

Online edition: ew 2009-0900
Print edition: ISSN 2009-8464



An tIonad Náisiúnta
Sonraí Bithéagsúlachta
National Biodiversity
Data Centre

Biodiversity

IRELAND

ISSUE 30 SPRING/SUMMER 2026



**Ireland's
rarest plants**

Join our recording
scheme

**Marine
molluscs**

New checklist
for Ireland



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National Biodiversity
Data Centre

Biodiversity Ireland 30 Spring/Summer 2026

Biodiversity Ireland is published by the National Biodiversity Data Centre. Enquiries should be sent to the editor, Juanita Browne, editor@biodiversityireland.ie

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Fly Orchid, *Ophrys insectifera*

Celebrating 20 years of the National Biodiversity Data Centre

2026 marks the 20th year of the National Biodiversity Data Centre. Its establishment was the work of the Heritage Council, who saw the need for a dedicated service to manage biodiversity data for Ireland, and to mobilise data for use in research, conservation, and decision-making. This need was becoming more apparent given the changing policy focus, initially driven by the ratification by Ireland of the Convention on Biological Diversity in 1996, with its commitment to improve knowledge of biodiversity outside protected areas, and to support efforts by different sectors of society to take action to address biodiversity loss. The demand for the services provided by the Centre has grown over the years, and a very significant milestone was reached in 2022, when, following a Government decision, the National Biodiversity Data Centre was established as a Company Limited by Guarantee, with oversight by the Heritage Council, thereby securing its future and further growth.

A characteristic of our development over the years has been the huge amount of support and goodwill that the Centre has received from different quarters. The Heritage Council and the National Parks and Wildlife Service provided tremendous support and gave us the space to plot our course. We have built strong relationships with other State Bodies and the Department of Agriculture, Food and Marine, who utilise some of the specialist services the Centre provides.

In the early years, the small, highly motivated staff of the National Biodiversity Data Centre were able to draw on the existing expertise of the professional and scientific community, and harness a huge amount of interest, knowledge, and goodwill from an emerging Citizen Science network. Supporting like-minded people who have a passion for biodiversity, and seeing the goodwill this creates, has been one of the most rewarding parts of this work.

“Supporting like-minded people who have a passion for biodiversity... has been one of the most rewarding parts of this work.”

Over the years, our network of volunteer surveyors has grown steadily, resulting in more than 30,000 people contributing biodiversity sightings. There are now more than nine million observations on Ireland's biodiversity freely available to view through Biodiversity Maps, Ireland's biodiversity data and information portal. Additionally, with the assistance of volunteers, the Centre now manages an extensive network that monitors 279 transects, completes 1,962 point counts, 302 site surveys, and monitors 427 rare plant populations to better understand how Ireland's biodiversity is changing. This is a remarkable voluntary commitment.

Not being constrained by a statutory remit allowed the Centre to embrace innovative ways of doing things. This has resulted in the transformative evidence-based approach to conservation driven by the All-Ireland Pollinator

“Over the years, our network of volunteer surveyors has grown steadily, resulting in more than 30,000 people contributing biodiversity sightings.”

Plan, improved capacity to respond to the threats posed by invasive alien species, and a renewed focus on Ireland’s coastal biodiversity. The Centre built the state-of-the-art Citizen Science Portal to provide national coordination of citizen science activities, and Biodiversity Maps to revolutionise access to data on biodiversity. More than 4,000 people have attended our training workshops over the years, and 2,200 students completed courses through our eLearning platform in 2025. For its time, Ireland’s BioBlitz, which ran from 2010 to 2017, was hugely innovative in utilising digital technology to support citizen science recording activities.

All of this is underpinned by the production of an extensive catalogue of biodiversity publications, guides, posters, and identification swatches as resources to improve knowledge of Ireland’s biodiversity.

20 years on, the National Biodiversity Data Centre is in a good place. Its future is secure, and it has now become a key component of Ireland’s public sector response to the conservation of biodiversity. The staff complement has grown from the initial five in 2006 to almost 30 today, all of whom are strongly committed to making a positive contribution to the conservation of Ireland’s biodiversity. Much of the Centre’s success over the years has been driven by support and goodwill from our network of volunteers and partner organisations, for which we are truly grateful.



