

Limerick City and County Council World Wetlands Day 2024

Importance of local wetlands on human wellbeing

# Importance and ecology of wetlands

presented by Nuala Madigan, Irish Peatland Conservation Council



Comhairle Cathrach  
& Contae **Luimnigh**

**Limerick** City  
& County Council



# What is a wetland?

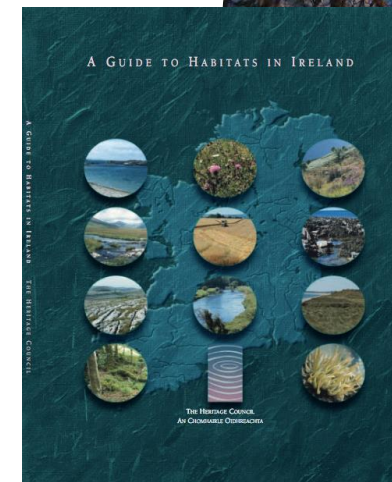
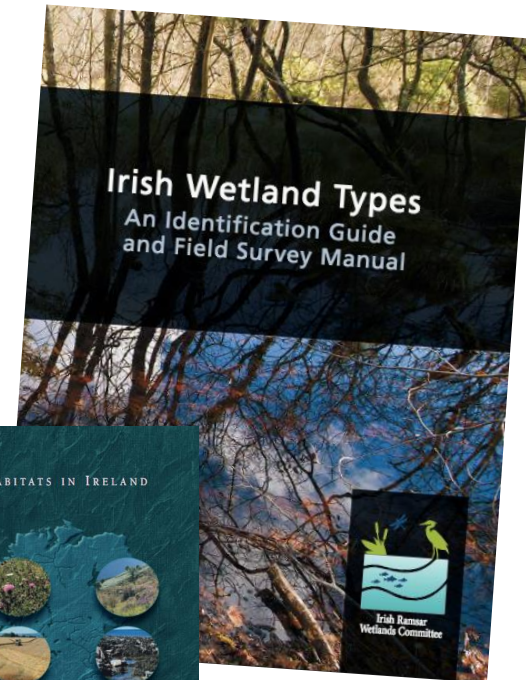
Wetlands are areas where water is the primary factor controlling the environment and the associated plant and animal life.

They occur where the water table is at or near the surface of the land, or where the land is covered by water. Originally covered 1/5 of the island of Ireland.

Five major wetland types are generally recognised:

- marine (coastal wetlands including coastal lagoons, rocky shores, and coral reefs);
- estuarine (including deltas, tidal marshes, and mangrove swamps);
- lacustrine (wetlands associated with lakes);
- riverine (wetlands along rivers and streams); &
- palustrine (meaning “marshy” – marshes, swamps and bogs)

Two publications that are important include **A Guide to the Habitats of Ireland** by J.A. Fossitt which is the standard used in Ireland to classify habitats. The Irish Ramsar Committee have also produced an 'Identification Guide and Field Survey Manual' specific to wetlands.

