Other Nations 2

Biodiversity along the Boyne Greenway, Drogheda

Commissioned by Drogheda Tidy Towns

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An tSeirbhís Páirceanna Náisiúnta agus Fiadhúlra
National Parks and Wildlife Service

Marshland, Drogheda town, January 2025

'For the animal shall not be measured by man. In a world older and more complete than ours they move finished and complete, gifted with extensions of the senses we have lost or never attained, living by voices we shall never hear. They are not brethren, they are not underlings; they are other nations, caught with ourselves in the net of life and time, fellow prisoners of the splendour and travail of the earth'.

Henry Beston Sheahan (American naturalist 1888–1968)

Introduction

This book was produced with the assistance of Drogheda Tidy Towns. The aim of this study is to explore and record the biodiversity along both sides of the river Boyne; The Boyne Greenway (The Ramparts) on the south side, and the Mell/Tubberboice/Tullyallen area to the north, for a distance of 2.5km from the Mary McAleese bridge west of Drogheda to the Bridge Of Peace near the town centre. The study concentrates on three different habitats: tidal river, woodlands and marshlands. The time frame of this study was from January to August 2025.

What follows is not a definitive record of the biodiversity of the area, nor is it a scientific document. This book is simply an attempt to give the reader a good overview of the wonderful tapestry of life that exists within the different habitats along this stretch of the Boyne. But mostly, I hope it will create an awareness and appreciation of the beauty and complexity of nature that surrounds us and encourage you, the reader, to simply pause and ponder at what we have and what we stand to lose.

The River Boyne

The River Boyne rises in Carbury Bog, County Kildare and flows northeast for 70 miles (112km) through County Meath. It enters the Irish Sea between Mornington, County Meath and Baltray, County Louth. It has done so for over 10,000 years.

The Boyne has a rich historical, archaeological and mythical heritage. The Battle of the Boyne, a major battle in European history, took place along the river near Drogheda in 1690 (it didn't go well), and the legends of Boann and the Salmon of Knowledge are the strongest associations most people have with this stretch of the river. But it is our Natural Heritage, and the rivers' role within in it, that we will celebrate in this study.

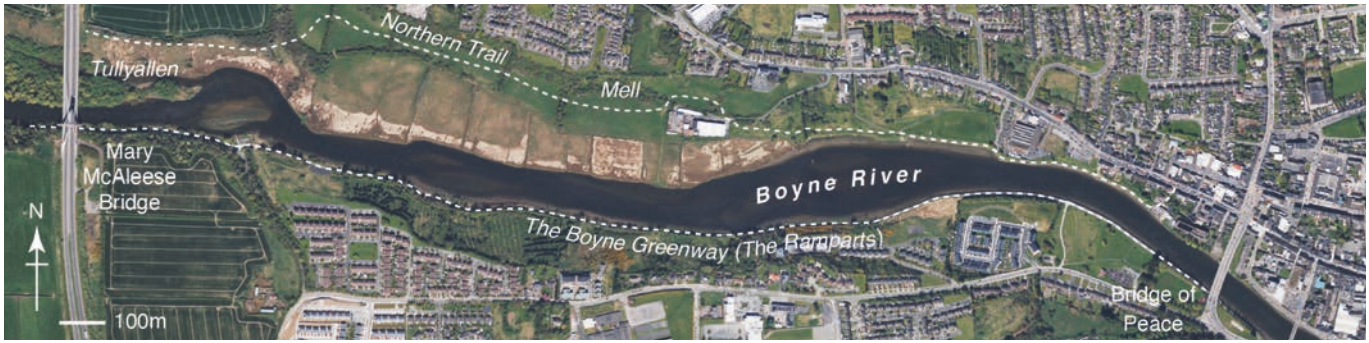
The river is part a huge and complex ecosystem. The importance of this system is recognised at a European level by its designation as a **Special Area of Conservation** (SAC) under the Habitats Directive and as a **Special Protection Area** (SPA) under the Birds Directive. Our section of the catchment supports four of the five strictly protected species and habitats: Otters, Atlantic salmon, Lamprey, and Alluvial woodlands.

Alluvial woodland and reed beds, The Ramparts, Drogheda, January 2025

The Boyne today is a marvellous asset to the Drogheda community. It provides us with a place to relax and enjoy nature as well as the opportunity to take part in activities centred around the river. But 9,000 years ago, when the first humans arrived in Ireland, it was the key to their very existence. At that time, we were hunter/gatherers whose actions scarcely disturbed the landscape. All this changed around 6,000 years ago, when the Mesolithic lifestyle was replaced by farming and the domestication of animals.

It is a sad irony that farming, arguably one of civilisations greatest developments, is now one of the main players in the destruction of our lakes and rivers. A recent Environmental Protection Agency survey (2016–21) found that this essential resource is under threat from human activities that cause water pollution and habitat degradation. Nearly half of Ireland's surface waters are in an unsatisfactory condition due to the damage being caused by activities that release pollutants into our environment and physically damage habitats and ecosystems. The trends indicate that, overall, water quality is getting worse.

The Boyne catchment area, needless to say, is under significant pressure. The main causes of pollution are run-off of nutrients, sediment and pesticides from agricultural lands and farmyards. Other harmful activities include: land drainage, navigational dredging, and the construction of dams, weirs and culverts in water courses. It is incumbent on us now more than ever to halt this pollution and destruction and to protect our aquatic habitats. For further information on how you can help, see the **Boyne River Trust** website. What follows in this book is a celebration of all that survives.



On the river …

Very few Irish birds can match the beauty of a **Kingfisher**. Resident on the Boyne, they are very distinctive when seen sitting still with its brightly coloured plumage. The underparts are a striking orange-red, while the wings and back of the head are dark blue. Most people's view of these birds will be of a low flying, fast moving, sparkling blue gem. Kingfishers feed on small fish (Stickleback, Minnow) and larger aquatic insects caught by plunge-diving from a perch or while hovering. They breed in tunnels dug in vertical banks along streams and rivers. The banks on this stretch of the Boyne lack the height to offer possible nesting sites. But the reed beds on the north side of the river do provide perfect hunting perches. **Amber Conservation Status**

Irish Inland Fisheries

The Boyne has a good run of **Atlantic salmon** and Sea trout in summer and autumn, it also has a good stock of Brown trout. Native to Ireland, the Atlantic salmon is found in most Irish rivers. Their conservation status in Ireland is classified as Vulnerable due to a decline in abundance, caused by mortality at sea, habitat loss, barriers to migration, poor water quality, overfishing and sea lice. Angling clubs along the Boyne have long since operated a Catch and Release system to help protect the stocks. See the Inland Fisheries Website for further information.