Dr Liam Lysaght

CHIEF EXECUTIVE OFFICER
National Biodiversity Data Centre



The staff of the National Biodiversity Data Centre

A new system to track Asian Hornet

The National Biodiversity Data Centre recently launched the Asian Hornet Reporter, a new system for reporting Asian hornet sightings in Ireland.

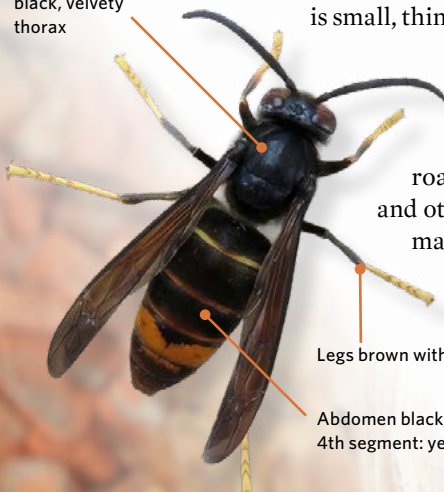


The Asian hornet (*Vespa velutina*), also known as the yellow-legged hornet, is a highly invasive species that poses a serious threat to honeybees and wild pollinators. Originally from Asia, this invasive species was accidentally introduced to France in 2004, where it spread rapidly into neighbouring countries. Several sightings have been confirmed from Ireland, but the species is not established here.

To stop the spread and establishment of the Asian hornet in Ireland, it is important that the public become aware of what it looks like, and how to report suspected sightings. It can be identified by the following features:

- Dark-coloured antennae and a long, orange face
- A dark-brown or black thorax with no stripes
- An abdomen that is mostly black, with a distinctive yellow band on the fourth segment
- Legs that are yellow at ends

Entirely dark-brown or black, velvety thorax



Although the Asian hornet does have a stinger, it is small, thin, retractable, and usually not visible. Asian hornets may be seen visiting flowers, fruit, or around beehives.

They are also attracted to roadkill, fish sold in markets, and other sources of protein. They may also hover around sweet or alcoholic drinks.

Legs brown with characteristic yellow ends

Abdomen black/brown.
4th segment: yellow/orange



The Asian Hornet Reporter is available at: invasives.ie/asianhornet/report
More information about the Asian hornet is available at: invasives.ie/asianhornet

Suspected sightings can be reported via the Asian Hornet Reporter – directly through a web browser, which is the quickest option, or by downloading the ArcGIS Survey123 app for the best user-experience. A photograph is required with every report, as images are essential for verification by the National Biodiversity Data Centre, particularly because several native species resemble the Asian hornet.

The new reporting system includes a dashboard that provides insights into Asian hornet reports submitted. This will be updated periodically, providing a clear overview of all records received, and the progress of each report – from submission, through expert assessment and investigation, to nest control where required. This transparency helps the public understand how reports are handled and how sightings contribute to protecting Ireland's biodiversity.



Kate Moore

INVASIVE SPECIES ENGAGEMENT OFFICER
National Biodiversity Data Centre



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Queens up to 30mm, workers up to 25mm long

© David Walker

An ocean of molluscs

How many species of marine mollusc do we have in Ireland? It's a deceptively simple question, but one that has intrigued naturalists, taxonomists, and citizen scientists for generations.

On Ireland's shorelines, sandy bays, rocky reefs, continental shelf, shelf slopes, deepwater canyons, and abyssal depths, marine life thrives in remarkable diversity. Among the most varied and fascinating groups are the molluscs: soft-bodied invertebrates that have evolved into an extraordinary array of forms, from spiral-shelled snails to intelligent, jet-propelled squid.

Now, with the publication of a new, comprehensive checklist of Ireland's marine Mollusca, we are closer than ever to answering that question with confidence. This updated synthesis represents years of work by marine biologist Julia Nunn, drawing together historical records, museum collections, and modern biodiversity data. It provides not just a number, but a baseline, a snapshot of what we currently know about Ireland's marine molluscan fauna, and a foundation for future discovery.