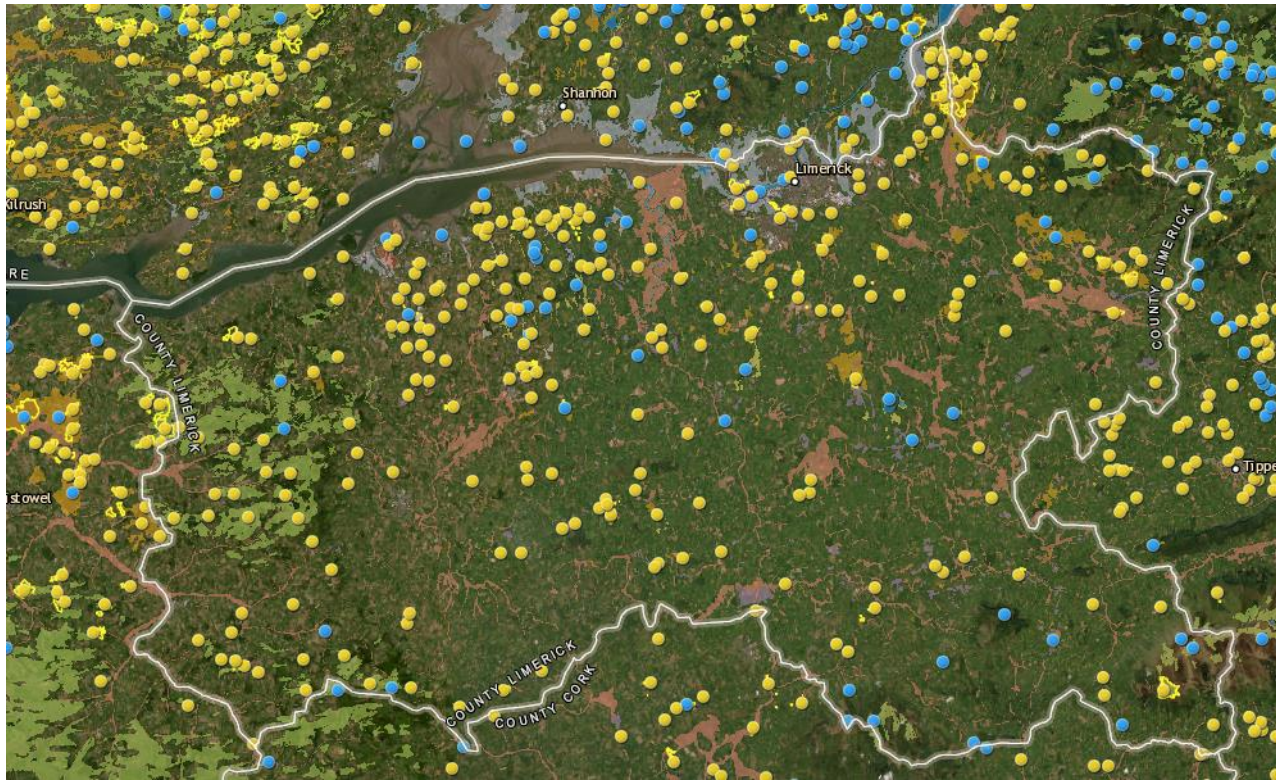




## Wetlands of County Limerick...

According to Wetland Survey Ireland there are 264 known wetlands in County Limerick but it is also noted that this inventory is incomplete. View the wetlands of County Limerick by visiting

<http://www.wetlandsurveysireland.com/wetlands/map-of-irish-wetlands--/map-of-irish-wetlands---map/>



Wetlands of Co. Limerick include raised, upland and lowland blanket bog, fen, swamp, wet woodland, salt marsh, lakes, rivers and coastal saltmarsh.

## Wetland habitats of Co. Limerick....

**Swamps** are stands of emergent herbaceous vegetation that generally occupy a zone at the transition from open water to terrestrial habitats. Water levels may fluctuate but swamps typically remain wet with the water table above ground level for most of the year. They can be associated with freshwater or brackish systems, and the water may be stagnant, slow-moving or tidal.

**Marsh** is found on level ground near river banks, lakeshores, and in other places where mineral or shallow peaty soils are waterlogged, and where the water table is close to ground level for most of the year. Unlike swamps, standing water is not a characteristic feature except, perhaps, during very wet periods or in winter months. Marsh is comparatively species-rich. **Saltmarsh** an area of coastal grassland that is regularly flooded by seawater.

**Peatlands** are subdivided into two main types, bogs and fens. Bogs are ombrotrophic (rain-fed) peatlands where almost all inputs of water to the system are derived from precipitation and where acid, oligotrophic (poor in nutrients) peat deposits accumulate. Fens are minerotrophic peatlands that, in addition to precipitation, are fed by groundwater or moving surface waters.



Ireland has one type of frog, the common frog, which requires freshwater habitat to complete its lifecycle. The sundew is an insect eating plant of peatlands.

## Importance of wetlands....

Ecosystem services are the benefits we get from nature.

They can be divided into

1. Provisioning: food, fuel, freshwater, medicines etc.
2. Regulating: air quality, climate, erosion, water etc.
3. Supporting: nutrient cycling, soil formation, water cycling, photosynthesis
1. Cultural: values, recreation, ecotourism

Wetlands provide:

- Wetlands support **biodiversity**; 40% of all species live or breed in wetlands
- Wetlands store 30% of land – based carbon; vital for **climate change mitigation**
- Wetlands **remove pollutants** from circulation.
- Wetlands provide **protection from flooding and storms**
- Wetlands **absorb and store water**
- Wetlands provide **employment, food and energy.**
- Wetlands are places for **recreation, culture and leisure.**

According to Teagasc the biodiversity of wetlands in Ireland has been estimated to be worth €385 million per year to the Irish economy.