Irish Inland Fisheries

The **River lamprey** is native to Ireland, and it is also found throughout Europe. They are a strange and fascinating fish, although if you were an angler you may disagree. Lampreys lack gill covers or paired fins and have an oral sucker disc instead of a mouth with jaws. River lamprey spawn in rivers in mid to late spring in nests called *redds*, which they excavate from the bed of gravelly or sandy rivers using their suckers to remove stones. After hatching, larval lamprey drift downstream until they find a suitable muddy or silty part of the riverbed to burrow into. Lamprey then spend several years in a blind, worm-like juvenile form known as *ammocoetes*, which filter-feed microscopic organisms from the water and mud. After about four years, river lamprey ammocoetes develop eyes and turn silvery, transforming into free-swimming adults as they make their way downstream and migrate to sea. Adult river lamprey are external parasites that attach to host fish with their oral disc to feed on their flesh and blood. They remain relatively close to the coast for about eighteen months before migrating back up into the river to spawn (Inland Fisheries Ireland data).

Otters are delightful mammals that have long been recorded along the Oldbridge-to-Drogheda-town stretch of the Boyne. Healthy otter populations can be expected along clean rivers and lakes, where fish and other prey are abundant, and where the adjacent habitat offers plenty of cover. The Boyne satisfies these requirements. Described as shy, elusive and mainly nocturnal, the Boyne otters seem to have missed that memo, as they can be regularly seen fishing in the centre of town during the day. Threats: Direct and indirect habitat destruction, including river drainage and the clearance of bank-side vegetation. Pollution, particularly organic pollution resulting in fish kills, and accidental deaths from road traffic and fish traps, also pose a threat.

River birds

Grey heron hunting on the River Boyne, March 2025

The river and surrounding habitats provide feeding, resting and nesting areas for a wide variety of birds both resident and migratory, such as Little egret, Cormorant, Turnstone, Oystercatcher, Green shank, Mallard, Kingfisher, Grey wagtail, Black backed gull, Red shank, Black headed gull and Herring gull. Twice a day at low tide the buffet is open.

River birds

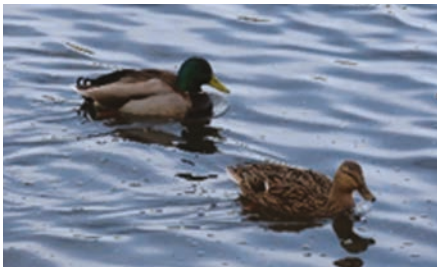
Little egret

Cormorant

Turnstone

Oystercatcher

Green shank



Mallard

Young moorhen

Grey wagtail

Black backed gull

Red shank

Black headed gull

Herring gull

Migrants

Resting Greenshank and Turnstones, The Ramparts, Drogheda, February 2025

Most people would be aware of our summer migrants. The best known of these are the Swallows and Swifts who fly all the way from Africa to nest here and enjoy the Irish summer. But people may not be as familiar with our winter visitors who come in great numbers to enjoy the mild Irish winters. The Boyne estuary is designated as a Special Area of Conservation (SAC) under the Habitats Directive and as a Special Protection Area (SPA) under the Birds Directive because of the haven it provides for migratory birds.

Brent geese, Turnstones, Golden plover, Green shanks, Red shanks, and even Robins are just some of the birds that come here from as far away as Greenland to avoid the harsh winter weather. Turnstones and Greenshanks (above) are familiar visitors to this stretch of the river and can be seen at low tide searching for food along the exposed mud and stones of the riverbed. The birds are building up their fat reserves for the long flight back to their summer breeding grounds.

The delicate, graceful Greenshank has come from Scotland and Scandinavia, a short skip and a jump compared to the journey made by small but robust Turnstones who have already made a 2,600km flight from Greenland mostly in the dark, and will repeat the return journey before the end of April. Migration is a harsh necessity for some birds as severe weather, hunting by humans and loss of feeding grounds takes its toll on millions each year. So, the next time you see a Greenshank or Turnstone on your walk along The Ramparts pause and think about the amazing navigational skills they possess, and dangers overcome by these little birds to get here … simply extraordinary.

Evidence is mounting to explain how birds use the Earth's magnetic field to help fly thousands of miles with unerring accuracy – a discovery that may help advance quantum technology. Studies suggest that the magnetic compass of migratory birds relies on quantum effects in short-lived molecular fragments known as radical pairs that are formed photochemically in the eyes. In this way, the birds can perceive Earth's magnetic field lines and use that information to navigate their long-haul trips (The Guardian).

As one researcher put it: "it would appear that nature discovered quantum mechanics some time ago, which makes sense because if it were the other way around it would mean that we are smarter than nature and that's not the case".

Woodlands

Section of alluvial woodland, Mary McAleese Bridge, March 2025.

Alluvial Woodland

'*Alluvial woodland*' is defined as '*woodland that is subject to periodic flooding by a stream, river or lake, even at irregular and infrequent intervals but for long enough periods to determine the vegetation*'.

One of the rarest type of native Irish woodland, alluvial woodlands are rich in biodiversity. What we have on this section of the Boyne is a chain of two islands situated 2.5km west of Drogheda (Yellow Island and Grove Island) starting at the end of The Ramparts and ending at the gates of Oldbridge House.

The islands were formed over a long period by the build-up of alluvial sediment in this part of the river where water movement is sluggish. This allowed water loving plants to get a foothold, opening the way for larger plants and trees to colonise over time. Although the wet woodland areas appear small, there are few similar examples of this type of alluvial wet woodland remaining in the country, particularly in the north-east. It is wonderful to have these habitats on our doorstep.

Royal Horticultural Society

Purple willow

Woodland Trust

White willow

Meadowsweet

Yellow iris

Both islands are covered by dense thickets of mainly four types of Willow: Crack willow, White willow, Purple willow and Rusty willow. An area of Alder is found further along the canal. The ground flora is typical of wet woodland, with Meadowsweet, Yellow iris, Horsetails and tussocks of Greater tussock-sedge present. Mosses, Fungi and Lichens are also abundant.