The last published checklist of Irish marine Mollusca dates from 1902, by Albert Russel Nicholls, who came up with a list of 546 species. While the exact total continues to evolve, as taxonomy is refined and new species are recorded, this new checklist confirms that at least 984 marine mollusc species have been recorded in Ireland. This richness reflects the island's unique position at the crossroads of cold northern and warmer southern waters, as well as the diversity of habitats found around our coasts.

Crucially, this effort is not confined to academic circles. Initiatives such as Explore Your Shore!, run by the National Biodiversity Data Centre, are playing an increasingly important role in documenting Ireland's marine life. Through citizen science, thousands of records have been gathered, helping to map the distribution of species and detect changes over time. The Explore Your Shore! dataset illustrates how citizen science can contribute meaningfully to scientific knowledge.

To appreciate the scale of Ireland's marine molluscan diversity, it helps

to explore some of the major groups represented in the checklist.

Nudibranchs are often described as the jewels of the sea, and are among the most visually-striking marine mollusc species. These shell-less sea slugs display vivid colours, electric blues, fiery reds, and intricate colour patterns, that rival many tropical species. Despite their delicate appearance, nudibranchs are highly specialised predators, feeding on sponges, hydroids, or even other sea slugs. Irish waters host upward of 96 species, many of which can be found by careful searching in rockpools, or by divers exploring subtidal reefs.

The **cephalopods** are arguably the most charismatic of all molluscs. This group includes octopuses, squid, and cuttlefish, animals renowned for their intelligence, rapid colour-changing abilities, and complex behaviours. Species such as the Curled Octopus and the Atlantic Bobtail Squid are regularly recorded in Irish waters, alongside more enigmatic species such as the Seven-armed Octopus, a deepwater species that sometimes strands on the Sligo coast.

Though less frequently encountered by the casual shore explorer, strandings and fisheries data, combined with citizen observations, continue to expand our understanding of their presence and 49 cephalopod species are included in the checklist.

Aeolidiella sanguinea, a nudibranch (commonly called sea slugs)
© Julia Cooper





Curled Octopus,
Eledone cirrhosa,
Sandycove,
Dublin © Katrin
Schertenleib

These animals, characterised by their two-sided shells, are essential ecosystem engineers. By filtering water, they improve clarity and nutrient cycling, while the reef-forming species, such as oysters and mussels, provide habitat for a host of other marine species. Ireland's estuaries and sandy bays are particularly rich in bivalve species, many of which are also of economic importance.

The largest group is the **gastropods**, or sea snails. From tiny, almost microscopic species, inhabiting sand grains, to larger, familiar forms, such as periwinkles and topshells, gastropods dominate in terms of species count, with 569 species listed (though this also includes nudibranchs). They occupy nearly every available niche: grazing on algae, scavenging detritus, or preying on other invertebrates. Their shells, often beautifully sculpted and patterned, are common sights along Irish beaches, and for many people, they offer a key entry point into marine biodiversity recording. They are also the species group that predominates on rocky shores, and are most likely to be encountered by the public.

Closely following are the **bivalves**, with 313 species listed, a group that includes clams, mussels, oysters, and scallops.

Less well known, but equally fascinating, are the **chitons**. These ancient molluscs date back 500 million years. With their distinctive eight-plated shells, they cling tightly to rocks. Perfectly adapted to withstand wave action, chitons are often overlooked due to their cryptic colouring and low profile. Yet they are a consistent feature of Ireland's rocky shores and an important

Less well known, but equally fascinating, are the chitons. These ancient molluscs date back 500 million years

component of the grazing community. They are found in the deep ocean, too, with the chiton species *Stenosemus exaratus* being one of the most recent additions to Ireland's marine mollusc checklist, after being found at 3,000m in a canyon on the north slopes of the Porcupine Bank.

Even more obscure are the tusk shells (**scaphopods**), which resemble miniature elephant tusks and live buried in soft sediments.



