

Ireland's Rivers:

Life in Ireland's Rivers



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Rivers And Their Wildlife

Ireland's rivers are home to an extraordinary variety of wildlife, from tiny freshwater insects to fish like wild Atlantic salmon, pike, brown trout and other aquatic species such as otters and kingfishers.

Healthy rivers provide clean, oxygen-rich water, natural riverbanks and connected habitats that allow wildlife to feed, breed and migrate.

Did you know?

Ireland's rivers support around 30 native freshwater fish species, alongside thousands of aquatic invertebrates and many mammals and birds.



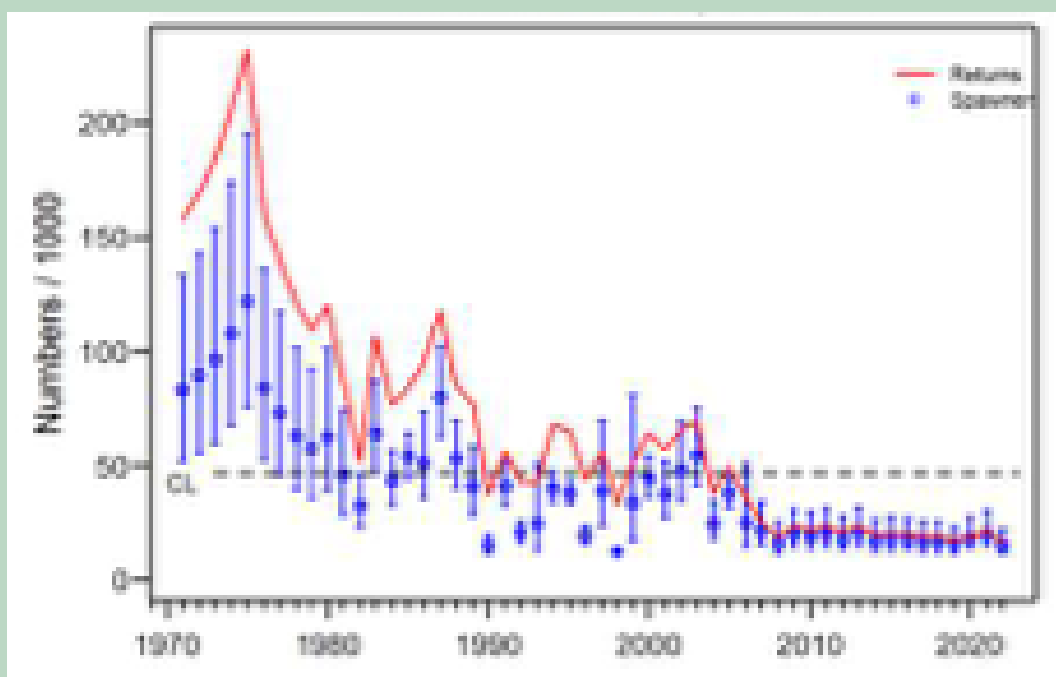
Sources: [National Biodiversity Data Centre](#) and [Inland Fisheries Ireland](#)

Ireland Losing Iconic Species: Atlantic Salmon

Atlantic salmon are born in Irish rivers before migrating thousands of kilometres to feed in the North Atlantic, often around Greenland. They then return to the very river where they were born to spawn.

Wild salmon numbers returning to Irish rivers have collapsed by around 90% since the 1970s. Inland Fisheries Ireland estimates annual returns fell from 1.76 million fish in 1975 to around 171,700 in 2022.

Salmon are threatened by pollution (particularly from livestock agriculture, industry and deficient sewage treatment), barriers to migration, habitat loss, sea lice and climate change. Together, these pressures make it increasingly difficult for salmon to complete their remarkable journey from Irish rivers to the North Atlantic and back again.



Sources: [Irish Times](#) and [Inland Fisheries Ireland](#)

Wild Salmon Population Major Decrease 1970-2020.

What Atlantic Salmon Need to Recover

Wild salmon can recover, but only if they have healthy rivers and safe migration routes throughout their life cycle.

- **Free-flowing rivers:** Remove obsolete dams and weirs so salmon can reach their spawning grounds.
- **Clean, cold, oxygen-rich water:** Tackle pollution with proper enforcement and substantial fines to protect water quality so salmon can survive and reproduce.
- **Lower sea lice pressure:** Support measures that reduce interactions between wild salmon and sea lice, including improving salmon farming practices. Support move from open-net salmon farming.
- **Healthy spawning gravels:** Protect rivers from excess sediment and restore natural river habitats where eggs can develop safely.
- **Protected river habitats:** Restore native riverbank vegetation, reconnect floodplains and protect Ireland's remaining High Status rivers.