The dark, damp woodland with lots of decaying matter creates perfect conditions for fungi and moss to grow and thrive. Fungi are a fascinating ancient form of life, neither animal or vegetable, existing long before the first amphibians, reptiles or mammals roamed the planet. It is estimated that there are well over one million species of fungi worldwide but only around 150,000 have been described to date. Some fungi can be poisonous and destroy trees, like the fungus that causes Ash dieback. Ash dieback was first detected in the Republic of Ireland in October 2012 on plants imported from continental Europe. The disease is now prevalent throughout most of the island of Ireland and is likely to cause the death of the majority of the ash trees over the next two decades. Others, of course,

Scarlet elf cup

Glistening ink cap

Trametes pubescenes

can be very healthy to eat or can help plants absorb nutrients. Fungi are important parts of many processes. The Scarlet elf cup and Glistening ink cap, for example, break down decaying matter. Yeast fungus plays an important role in the production of bread and brewing. I'll drink to that! Many plants rely on fungi to survive.

Fungi can be single celled or very complex multicellular organisms. They are found in just about any habitat but most live on the land, mainly in soil or plant material. The mushroom in the forest that we see is in fact just the fruiting part of the fungus, the main body of the organism is underground: a network of thread-like structures that can spread for many meters called the *mycelium* (ask any Star Trek fan). The *mycelium* has a similar function in fungi that roots have for plants. Complex and fascinating, I would recommend Melvin Sheldrakes book ***Entangled life*** for further reading.

Woodlands, and in particular the alluvial woodlands, are also home to a great variety of mosses. They date back 450 million years and have survived and thrived through a range of drastic climate changes. They were the first plants to cover the earth but unlike most other plants, mosses don't have roots. Instead, they have *rhizoids*, which are small hairlike structures that anchor the plant to rock, bark or soil.

Mosses grow in many different environments; from cold snowy mountains to baking hot deserts. They also play a vital role in the development of new ecosystems as they are among the first plant colonisers of disturbed sites, such as deforested areas or habitats affected by forest fire. They stabilise the soil surface and retain water, helping new plants to grow. Moss communities offer microhabitats that are critical to the survival of a diversity of organisms. They provide valuable shelter for insects to live, lay their eggs and hunt for food. I recommended reading ***Gathering Moss*** by the superb writer Robin Wall Kimmerer, to learn more about mosses.

Moss communities in alluvial woodland




Like mosses and fungi, lichens are old, very old. They have been around for more than 250 million years and are one of the most successful organisms on the planet. In fact, most of the species discussed in this book have been knocking about happily for millions of years, 450 million years in the case of plants. Humans, on the other hand, a mere two million, although I'm not sure about the Rolling Stones. We should never forget that we are truly the new kids on the block; evolved from nature, part of nature.

Lichens can grow on trees, stone, metal, and even glass but wherever they appear they bring a wonderful range of colour and texture to the pallet of the natural world. So, they are very old and very common, but they are one of the strangest creatures you will ever come across. Lichens are a unique life form, capitalising on a symbiotic relationship between fungi and algae. Simply put, the fungal partner provides protection and nutrients while the algal partner provides energy through photosynthesis and the processing of carbon dioxide.

Ireland has over 1,200 recorded lichens, one of my favourites is the Chewing gum lichen and no points for guessing its resemblance to discarded gum on our footpaths. So the next time you are walking in the park or The Ramparts have a look at the trees, the footpath, the rocks or even the metal sign for the river on the Bridge of Peace, to see these amazing lifeforms.



Lichen and moss communities, St Dominic's Park, February 2025

Rampart woodland and hedgerow

Section of Rampart woodland: Not far into our walk along the Greenway, past the ‘Graffiti Wall’, we come to this tiny, hundred-meter stretch of natural deciduous woodland.

Around 12,000 years ago, Ireland was covered in snow and ice. This was known as the Ice Age. As the weather became warmer, the snow and ice melted, plants and trees began colonising the land. Over the next 1,500 years the ice melted and the seas rose, eventually the land bridges were flooded and Ireland became an island. Our native trees and animals are the ones that reached here before we were separated from the rest of Europe

Male blackbird.

Bullfinch.

Robin.

Tree creeper.

BirdWatch Ireland

Gold crest

BirdWatch Ireland

Wren

BirdWatch Ireland

Longtail tit

Donnock

Woodland Birds recorded along The Ramparts

(snakes didn't make it). Our most common native trees include Oak, Ash, Hazel, Birch, Scots pine, Rowan and Willow. Eventually, people introduced other trees to Ireland, such as Beech, Sycamore, Horse chestnut, Spruce, Larch and Fir. Hazel and Oak were brought here by birds and animals across the land bridges from Britain and the rest of Europe. The seeds of other trees, such as Willow and Birch, are so light that they were probably blown here by the wind.

A gap left by a fallen tree allows sun light to reach the shaded woodland floor (left) where Lesser celandine and Primroses (right) bloom among the ivy, moss and Sycamore saplings engaged in a race to the sky. Only a handful of these saplings will make it to maturity crowding out their slower growing siblings along the way.

Along the north facing steeper slopes that border The Ramparts section of the Boyne, we find small areas of deciduous and planted coniferous woodland. The tiny, isolated fragments of natural deciduous woodland near the beginning of this stretch of trail are all that remain of this natural woodland which once populated the steep slopes. In the not too distant past, this woodland would have stretched continuously from the bus station in Drogheda along the banks of Ballsgrove, all the way out to Oldbridge, Townley Hall and beyond.

Today, as degraded as it is, this section still provides a vital natural corridor for birds, insects and mammals to access other feeding and breeding areas. Broadleaved species include Oaks, Ash, Willows, Hazel, Cherry, Sycamore and Beech. Holly, Horse chestnut, Whitethorn, Blackthorn and Elder can all still be found in an impressive mature hedgerow that runs between sections of woodland on The Ramparts along this stretch of the river.

The beauty of a hedgerow is there for all to see, month by month, from early female and male flowers of the Hazel in early February on to the Blackthorn and Cherry blossoms in March, followed by the blooms of Horse chestnut Whitethorn, Cow parsley and Sycamore flowers in May.