Seven-armed Octopus,
Haliphron atlanticus,
Mulaghmore, Sligo
© Sarah Cosgrove



Blue Mussels © Eabha Hughes



Lepidochitona cinerea,
Grey Chiton © Julia Cooper



Flame Shell © Shazia Waheed



Atlantic Bobtail Squid, *Sepiolo atlantica*, Cauty's Cove, Cork © Julia Cooper



Cingula trifasciata © Jamie O'Neill



Nucella lapillus, Dog Whelk © Thérèse Maddock



King Scallop, *Pecten maximus*, showing the blue dots that are functional eyes it uses to detect predators © Dave Wall

Advances in molecular science have reshaped our understanding of molluscan species, and the checklist reflects these modern classifications. For recorders and enthusiasts, this can mean a learning curve, but also an exciting opportunity to engage with cutting-edge science.

It is important to recognise that any checklist is, by its nature, a work in progress. Taxonomy changes as new techniques reveal hidden relationships. Species are added as new records are confirmed. Others may be reclassified or removed. The figure of 984 species is not an endpoint, but a milestone. For Ireland, this growing understanding of marine molluscs is something to celebrate.

Rarely seen unless specifically searched for, their inclusion in the new checklist highlights the importance of comprehensive surveys that go beyond the easily visible.

One of our least known groups are the **Solenogastres**, which are small, worm-like marine molluscs that lack a shell, and instead have bodies covered in tiny calcium carbonate spicules. They live on the ocean floor, often in deep or cold waters, and move using a narrow groove rather than a typical molluscan foot. With simple heads lacking eyes or tentacles, they mainly feed on cnidarians such as soft corals and hydroids. These unusual animals are important to scientists because they may resemble early ancestral forms of molluscs, and 11 species are included on the Irish checklist.

It reflects not only the richness of the ecosystems themselves, but also the dedication of those who study, record, and protect them.

The checklist of the marine Mollusca for the island of Ireland and adjacent waters can be downloaded from the National Biodiversity Data Centre website at: biodiversityireland.ie/publications/



Dave Wall

MARINE BIODIVERSITY PROGRAMME MANAGER
National Biodiversity Data Centre

Invasive species in the marine environment

Marine ecosystems are inherently connected – while ocean currents and changing conditions facilitate natural spread, human activities, such as global shipping and trade, significantly accelerate the movement of invasive species across borders, making this a shared global challenge rather than a localised issue. This is why it is so important to learn from the experiences of other countries, and to work closely with our neighbours. International conferences and scientific events play a vital role in this process.

Ireland was invited to participate in an international workshop hosted by the Joint Research Centre in Italy in February, and the National Biodiversity Data Centre were asked to attend. This workshop brought together experts from across Europe to progress the methods we use to assess invasive species in the

marine environment. It was so encouraging to see efforts to continue to improve regional collaboration and coordination.

In October 2025, I had the privilege of attending the International Conference on Marine Bioinvasions XII in Madeira. We heard about the progress by various countries on their monitoring programmes. Saudi Arabia launched its first monitoring project in 2024, and has made a lot of progress in a short time, while the Netherlands have, impressively, been tracing invasion pathways through continuous monitoring for decades. Many nations, including Ireland, integrate citizen science into their monitoring, so be sure to look out for and record invasive species on our shores, through the exploreyourshore.ie portal.



Victoria Poppleton

MARINE INVASIVE SPECIES OFFICER
National Biodiversity Data Centre



Field guide for annual surveys of regulated plant pests



A sample pest profile from the Annual Surveillance Field Guide - for *Aromia bungii*, the red-necked longhorn beetle.

The earlier an invasive plant pest is detected following introduction, the greater the opportunity for containment, management, and eradication. Therefore, plant health surveillance programmes focused on early detection surveys play a critical role in protecting Ireland’s natural environment, and forestry and agricultural sectors. EU plant health legislation regulates a large number of pests, many of which affect a wide range of hosts and sectors, which necessitates planned and structured surveillance programmes.

To support this work, the Pest Risk Analysis Unit (PRAU) developed the Irish Plant Pest Risk Register, a tool designed to prioritise pests most relevant to Ireland and their high-risk host plants. The risk register has become the basis for survey-planning for regulated pests in

Ireland (see article in *Biodiversity Ireland*, Issue 28 Spring/Summer 2025).

The vast majority of regulated pests are rarely encountered in Ireland, making familiarity with signs and symptoms particularly important for early detection.

Building on the pest and host analysis in the Irish risk register, the PRAU developed the *Annual Surveillance Field Guide* to provide practical, field-based guidance for inspectors conducting official surveys.