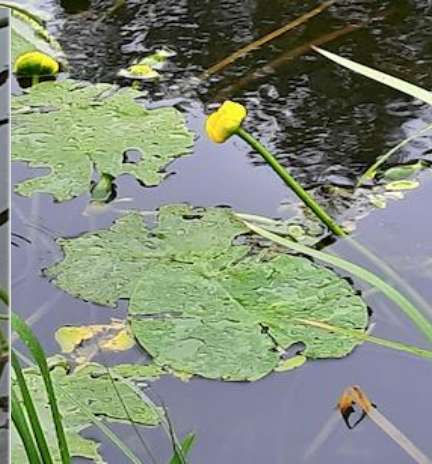




## 40% of all species live or breed in wetlands....

To achieve this they must adapt: FLORA

- Many wetland plants have soft tissue which allows air to be brought to the roots (aerenchyma)
- Many hibernate to protect from freezing in winter
- Sundews are insect eating
- *Sphagnum* mosses store water which also enables an ion exchange to help them grow
- Floating leaves to help photosynthesis, emergent leaves to get more access to light.
- Multiply ways to reproduce 1) male and female flowers are on the same stalk and seeds are blown by wind or 2) spread by root stalk like a lawn.





## FAUNA

- Webbed feet or long hairs on their legs to help them swim
- Long legs and beaks to help them wade and feed
- Colours blend in with flora to help protect against predation
- Use water to complete their lifecycle e.g. Amphibians, dragonflies, damselflies, mayflies ...
- Birds have preen glands close to their tail where they collect oil and rub it on their feathers to keep them waterproof







## How is Ireland protecting wetlands?

**Irish Wildlife Act 1976 & Wildlife (Amendment) Act 2000** is the principal national legislation for the protection of wildlife species and habitats in Ireland

**European Union Habitats Directive** contributes to ensuring biodiversity in the European Union by conserving natural habitats and wild fauna and flora species.

**EU Birds Directive (2009/147/EC)** to designate Special Protection Areas (SPAs) for the protection of: Listed rare and vulnerable species. Regularly occurring migratory species. Wetlands especially those of international importance.

&

Ireland is one of 160 Contracting Parties to the Convention on Wetlands which first convened in Ramsar, Iran in 1971, and since called the **Ramsar Convention**. This intergovernmental treaty embodies the commitments of its member countries to maintain the ecological character of their Wetlands of International Importance and to plan for the “wise use”, or sustainable use, of all of the wetlands in their territories.”

Learn more visit [www.npws.ie](http://www.npws.ie) and <https://www.irishwetlands.ie/>





## Knowing the importance of wetlands what is the status of Ireland's wetlands?

Wetlands are **in decline in Ireland with bogs particularly vulnerable**. Analysis of the Corine time series (1990 to 2018) shows that wetland areas have decreased by 20% and now only represent 14.9% of lands in Ireland (EPA)

Tall-herb swamp – **BAD**

Mediterranean salt meadows found in the upper zone of saltmarsh – **BAD**

Soft-water, nutrient-poor lake habitat- **BAD** and Ireland is a stronghold

Hard-water lake – **BAD**

Rich pondweed lake habitat– **INADEQUATE**

Vegetation of flowing waters– **INADEQUATE**

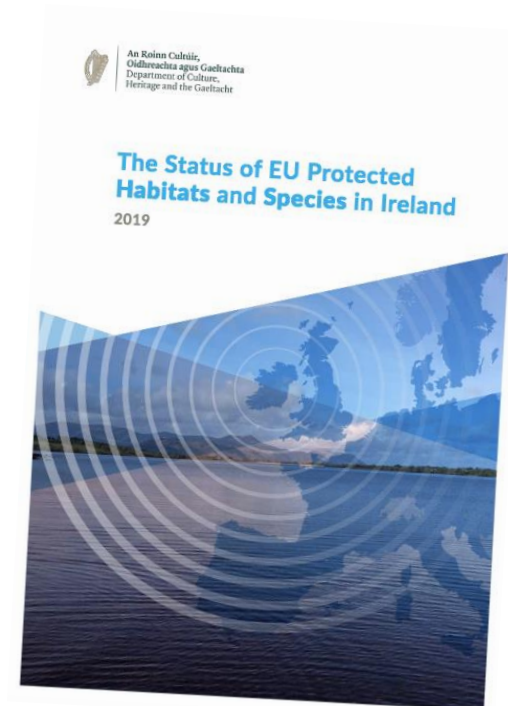
Active raised bog – **BAD**

Blanket bog – **BAD**

Transition Mire – **BAD**

Caldium Fens – **BAD**

Alkaline Fen - **BAD**



# **It's World Wetlands Day 2024 – I could not end on that slide!**

There is wonderful work going on nationwide for wetlands within state and local government, within NGO's and community groups

Get involved identify your local wetland and see what you can do – start by becoming a citizen scientist, make sure your local wetland is recorded in the wetlands of the county....





# Thank you



Website: [www.ipcc.ie](http://www.ipcc.ie)

E-mail: [bogs@ipcc.ie](mailto:bogs@ipcc.ie)

Phone: 045-860133

Keep up to date with the work of the Irish Peatland Conservation Council on social media