Hazel female and male flowers

Blackthorn

Goat willow

Cherry

Horse chestnut

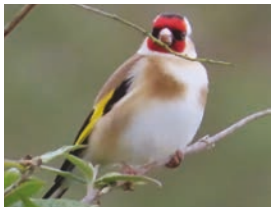
Lime tree

Hawthorn

Alder catkins

Field rose.

Bramble.



Goldfinch.

Speckled wood.

Stock image

Common pipitrells.

A 2019 survey by Teagasc determined that there were approximately 689,000 kms of hedgerows in Ireland (about 186,030 hectares of hedgerow) that are 2.7 metres wide on average, meaning that they cover about 4% of our land area.

Living corridors

While older hedges certainly exist, the majority of the hedgerow network in Ireland was initially established in the middle of the 18th century to provide agricultural services, primarily land boundaries, stock control, shade and shelter. The importance of these living boundaries to biodiversity has only recently been truly appreciated.

Although the hedgerows on the north side of the river are unkempt and overgrown, they still hold immense value for both humans and biodiversity with their ability to store carbon, and help mitigate fertilizer run-off that pollute streams and rivers.

Hedgerows are rich in biodiversity. They provide an important habitat for a wide range of animals, including, birds, bats (such as Common pipitrells and Leislers) and a variety of other mammals and insects. Hedgerows also provide a habitat for native wildflowers. They provide food and shelter, act as wildlife corridors or 'highways' for animals to move safely from one habitat to another, and are a vital part of our rural landscape.

Scrub, hedgerow and reed bed, Mell

Marshlands and reed beds

Reed bed and Whitethorn, April 2025

On the north side of the river lies the marshland and reed beds stretching over two kilometres west of the town. This is home to a large diversity of plants and animals who have adapted to live in these waterlogged conditions. However, these wetlands are not just important for biodiversity. Wetlands provide a range of benefits to people, called **ecosystem services**, many of which have economic benefits; including improving water quality by removing and sequestering pollutants and sediments in the water. Wetlands store floodwaters, acting like natural sponges and slowing down the force of flood and storm waters as they travel downstream. These natural flood-plain wetlands should be viewed as buffers, protecting

Spring tides, marshlands, February 2025


Red deer
Gold crest
Gold finch
Willow warbler
Chiffchaff
Bull finch
Reed bunting
Dunnock
Red deer
Sedge warbler
Sandmartin roost
White throat
Skylark
Long tail tit
Black cap
Linnet
Wren
Meadow pipit
Red deer
Black bird
Robin
Meadow pipit
Tree creeper
The dawn chorus
N
50m
Gold crest
Wood pigeon
Willow warbler
Green finch
Robin
Dunnock
Bull finch
Meadow pipit
Great tit
Robin
Chaffinch
Burs tit
Wren
Stone chat


Green-veined white
Wood white
Red tail
Painted lady
Butterflies & Bumblebees
N
50m
Comma
Small copper
Red tail
Speckle wood
Large white
Early
Red admiral
White tail
Wood white
Common blue
Holly Blue
Red tail
Meadow brown
Orange tip
Tree
Common cardar
Painted lady
Peacock
Buff tail
Speckled wood
Ringlet
Red tail

These maps indicate where a selection of the species referred to in this book can be found. They also graphically illustrate what little space we have left for wildlife in our area. The importance of the nearby Old Cement quarry as a feeding, resting and breeding area for many of the species found along the Boyne cannot be overstated.

Sand martins provide one simple example of this vital connection: They arrive in April from Africa, tired and hungry from their long migration. They can be found in large numbers feeding in the quarry to build up their strength ahead of the breeding season. Sand martins nest along the Boyne and in other places, but the quarry remains their prime feeding ground. Then from July on, when the young birds can fly, Sand martins use the reed beds along the marshlands each night as a safe roosting area, before the long trip back to Africa in August.

Red deer stags, Mell, February 2025

areas where people live. Drogheda, like many towns in Ireland, is no stranger to seasonal flooding.

The Boyne wetlands offer secure habitats for wildlife like Red deer and Otters. Many migratory and resident birds such as Willow warbler (a summer visitor), Reed buntings, Stonechats, Snipe and Meadow pipits nest in the wetlands. A host of other species depend on the ecological setting of wetlands for their survival.

Areas like these are vital in preventing further climate change by acting as a store of carbon. Until recently this has not been fully appreciated. In Ireland, it has still not been adequately communicated to the public just how important these habitats are and why they need protection.

Drainage channels in reed beds, Mell.

Marshland inhabitants. **First row**: Otter, Frog spawn, Red deer, Blackthorn, **Second row**: Banded demoiselle, Stonechat, Snipe, Reed bunting. **Third row**: Mallard, Hooded crow, Ragged robin, Yellow Iris. **Fourth row**: Meadow pipit, Dog violet, Lesser celandine, Lady smock.

Remarkable summer visitors

You would be forgiven for thinking that Swallows, Swifts and Martins are the only summer visitors to Ireland, but others such as Willow warblers, Garden warblers, Sedge warblers, Chiffchaffs, and Whitethroats also make the long journey in large numbers from Africa. It is estimated that over one million pairs of Willow warblers breed in Ireland each year. The numbers for Blackcaps, Whitethroats, Chiffchaffs and others would be slightly lower.

These small song birds, known to birdwatchers as LBJs – Little Brown Jobs, are not as noticeable as some of their fellow migrants, as they spend much of their time hidden in hedgerows, scrubland and marshlands. Although weighing no more than 9g (€1 coin), these birds migrate huge distances. Some chiffchaffs cross the Sahara; Senegal is their holiday location of choice. Willow warblers can travel as far as South Africa. The main wintering areas of Irish and British Willow warblers is the Ivory Coast and Ghana (BirdWatch Ireland). Their ability to travel long distances, coupled with their ability to navigate by starlight while reading the earth's magnetic field, makes them truly remarkable LBJs, and another reason why it is important to protect our hedgerows and marshlands on their behalf.