The guide covers seven key sectors (Field, Forest, Garden, Greenhouse, Nursery, Orchard/Vineyard, and Public Sites) and 55 unique regulated pests, with many species appearing across multiple sectors due to their broad host range and different pathways of entry. Each pest profile includes a concise description of key observable symptoms of potential infestation, supported by images. In addition to general sampling guidance provided at the beginning of the guide, specific sampling instructions are included for each pest. Guidance on the timing of surveys (based as far as possible on Irish climatic conditions) is also provided to support detection when symptoms and signs are most likely to be visible.

In addition to supporting Department of Agriculture, Food and Marine (DAFM) inspectors in conducting official surveys, the guide has also been published as part of the *DAFM Plant Health Professional Operator Technical Guidance* online resource: https://assets.gov.ie/static/documents/f30ae0a9/Annual_Surveillance_Field_Guide_1.pdf This makes the guide accessible to stakeholders and a wider audience, helping to enhance awareness and strengthen surveillance capacity.

Building on the success of the Annual Surveillance Field Guide, work is now underway to develop guidance for multi-annual surveillance programmes. These surveys cover regulated pests that are monitored on a multi-annual cycle (at least one survey in seven to 10 years) rather than annually, as set out in EU Plant Health Regulations. As knowledge of these pests is often more limited and they are less familiar to inspectors, the development of practical guidance is particularly important.

The Annual Surveillance Field Guide translates previous PRAU work, such as the risk register, together with EU regulatory requirements, into practical field guidance. This resource strengthens Ireland’s plant health preparedness and supports more-effective surveillance.



Conor Francis McGee

AGRICULTURAL INSPECTOR,
PEST RISK ANALYSIS UNIT,
Department of Agriculture, Food and Marine



Andy Bourke

ASSISTANT AGRICULTURAL INSPECTOR,
PEST RISK ANALYSIS UNIT,
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On the trail of the Twite

The Twite (*Linaria flavirostris*) demonstrates that you cannot tell how special an organism is just by looking at it. A streaky, little, brown finch, at first glance it resembles a female or immature-male Linnet, to which it is quite closely related. While differences between the two are subtle, the Twite's call usually gives it away. But while the Linnet is widespread in rough habitats throughout Ireland, the Twite is now extremely rare. It has become confined to a handful of breeding strongholds in remote coastal locations, and it is not even certain that all of these places still contain nesting birds. Far from a 'common or garden' European finch, the Twite is really a bird of the Asian highlands. Other breeding sites occur on the fringes of Scandinavia, Britain, and Ireland, with a considerable gap in between this and its core range, a curious disjunct distribution not often seen in birds. The first and, so far, only comprehensive study of Ireland's Twite population was carried out by Derek McLoughlin for his 2009 doctoral thesis, with funding from the National Parks and Wildlife Service (NPWS). In the intervening years, only sporadic records have been made during the Twite's breeding season, with most Irish observations being of wintering flocks likely to have bred elsewhere.

With all this in mind, in 2025, we undertook three survey visits to the coast of north Mayo, which Derek identified as the Twite's most important breeding stronghold in Ireland. We were unable to cover the whole territory due to the scale and sheer ruggedness of it, with nesting habitat occurring on stretches of undulating coastal cliffs that jut up between small fishing villages and farmland. But by systematically walking roads and right-of-way paths to the cliffs, we were able to gather proof that the Twite still breeds here, and ascertain the minimum numbers of pairs, though we could not provide a maximum population estimate. By mapping the nest visits and foraging trips observed,



we demonstrated that at least six pairs nested on the Mullet Peninsula and a minimum of seven pairs on the north coast of mainland Mayo in 2025. The layout of the habitat does not seem to have changed too much since Derek McLoughlin painstakingly mapped it 20 years ago, with nest sites confined to small pockets of suitable habitat, mostly on sheer cliffs where not even the most foolhardy sheep can graze. However, we did note the abundance of *Gunnera tinctoria* and the threat it poses to nesting and foraging areas. Accounting for the places we did not survey, we concluded the picture is likely to be broadly similar to Derek's 2009 estimate of 30-50 pairs breeding in Mayo.

