animal that can live on both land and water.
3. Two, Frog and Newts

Fenor Bog Facts

1. 32 acres
2. Fen Habitat
3. Irish Peatland Conservation Council
4. The Ice Age - ended 13'000 years ago
5. Turf

Answers to Plant life in Fenor Bog

1. Sphagnum Moss
2. Reeds, Sedges and Flowering Plants
3. Sedges
4. Sundew and Orchids
5. Sundew

Answer to Fenor Bog Rocks and Animals

1. Fox
2. Red Squirrel
3. Volcanic Rocks/Igneous Rocks
4. Common Lizard
5. Stoat