The numbers of breeding birds may seem impressive but sadly these remarkable birds are in decline due to hunting for food and trapping for the illegal pet trade all along their migration routes, as this snippet on Egypt from a report by Conservation Of Migatory Species demonstrates:

In 2012, several local and international media outlets published articles documenting an apparent increase in potentially unsustainable trapping practices along Egypt's Mediterranean coast; evidence emerged that such practices extended along around 700 kilometres of Egypt's Mediterranean coastline and the far eastern part of the Libyan coast, with up to three rows of fine-mesh trapping nets set contiguously. These nets are very difficult for many migrants to avoid as they form a barrier across their flight path.

Not much has changed. Tired and hungry and flying low the birds have little chance of avoiding capture. Lured in by calls of a safe place to rest and the opportunity of food, thousands are caught on glue sticks placed on trees a practice used in Ireland until it was banned in the late 1970s.

I have vivid memories as a child of seven in 1970 accompanying my father and a small group of men as they went catching songbirds with glue sticks in the fields south of Drogheda. Back then aviaries and caged birds were in fashion and male Goldfinches, Greenfinches and Linnets were highly sought after.

Tom Shevlin

Willow warbler

Stock Image

Sedge warbler

Stock Image

Whitethroat

David Dillon

Chiffchaff

Birds Of Conservation Concern in Ireland 2020–6 Red and Amber List (BirdWatch Ireland)

This is the list of threatened species recorded along our small stretch of river, 2025.

Red List Species (high conservation concern): Breeding – Meadow pipit, Grey wagtail. Wintering and breeding – Snipe, Redshank.

Amber List Species (medium conservation concern): Breeding – Kingfisher, Skylark, Willow warbler, Starling, Gold crest, Greenfinch, Linnet. Wintering – Turnstone. Breeding and wintering – Mallard, Teal, Lesser black back gull, Herring gull, Cormorant, Common gull.

At that age I gave little thought to the prison sentence handed down to the 'lucky' ones, those who did not die in the trapping process. I gave even less thought to the method of their capture which caused fear and distress, not to mention the dislocation of limbs and flight feathers to the unwanted birds as they were ripped from the glue sticks.

These birds were stunningly beautiful to look at and their mesmerizing song filled our house and back yard every spring and summer. All for our human pleasure. We kept birds but we never really had birds. To this day my heart sinks every time I see a caged bird. Thankfully this barbaric practice of catching wild birds has been banned in Ireland but we still have a long way to go as a species to reverse our continued ill treatment of song birds. If you would like to have a free, humane aviary, I suggest buying bird feeders and nest boxes for your garden.

The EU Birds Directive has succeeded in protecting many bird species in the EU over the past forty years. However, there is still a significant problem with the illegal capture, killing or trade in wild birds. An estimated 25 million birds are killed every year around the Mediterranean Basin alone as they migrate between Europe and Africa.

On a happier note, Sand Martins are another summer visitor. The smallest of our *hirundines* (which include Swallows and House martins) the Sand Martin can be found nesting in colonies in sandy banks along the Boyne. Sand Martins arrive in April and depart in September. They gather in large numbers to roost in autumn before migrating to Africa for the winter. Hundreds of Sand martins have been recorded in July roosting in the reed beds at the end of The Ramparts. Arriving before sunset in small groups, they grow into a feeding flock of over five hundred birds before descending to the safety of the reed beds for the night. Another reason for habitat protection

Hundreds of Sand martins arriving at their roost in the Mell reed beds, July 2025.

Park life

St Dominic's Park looking towards Donaghy's mill

St Dominic's Park in Drogheda is tiny as parks go, but the amount of people who use it all year round is phenomenal. Clearly, in large towns, the park is one of the few place that people can encounter and connect with nature (albeit in a reduced way, as most public spaces are designed for humans and not nature). But, thankfully, perceptions are changing, as councils and the public begin to understand the benefits to all of a healthier environment that promotes biodiversity.

In today's urban landscape there are some species that can handle the hustle of park life and even exploit this human desire for connection.

Drogheda's favourite Gull From the amount of bad press that these birds get, you would think that Herring gulls were a rapidly increasing pest, but in fact they are on the **Amber list** of Irish birds (**Red list** for British Birds) as both their breeding and non-breeding populations are decreasing and have done so since the early 1970s. Since then, numbers across most of Ireland have fallen by one half to two thirds.

The reasons for this are complex and varied. One factor is that Herring gulls scavenge in our rubbish bins and bags for food. In the past it would have been our landfill sites but today we have cleaned up our act a bit on that front. A lot of this food can be rotten and a harbourer of *Clostridium botulinum* – botulism to you and me – this can be fatal to the gulls and their chicks. It's a price they pay for embracing our fast-food lifestyle.

Noisy and brash they may be, but they are also clever and resourceful birds. Watch out for these gulls on the grass area of the park dancing on the spot to bring worms to the surface (when they are not eating bread or Pot Noodles that is).

Herring gull with pot noodles (left). Herring gull beside the boyne (centre). Black headed gulls (right); note the dark spot behind their eyes.

Black headed gulls are the smaller, daintier cousins of the Herring gull although they still can be a bit noisy and quarrelsome when free food appears. Adults have red legs, and in

Blackbird and a precarious nest

Starling

summer plumage, a dark brown hood on their head. In the winter, the hood in absent and is replaced by a dark spot behind the eye as the image from St Dominic's Park Feb 2025 shows. On the **Amber list** for bird conservation in Ireland, their numbers are boosted each year by winter migrants.

The song of a male **Blackbird** on a summers evening is simply a thing of beauty; something I will never tire of hearing. The female alone is the nest builder in this relationship and very clever in how she builds it. She first starts with a layer of small twigs, grass and straw. She weaves this material into a big cup and then lines this with mud, finally she lines the inside of the nest with fine grass on which to lay her eggs. All told, it takes her about two weeks to complete. It is a marvel of engineering, incredibly strong and long lasting, as this old blackbird's nest at the entrance to the park will prove.

However, it also indicates that blackbirds have a habit of building **nests** in odd places. By this I mean places that they would appear to have little or no hope of successfully fledging their chicks. It is not unusual for a female to abandon a nest with eggs and start again constructing two, sometimes three nests in a summer. This would seem like a huge strain on the females' resources but with a very stable population such setbacks appear not to have any significant impact.