The Twite is not an easy bird to survey. It is small and unobtrusive, and we found we usually heard it before we saw it. The remoteness of the nesting places also means they are not often observed. As the Twite's call is one of its most distinctive traits, we ran a bioacoustic recording device for two weeks, capturing 47 audio recordings of Twite. By publishing our findings, submitting data to Biodiversity Maps (<https://maps.biodiversityireland.ie/Dataset/20/Species/280329>), and depositing our audio recordings in the xeno-canto repository (<https://xeno-canto.org/>), we hope to make our observations available in a way that can help to inform future insights into this remarkable little bird.



Fionn Ó Marcaigh and Tony Murray are ornithologists in the Scientific Advice and Research Directorate of the NPWS



NPWS An tSeirbhís Páircanna Náisiúnta agus Fiadhúirí National Parks and Wildlife Service

Monitoring moths on Irish farms

As the Farmer Moth Monitoring Programme enters its second year, Tim Butter looks back at the results from 2025.



Canary-shouldered Thorn

Moths, like other pollinating insects, are in decline. However, our knowledge of moth populations relates mostly to habitats such as woodland, bogs, or gardens, as these are where most moth surveys take place. The main land use in Ireland is agriculture, so the Farmer Moth Monitoring Programme will help us to understand what is happening to moth populations. This data also supports the All-Ireland Pollinator Plan.

The Farmer Moth Monitoring Programme is a citizen science initiative that enables farmers to record moths on their own farms, and is funded by the Department of Agriculture, Food, and the Marine. In 2025, 59 farmers actively contributed moth data, from locations right across the Republic of Ireland, including all types of farm activity. Moth surveys, using low-cost battery-powered LED equipment, were undertaken on one night every two weeks from mid-April to the end of September. Since each farmer runs two sets of equipment, one in the middle of a field and the other by a hedge in the same field,

this amounted to just over 1,400 nights of moth surveys across the entire project network.

Through this scheme, there were 23,059 individual moth sightings, of 371 different species, representing almost 25% of the Irish moth species checklist. The average farm recorded 70 species and 384 individual moths. As to be expected, the majority were common, generalist species that can live in a broad range of habitats. A number of rarer species were recorded, including some Red List species, such as Dog's Tooth, Small Purple-barred and Freyer's Pug. Among the rarer migrant moths, there were records for Clifden Nonpareil and L-album Wainscot.

But it is the common moth species that form the basis of the dataset. The five most frequently recorded species were Setaceous Hebrew Character, Small Square-spot, Large Yellow Underwing, the Common/Lesser Common Rustic aggregate, and White Ermine. As the dataset develops over the coming years, we hope to be able to determine whether moth populations on farmland are stable, expanding, or declining. We also have preliminary data regarding the farm types that support highest numbers and diversity.

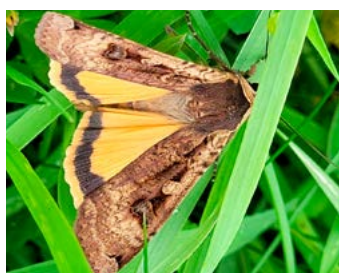
The Farmer Moth Monitoring Programme is proving to be extremely popular with participating farmers. Of the 59 farmers who took part in 2025, 57 have signed up again for 2026 – a very high retention rate for a citizen science project. Opening the moth traps in the morning is always exciting. You never know what might be inside, and the moths are quiet at this time, and can be closely examined and admired before being released. It gives a great insight into the broader biodiversity on the farm, as you get a peek into the hidden world of these nocturnal insects. It makes you wonder what other wildlife is out and about after dark!