Did you know?

Atlantic salmon can travel thousands of kilometres across the North Atlantic before returning to the very river where they were born to spawn.



Ireland losing Iconic Species: Freshwater Pearl Mussel

The freshwater pearl mussel is one of Ireland's rarest and longest-lived animals, with some individuals living for more than 100 years. During their early life, their larvae must attach to young Atlantic salmon or brown trout before settling into clean river gravels.

Ireland's rivers have around half of the EU's remaining freshwater pearl mussel populations.

Today, many populations consist of ageing mussels with little or no successful reproduction. Fine sediment, nutrient pollution and declining salmon numbers are preventing young mussels from surviving.

How can we help?

- Protect High Status rivers and clean gravels.
- Reduce sediment and nutrient pollution.
- Restore healthy salmon & trout populations.
- Support river restoration projects.

Did you know?

Only one of Ireland's 96 freshwater pearl mussel populations is considered to be in favourable conservation condition.



Sources: [NPWS](#) & [TII Publications](#)

Ireland losing Iconic Species : White-clawed Crayfish

The white-clawed crayfish is Ireland's only native freshwater crayfish and is an important part of river ecosystems.

Ireland is one of the last strongholds for the species in Europe, where it has declined sharply because of crayfish plague, habitat loss and declining water quality. Although Ireland has remained free from crayfish plague, the species is highly vulnerable if the disease is introduced.

Protecting clean rivers and preventing the spread of invasive crayfish are essential for its survival. Crayfish feed on plants and decaying organic matter, helping recycle nutrients and keep rivers healthy.

How can we help?

- Protect clean, unpolluted rivers and streams.
- Prevent the spread of invasive crayfish and crayfish plague.
- Restore natural river habitats.
- Support monitoring and conservation projects.

Did you know? The white-clawed crayfish is protected under both Irish and European law and is listed as Endangered on the IUCN European Red List.



Sources: [National Biodiversity Data Centre](#) and [IUCN Red List](#)

Ireland: One of the Last Strongholds for the Eurasian Otter

The Eurasian otter is one of Ireland's most recognisable mammals and is found throughout the country. As a top predator, it sits at the top of the river food web and is a strong indicator of a healthy freshwater ecosystem.

Otters need clean water, abundant fish and undisturbed riverbanks to survive. They feed mainly on fish, but also eat frogs, crayfish and other aquatic animals.

How can we help?

- Protect and restore riverbank habitats.
- Reform the 1945 Arterial Drainage Act that allows for largescale dredging, canalisation and spraying of rivers.
- Improve water quality.
- Create wildlife corridors along rivers.
- Support river restoration projects.

Did you know?

Ireland is one of the last European strongholds for the Eurasian otter, with the species found in every county.



Sources: [NPWS](#) & [Vincent Wildlife Trust](#)