Another bird to see in the park and surrounding green areas is the much-overlooked **Starling**. Best known for the incredible aerial displays – called murmurations – that they make before roosting. Lough Ennell in Co Westmeath is renowned for being a prime location to witness this stunning natural phenomenon during winter and early spring. At dusk, starlings gather in large numbers, forming flocks containing up to a quarter of a million birds. Mini murmuration (40 to 50 birds) can be seen on winter evenings around the Bridge of Peace, roosting on the communications mast at the Garda station. The starling is a beautiful bird with glossy, dark, purplish-green plumage with an iridescent sheen covered in brilliant white, V-shaped spots.

Amongst the wide variety of plants in the park, Yellow Furze, along with Dandelions, Lesser celandine and Goats's willow are early flowering plants and

Bat boxes in St Dominic's Park (left), pigeons, rook nest building and grey crow sitting tight on eggs (right).

Buff tail bumblebee on furze blossoms, The Ramparts, March 2025.

Honeybees

Goat willow

Dandelion

Lesser celandine

a vital food source for emerging insects such as bumblebee queens fresh out of hibernation. They need to build up their energy reserves to start the next generation.

Ireland is home to 21 different species of bumblebee, sadly most are in decline. A recent monitoring report from Bumblebee Conservation Trust England found a 22.5% decline in bumblebee numbers. The immediate cause of the 2024 decline was likely to have been the cold and wet conditions from late April through June. The poor spring and early summer weather severely impacted many species in their most vulnerable period; the colony establishment stage, when queen bumblebees function as single mothers and must feed themselves and their growing larvae while also incubating the nest. The results for the Irish version of this study, published May 2025, indicate that even our most common bumblebees are now in decline. See the **National Biodiversity Centre** website for more information.

The flowers of the Lime tree (mid left), which line the park, are a great source of nectar and pollen for insects along with the beautiful flowers of the hawthorn (bottom left) which can be seen all along the sublime hedge line of The Ramparts. These flowers really are the heralds of summer. Hawthorn also provides berries in the autumn, important food for a variety of birds.

Bumblebee and butterfly banks

Peacock butterfly

Caterpillars

The steep banks along The Ramparts on the south side of the river have turned out to be a haven for bumblebees and butterflies, with five of the 'big eight' bees recorded in good numbers to date (see the map at the bottom of pages 16–17).

In May along the mature hedgerow of Hawthorn, Sycamore and Willow provide ample pollen and nectar for these insects. Flowers such Common vetch, Dandelion, Lesser celandine and furze are early sources of food in April, while June and July will provide endless amounts of flowering bramble to feed from. This hedgerow and scrub is also an ideal nesting habitat for birds such Wrens, Dunnocks, Chiffchaffs, Finches and Pigeons as well as providing food and shelter for a wide variety of smaller animals and insects.

Steep overgrown banks with grassy tussocks make a perfect nesting area for Bumblebees.

Early bumblebee with mites, April 2025.
A close look at the head area of this Early bumblebee queen (above) reveals she is carrying quite a lot of mites. Most bumblebee nests contain mites. These have overwintered with the queen and the good news is that most of the mites that live with bumblebees are harmless to them and are simply clinging to the bumblebee so that they can be transported to new nests to complete their life cycle. When in the nest, the mites usually feed on wax, pollen, nest debris, and other small insects, an in-house cleaning service if you like.

The Mimics: Hover flies that look like bees
One of the best ways of staying alive in the natural world, if you are an insect with little or no defences against potential predators, is to disguise yourself as something that your enemies may think twice about before putting you on the menu. ***Volucella bombylans*** is a hoverfly that mimics the bumblebee. This species has two forms – one mimics the white-tailed bumblebee (top right) and the other mimics the red-tailed bumblebee queen (top left).There are ten recorded hoverfly mimics in Ireland. Their flight period extends from May to August.

Bumblebee nest destroyed by badgers.

With so many bumblebee nests in the area it is not surprising that their main natural predator, the Badger, has been exploiting this food source. Although quite a number of destroyed nests have been recorded to date, it is important to realise that these predators have co-existed with bumblebees for thousands of years and are not a cause for conservation concern. It is the problems caused by humans (like habitat loss, pesticide exposure and climate change) which make natural predation more of an issue for bumblebee populations. Badgers tend to dig out more nests in dry weather when their main food,

The **Tree bumblebee** is a beautiful little bee that is moving northwards as a result of climate change. The first specimen was recorded in Ireland in September 2017. It was found in St Stephen's Green, Dublin. Unlike all our other bumblebees who make their nest at ground level, this one nests above ground in tree holes and other suitable structures including empty bird boxes. It has only been a decade since the Tree Bumblebee arrived in southern England from France, a rapid expansion in evolutionary terms.

the Earth worm, is deep underground and hard to find.

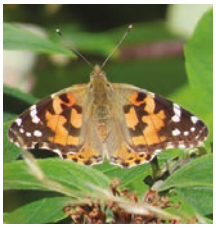
The Banded hoverfly, *Syrphus ribesii,* is a very common species of hoverfly. Its larvae are voracious predators of aphids. In common with many other species of hoverfly found along these banks, males have their eyes meeting on the top of the head, whilst females have their eyes widely separated. They can be found from March to November with population peaks in late May/early June and again in July to September. This explains why, on 21 June, they were recorded in their thousands along the grass banks section of The Ramparts feeding on bramble blossoms.



Common carder, White tail, and Early bumblebees.

There are three simple differences to distinguish between fly and bee: Bees have two sets of wings, flies one; Bees have long antennae, flies short; and flies have very large eyes nearly covering all of the face while bees have more defined eyes on the side of their heads.

Hoverfly



Painted lady

And just in case you thought it was only birds that migrate here every year, may I present, the Red Admiral, Silver Y and the Painted lady butterflies. All arrive on our shores in large numbers each year, sometimes in their millions, in the case of the Silver Y. Admirals come from southern Europe while Silver Y's and Painted ladies originate in north Africa. Nettles and thistles are the main food source for the larvae of these insects. Emerging as adults in autumn, they feed up before making the long migration south to warmer lands. Presently, those that remain will not survive the cold damp Irish winter, although climate change may alter that in years to come.

Silver Y

Red admiral





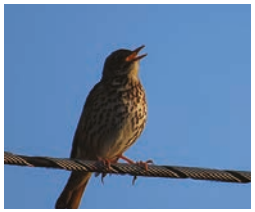

Butterflies: Small tortoise shell, Comma, Holly blue, Speckled wood, Wood white and Green veined.