Buff Ermine
All © Tim Butter unless stated



Burnished Brass



Large Yellow Underwing



L-album Wainscot © Eimear O'Donnell



Tim Butter

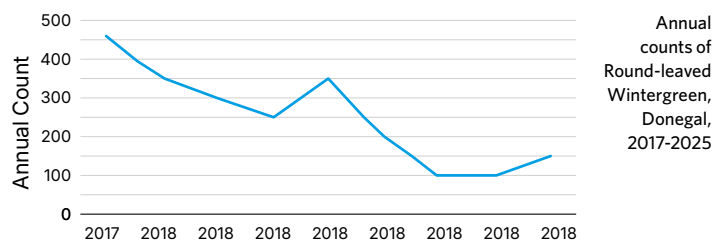
FARMER MOTH MONITORING
SCHEME OFFICER
National Biodiversity Data Centre

Recording Ireland's rarest plants

Round-leaved Wintergreen, *Pyrola rotundifolia* subsp. *maritima*, one of Ireland's rare plants

The Rare Plant Monitoring Scheme was launched in 2017, with agreement from the National Parks and Wildlife Service. The scheme is framed around the 2016 Vascular Plant Red List, and is mainly focused on monitoring vulnerable, near-threatened, and rare least-concern species, with a view towards contributing high-quality data on these species to future Red Lists. When someone submits a casual record of a rare plant to the National Biodiversity Data Centre, they are asked if they would be willing to visit their rare plant population once a year, during its flowering period, to count the number of plants present. Data on the plant's location, the plant count, and additional information about the site is submitted. In 2017, volunteers monitored 37 populations, across 25 taxa. In 2025, this has increased to 427 populations, across 129 taxa.

When assessing the national conservation status of very rare species, according to IUCN Red List methodology, the use of annual population count data is recommended. Given the number of rare plant species a country might have, this information can be very difficult to collect in any volume. This citizen science project relies on the generosity of expert volunteers who 'keep an eye' on their local rare populations and submit standardised count data once a year. When collated over time, this information makes a very important contribution to efforts to protect these species.



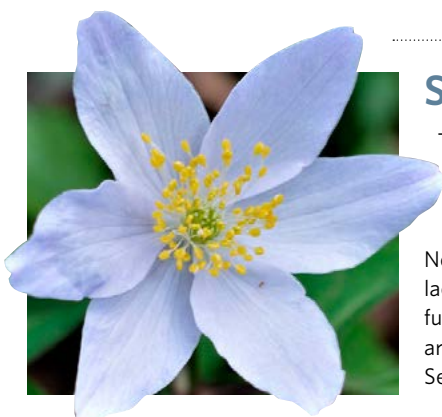
The Rare Plant Monitoring Scheme has proved popular, and we are very grateful for the support of our volunteers. They have been willing to become involved, partly because they see how their data will contribute to conservation, but also because they are asked to carry out a dedicated task that is not too time consuming, and that can be planned for each year. Many recorders feel protective of their local rare plant population, and are keen to check on its status each year. By doing this together, and centrally managing the data, we can help to preserve these plants into the future.

To find out more or to get involved, please visit: biodiversityireland.ie/surveys/rare-plant-monitoring



Oisín Duffy

SURVEYS AND RECORDS OFFICER
National Biodiversity Data Centre



Spring Flowers Project

This project was begun in 2017 as a joint initiative between the Botanical Society of Britain and Ireland and the National Biodiversity Data Centre. It is a perfect project for beginner botanists, encouraging recorders to submit sightings of a list of 20 spring-flowering species.

Not only does it encourage people to record early-flowering species that can otherwise lack data, but, like all biodiversity recording, it is valuable because it contributes to furthering plant conservation in Ireland. Many of the spring flowers chosen for the project are very distinctive, making it a good way for those new to recording to get involved. See biodiversityireland.ie/surveys/spring-flowers-project-2026



The Large Carder bumblebee, just one of Ireland's rare wild bees © Colin Stanley



Project Manager and Co-founder of the All-Ireland Pollinator Plan, Dr Úna FitzPatrick, takes a look back at the first decade of action for pollinators across the island of Ireland



10 years of the All-Ireland Pollinator Plan

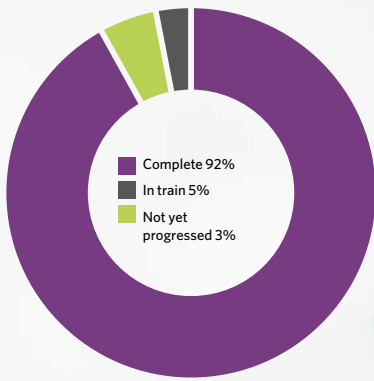
Our pollinating insects are essential to the health of our environment, and the pollination services they provide are worth millions of euro to our economy, being vital to the success of industries such as agriculture and food production.