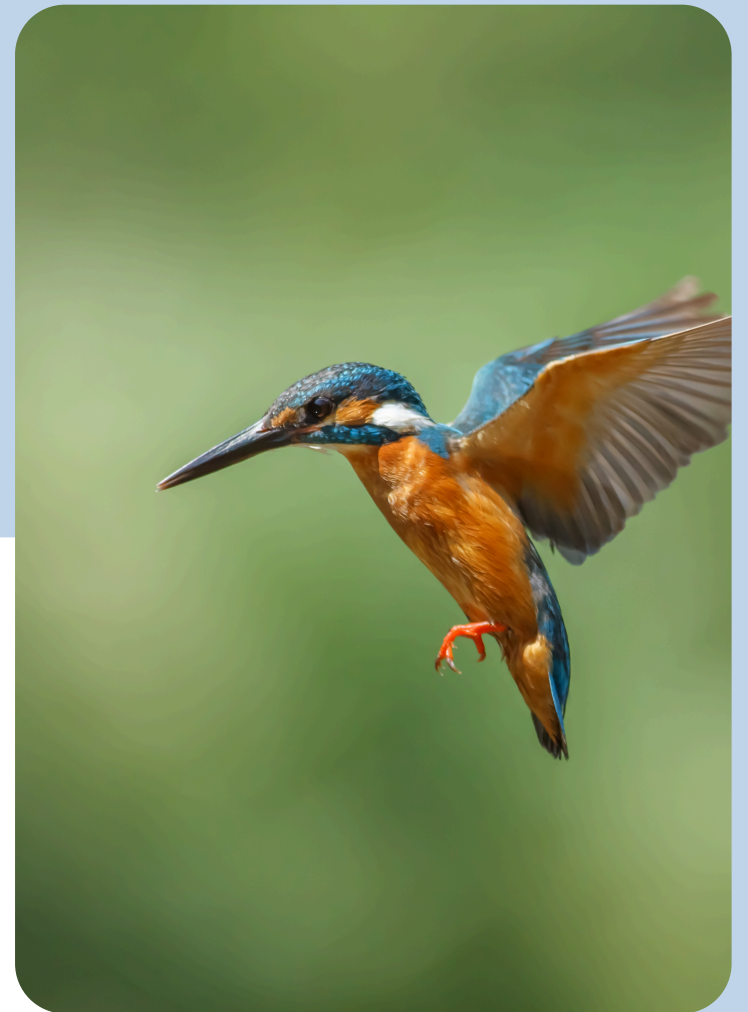
Life Above the Water

Healthy rivers provide food, shelter and breeding habitat for a wide range of wildlife beyond the water's edge.

- Kingfishers nest in riverbanks and feed almost entirely on small fish.
- Mayflies, stoneflies and caddisflies are highly sensitive to pollution and are often described as the "canaries in the coal mine" for river health.
- Dippers and grey wagtails depend on these aquatic insects to feed their chicks.
- Bats hunt insects emerging from rivers on summer evenings.
- Dragonflies spend most of their lives underwater before emerging as adults.

Did you know?

A kingfisher can eat up to 60 small fish each day, making clean, healthy rivers essential for its survival.



Healthy Rivers Are Vital For People Too

Ireland's rivers are essential to our health, economy and quality of life.

Over 80% of Ireland's public water supply comes from surface waters (lakes and rivers).

- Drinking water: Most of Ireland's drinking water comes from rivers, lakes and groundwater.
- Food and farming: Healthy rivers provide water for agriculture and support food production.
- Recreation: Swimming, angling, kayaking and walking all depend on clean, healthy rivers.
- Climate resilience: Healthy rivers and floodplains help reduce flood risk and make landscapes more resilient to climate change.
- Health and wellbeing: Access to clean rivers and blue spaces benefits both physical and mental health.

Sources: [The Water Forum](#)



When Rivers become Polluted

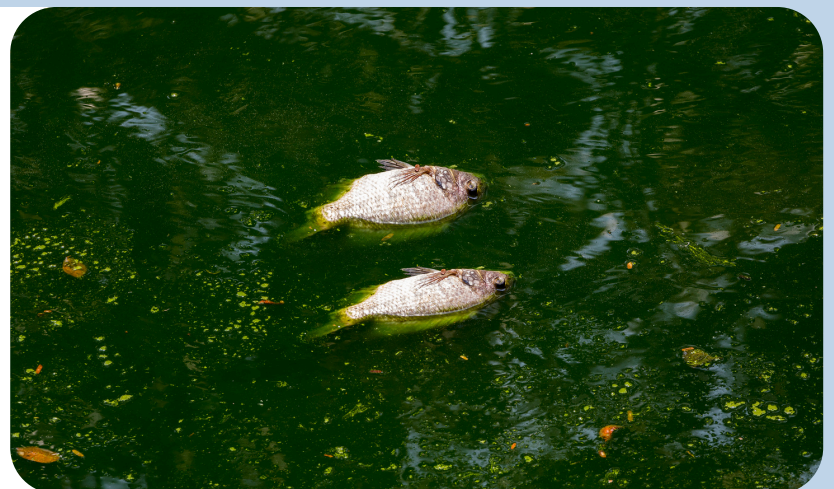
"In the 1980s, about 500 Irish rivers were classed as the very best of the best. Today, there are about 20 – that's a 96% collapse in a single working life." – Ella McSweeney, The Irish Times

In August 2025, Ireland had its largest recorded fish kill, when more than 42,000 fish died along a 37 km stretch of the River Blackwater in County Cork. Despite investigations, no definitive source was identified. This year another incident occurred on the river Glyde 'with more than 20,000 fish killed and a river ecosystem devastated. The source has been identified as an agricultural discharge'. (Source: Irish Wildlife trust)

The latest EPA report found:

- Only 54% of monitored rivers and surface waters meet their legal standards, meaning 46% are failing.
- Nitrate concentrations are increasing in many rivers and waterways
- Ireland is not on track to meet its EU Water Framework Directive targets by 2027.

‘Why It Matters: Polluted rivers impact fish, reduce biodiversity, damage ecosystems and can negatively affect the quality of the water we drink.



Sources: [Inland Fisheries Ireland](#), [RTE](#), [Irish Times](#), [IWT](#) and [EPA](#)

Accountability for Cleaner Rivers

Forty-five pollution incidents were reported to the EPA during 2023, compared to 34 the previous year — many linked to agriculture and wastewater.