The Dawn Chorus

Dunnock, May 2025.

The dawn chorus is the symphony of bird song performed each year in late spring and early summer. In spring, as the days lengthen, birds start to think about the need to breed. For the males, their song is also a reminder to their rivals that they survived the night and they're in fine fettle, with the strength, skills and stamina to sing. Many summer visitors like Blackcaps and Chiffchaffs arrive at night, increasing the competition. So, the birds already established sing their hearts out first thing to let the new arrivals know that this territory is occupied. For the females, it's an opportunity to judge the singers and choose her mate, or mates is some cases. A bit like an episode of 'The Voice' but without any romantic liaison.

Blackbird



Song thrush

Robin

Gold Crest

Longtail tit

Song thrushes, Blackbirds and Robins are among the first to sing, starting things off when the air is still, and the lights are low. Soon after, Wrens and Warblers, such as Chiffchaffs, Blackcaps and Willow Warblers then gradually join in, as do Wood pigeons and Collared doves.

Goldfinch

Blackcap

The order in which the birds join the chorus seems to be a universal fact. In 2002, scientists at the University of Bristol measured the diameter of the exposed eye surface of a set of birds and matched them to the time the birds start to sing. A clear connection was found; the bigger the bird's eye the earlier it could detect the light and so the earlier it started singing. So, Blackbirds, Robins, Thrushes were more or less finished before smaller birds like Blue tits and Blackcaps got started. If you go for a walk along The Ramparts or Marshlands in spring (I recommend downloading the **Merlin Bird ID** app on your phone) you will hear this sequence of birds announcing their salutations to another day. International Dawn Chorus Day is held on the first Sunday in May each year, which fell on 4 May in 2025. So what do we have on our small stretch? The following birds were recorded over four mornings at locations on both sides of the river (see the map at the top of pages 16–17):

5 May 2025 to 6 May 2025, Marsh land, Mell, 5.30am
Chiffchaff, Chaffinch, Robin, Blackbird, Wren, Dunnock, Song thrush, Wood pigeon, Sedge warbler, Collared dove, Great tit, Sky lark, Greater whitethroat, Goldfinch, Gold crest, Long tail tit, Reed bunting, Stonechat, Meadow pipit and Linnet.

10 May 2025 to 11 May 2025, The Ramparts, 5.30am
Blackbird, Chiffchaff, Blackcap, Dunnock, Long tail tit, Greenfinch, Robin, Wood pigeon, Wren, Gold crest, Song thrush, Blue tit, Goldfinch, Great tit.

Mending the connections. Our ancient future.





'The three letter words of the genetic code are the same in every creature – CGA mean arginine and GCG means alanine in bats, beetles, beech trees, bacteria, viruses, even in archaebacteria living in boiling temperatures in sulphurous springs – wherever in the world, whatever animal, plant or bug, you look at, if it is alive it will use the same dictionary and know the same code. All life is one. Seaweed is your distant cousin, and anthrax one of your advanced relatives. The unity of life is an empirical fact'.

Matt Ridley, *Genome: The autobiography of a species in 23 chapters*

Today in the face of a climate crisis, it is easy to feel powerless and disillusioned about our future. Even with all the scientific evidence to date, we seem incapable of understanding that our interests are biologically harnessed to the plants, animals and habitats we are destroying. We tend to forget that the air we breathe, food we eat, water we drink, clothes we wear, medicines that heal us, the materials that make up our shelters – not to mention the ability to inspire and heal – all come from the natural world.

But the river Boyne, flowing through the small 2.5km stretch recorded for this book, is a fantastic example of how everything in life is in constant change. Like the river, nothing is ever still, everything is always on a journey from one state to another, and so there is always room for hope, hope that we can mend our ways.

Mend: to put into good order something that is injured, damaged, or defective.

Our small stretch of river and adjoining habitats are damaged but not beyond mending. Agricultural and industrial pollution is a constant threat to the life-giving Boyne. Meadows and hedgerows have been removed for housing. Existing habits are under threat with meadow lands on the north side beside the marshland ear-marked for development. As Drogheda grows, we continue to push nature to the very limits of our town, to places deemed to have little or no value in human eyes. Some, like the quarry, are used-up and abandoned, others, like marshlands, steep hillsides, overgrown scrubland and flooded woodlands, are not considered suitable for exploitation … yet.

And yet, within the slivers of woodland, meadows, marshland and hedgerows that remain on our tiny stretch of river, red deer roam the wetlands, Sedge warblers, Reed bunting and Meadow pipits' nest, hundreds of Sand martins roost here. Salmon, Lamprey and Eels still run the river (albeit in reduced numbers) to their spawning grounds. Otters, Kingfishers, Egrets, Herons and Cormorants all fish the river. Numerous other species of birds feed along its shoreline.

The fragments of remaining woodland and hedgerows provide food and shelter for an impressive number of birds; Long tail tits, Green finches, Dunnocks, Willow warblers, Linnets, Gold crest, Chiffchaff, Blackcaps and Goldfinch to name but a few. The wildflowers and blossoms of both The Ramparts and wetlands are food for countless insect species, which in turn are the primary food source for birds, bats and other small mammals, such as wood mice and shrews. You get the picture!

Above all, the threats facing our small section of the natural world, habitat loss and degradation is by far the biggest. Over the years, voluntary groups and individuals, the National Parks and Wildlife Service and Louth County Council have worked hard to highlight the importance of the Boyne and its environs. Several reports have been produced including **Drogheda Biodiversity Action Plan 2009**, and **Boyne Vision 2023**. All have made sensible recommendations on how to protect our natural heritage. Significantly, natural heritage topped the poll of what people value most about the Boyne in the 2023 report.

I hope this publication, and the accompanying information panels erected along the Boyne Greenway, will in some small way continue to create an awareness and appreciation of the beauty and complexity of nature that surrounds us. I again encourage you, the reader, to simply pause and look again at what we have and what we stand to lose.

Tony Conaghy.

List of common and scientific names of species mentioned in the text

Birds

Black backed gull, *Larus marinus*
Black headed gull, *Chroicocephalus ridibundus*
Blackbird, *Turdus merula*
Blackcap, *Sylvia atricapilla*
Blue tit, *Cyanistes caeruleus*
Brent goose, *Branta bernicla*
Brown headed gull, *Larus ridibundus*
Bull finch, *Pyrrhula pyrrhula*
Buzzard, *Buteo buteo*
Chaffinch, *Fringilla coelebs*
Chiffchaff, *Phylloscopus collybita*
Collared dove, *Streptopelia decaocto*
Cormorant, *Phalacrocorax carbo*
Dunnock, *Prunella modularis*
Garden warbler, *Sylvia borin*
Gold crest, *Regulus regulus*
Goldfinch, *Carduelis carduelis*
Golden plover, *Pluvialis apricaria*
Great tit, *Parus major*
Greater whitethroat, *Curruca communis*
Greenfinch, *Chloris chloris*
Greenshank, *Tringa nebularia*
Grey heron, *Ardea cinerea*
Grey wagtail, *Motacilla cinerea*
Herring gull, *Larus argentatus*
Hooded crow, *Corvus cornix*
Kingfisher, *Alcedo atthis*
Linnet, *Carduelis cannabina*
Little grebe, *Tachybaptus ruficollis*
Long tail tit, *Aegithalus caudatus*
Mallard, *Anas platyrhynchos*
Meadow pipit, *Anthus pratensis*
Oystercatcher, *Haematopus ostralegus*
Red shank, *Tringa totanus*
Reed bunting/Warbler, *Emberiza schoeniclus*
Robin, *Erithacus rubecula*
Rook, *Corvus frugilegus*
Sand martin, *Riparia riparia*
Sedge warbler, *Acrocephalus schoenobaenus*
Skylark, *Alauda arvensis*
Song thrush, *Turdus philomelos*
Snipe, *Gallinago gallinago*
Starling, *Sturnus vulgaris*
Stonechat, *Saxicola rubicola*
Swallow, *Hirundo rustica*
Swift, *Apus apus*
Teal, *Anas crecca*
Tree creeper, *Certhia familiaris*
Turnstone, *Arenaria interpres*
Whitethroat, *Sylvia communis*
Willow warbler, *Phylloscopus trochilus*
Wood pigeon, *Columba palumbus*
Wren, *Troglodytes troglodytes*

Butterflies

Comma, *Polygonia c-album*
Common blue, *Cupido minimus*
Green-veined white, *Pieris napi*
Holly blue, *Celastrina argiolus*
Meadow brown, *Maniola jurtina*
Orange tip, *Anthocharis cardamines*
Peacock, *Inachis io*
Red admiral, *Vanessa atalanta*
Ringlet, *Aphantopus hyperantus*
Silver Y, *Autographa gamma*
Small copper, *Lycaena phlaeas*
Wood white, *Leptidea sinapis*

Bees

Buff-tailed bumblebee, *Bombus terrestris*
Common carder bumblebee, *Bombus pascuorum*
Early bumblebee, *Bombus pratorum*
Honeybee, *Apis mellifera*
Red-Tailed bumblebee, *Bombus lapidarius*
Tree bumblebee
White-tailed bumblebee, *Bombus lucorum*

Damselfly

Banded demoiselle, *Calopteryx splendens*

Other insects

Banded hoverfly, *Syrphus ribesii*

Mammals

Common pipistrelle bat, *Pipistrellus pipistrellus*
Leisler's bat, *Nyctalus leisleri*
River otter, *Lutra lutra*
Red deer, *Cervus elaphus*
Red fox, *Vulpes vulpes*

Amphibians

Common frog spawn, *Rana temporaria*

Fish

Atlantic salmon, *Salmo salar*
Brown trout, *Salmo trutta*
Lamprey, *Lampetra fluviatilis*
Minnow, *Phoxinus phoxinus*
Sea trout, *Salmo trutta trutta*
Stickleback, *Gasterosteus aculeatus*

Plants

Alder, *Alnus glutinosa*
Blackthorn, *Prunus spinosa*
Beech, *Fagus sylvatica*
Birch, *Betula pendula*
Bramble, *Rosaceae*
Cherry, *Prunus avium*
Chewing gum lichen, *Lecanora muralis*
Colts foot, *Tussilago farfara*
Common fleabane, *Pulicaria dysenterica*
Common vetch, *Vicia sativa spsegetalis*
Cow parsley, *Anthriscus sylvestris*
Crack willow, *Salix fragilis*
Cuckooflower/Lady smock, *Cardamine pratensis*
Dandelion, *Taraxacum vulgaria*
Dog rose, *Rosa canina*
Dog violet, *Viola riviniana*
Elder, *Sambucus nigra*
Fir, *Pinaceae*
Glistening inkcap, *Coprinellus micaceus*
Goat willow, *Salix caprea*
Gorse/Furze, *Ulex europaeus*
Greater tussock sedge, *Carex paniculata*
Hawthorn, *Crataegus monogyna*
Hazel, *Corylus avellana*
Holly, *Ilex aquifolium*
Horse chestnut, *Aesculus hippocastanum*
Larch, *Larix decidua*
Lesser celandine, *Ficaria verna*
Lime tree, *Tilia x europaea*
Marsh marigold, *Caltha palustris*
Meadowsweet, *Filipendula ulmaria*
Oak, *Quercus robu*
Primrose, *Primula vulgaris*
Purple willow, *Salix purpurea*
Ragged robin, *Silene flos-cuculi*
Rowan, *Sorbus aucuparia*
Rusty willow, *Salix cinerea*
Scarlet elf cup, *Sarcoscypha austriaca*
Scots pine, *Pinus sylvestris*
Spruce, *Picea abies*
Sycamore, *Acer pseudoplatanus*
White willow, *Salix alba*
Whitethorn, *Crataegus monogyna*
Yellow Iris, *Iris pseudacorus*

Common Fleabane

To know fully even one field or land is a lifetime's experience.
In the world of poetic experience it is depth that counts, not width.
A gap in a hedge, a smooth rock surfacing a narrow lane,
a view of a woody meadow,
the stream at the junction of four small fields –
these are as much as a man can fully experience.

Patrick Kavanagh

drogheda TIDY TOWNS

NPWS An tSeirbhís Páirceanna Náisiúnta agus Fiadhúlra National Parks and Wildlife Service

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