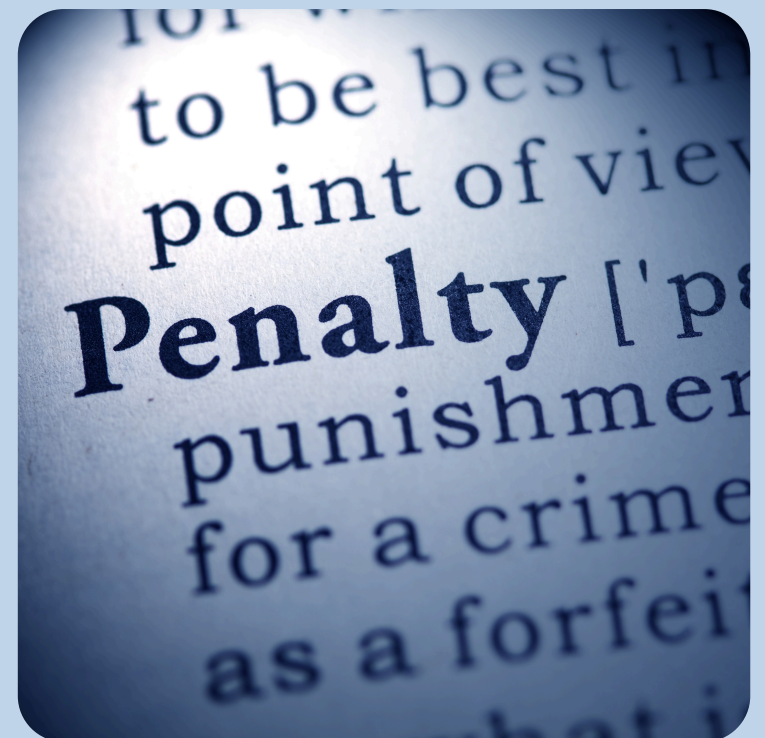
Stronger Enforcement and Meaningful Penalties

Real change requires enforcement. Pollution incidents must be investigated quickly, offenders held accountable with penalties that genuinely deter future pollution. Repeat polluters should lose their discharge licences. The EPA — which regulates about 900 industrial sites in Ireland — has never suspended a licence ([Irish Times](#)).

Fines for polluters are too low. Penalties must reflect the true environmental cost of pollution rather than the minimal fines currently issued.

Barry Fox, Head of Operations at Inland Fisheries Ireland, stated that fines imposed on polluters — often only a few thousand euros — are far too low. ***“The penalty doesn’t fit the crime,” he said. “They significantly undermine enforcement efforts”*** ([Irish Times](#)). Inland Fisheries Ireland has also highlighted how outdated legislation and weak powers hinder their ability to investigate pollution events.

Sources: [Irish Examiner](#), [Irish Times](#) and [EPA](#)



Action Needed to Restore River Habitats

Restoring Ireland's rivers requires coordinated action from government, communities, industry and farmers. Experts agree that several measures are particularly important.

- **Restore free-flowing rivers:** Remove obsolete weirs, dams and other barriers that prevent Atlantic salmon, trout, eel and lamprey from reaching their spawning grounds. Barrier removal is one of the fastest and most effective ways to restore river ecosystems.
- **Improve water quality:** Reduce nutrient pollution from farming and industry, upgrade wastewater treatment, restore riverbanks and improve protection for spawning rivers and estuaries.
- **Protect spawning habitats:** Restore gravel beds, riverbanks and natural vegetation so fish and other freshwater species can breed and thrive.
- **Strengthen enforcement:** Ensure pollution incidents are investigated promptly and strong penalties act as an effective deterrent. Strong enforcement is essential if water quality is to improve.



Communities and Individual Action

Healthy rivers depend on governments, communities, farmers, businesses and individuals. Here are some ways to make a difference:

- Join groups taking action and advocating for rivers - like SWAN or Rivers Trusts Ireland
- Make water quality an election issue. Vote for politicians who are working to protect rivers and nature
- Eat more plant-based foods (rather than dairy or beef products). These have higher climate and water quality impacts.
- Support nature-friendly food: supporting organic farmers and those using nature-friendly practices can help reduce pressure on rivers.
- Protect water at home: Avoid pouring oils, paints, medicines and harsh chemicals down household drains, and avoid pesticide and herbicide use.
- Get involved locally: Learn about your local river, join clean-ups, record wildlife or take part in citizen science through organisations such as LAWPRO and local river groups.
- Support restoration projects: Many organisations are restoring rivers, wetlands and native oyster reefs, helping improve water quality and biodiversity.

Other resources:

- Cuan Beo (Galway Bay)
- Green Ocean Foundation
- Save Our Salmon campaign (SWAN).