The All-Ireland Pollinator Plan was established in 2015 to tackle pollinator declines, becoming one of the first pollinator action plans of its kind in Europe. It is a voluntary framework that brings together different sectors across the island to create a landscape where pollinators can survive and thrive. Implementation is coordinated by the National Biodiversity Data Centre, and it has an island-wide steering group who provide oversight. A core ethos is to explain what pollinators need, and what simple, cost-effective and evidence-based actions each of us can take to help. An extensive suite of guidelines are all freely available at pollinators.ie

On behalf of the team within the National Biodiversity Data Centre, it is a huge privilege to write this piece at the end of the second phase of the Pollinator Plan (2021-2025). Many positive things have happened over the past five years.

The All-Ireland Pollinator Plan continues to be recognised as leading the way in Europe, with many other countries interested in replicating our approach. A vibrant research community has developed in universities, their work ensuring the Plan remains evidence-based. National pollinator monitoring schemes are now in place, supported by citizen science initiatives, allowing us to properly assess the impact of the Pollinator Plan into the future. We have witnessed people not only taking action locally, but also thinking about how to partner with neighbouring communities to create ecological corridors.

I have feared that, despite its importance, the All-Ireland Pollinator Plan might run its course. Thankfully, the last five years have seen it go from strength to strength. Support has grown across all sectors, from farmers to gardeners, councils to businesses, individuals and community groups to schools, sports clubs, and faith communities. All 42 councils on the island have voluntarily agreed to take actions for pollinators on public land. Transport authorities have made changes to our road, rail, and waterway networks to better support pollinators.



Status of the 186 actions of the All-Ireland Pollinator Plan 2021-2025



Over 5,000 sites have been reported across all sectors as now pollinator-friendly

Helping pollinators is not just about biodiversity gains, and the financial, climate, health, and other benefits it brings. The All-Ireland Pollinator Plan creates social connections as we work together, and fosters inspiration as we create spaces where we can stop for a moment and see the wonder and beauty of nature in our daily lives.

Despite all our progress, we must face the fact that pollinators remain in difficulties. As we take stock after the first decade, there are many lessons, and things we can do better. Seeds of change have been planted, but they need to be nurtured and protected.

The new EU Nature Restoration Law calls on Member States to improve pollinator diversity and reverse the decline of pollinator populations by 2030, and thereafter achieve an increasing trend. To support this, a new and more ambitious All-Ireland Pollinator Plan for 2026-2030 will be launched later in 2026. The next phase will be supported through funding from the Department of Agriculture, Food and the Marine; the National Parks and Wildlife Service; the Government of Ireland's Shared Island Fund; and the Northern Ireland Environment Agency. It will also see a new and expanded team within the National Biodiversity Data Centre.

If we have learned anything over the past five years, it is this: what we are doing is working - we just need to do much more of it.

The final review of the All-Ireland Pollinator Plan 2021-2025 can be accessed at: pollinators.ie/aipp-2021-2025/final-review

Implementation of the AIPP 2021-2025 was managed by Dr Úna FitzPatrick and delivered by a team of three project officers in the National Biodiversity Data Centre, Kate Chandler, Sarah Kelly, and Ruth Wilson.

Farmers have embraced actions such as maintaining flowering hedgerows, meadows, and reducing pesticide use.

Many local communities have transformed. All over the island of Ireland, manicured green spaces are now mini-meadows. Close-cropped hedgerows now burst with spring blossom. Pesticide-drenched borders are now sunny celebrations of dandelions. At the heart of this work, passionate volunteers are transforming the way their landscapes are managed, helping both pollinators and people. Schools, sports clubs, healthcare sites, and churches are managing land for nature. Rare pollinators, such as the Large Carder Bumblebee, face a brighter future thanks to local communities coming together to provide them with food, shelter, and safety.

We thank every single person who has taken action for pollinators over the past five years.

Helping pollinators often calls on us to manage land in less-tidy ways than we're used to, sometimes in the face of local opposition. We thank every single person who has taken action for pollinators over the past five years. It has shown that across every sector, and in every corner of this island, people do care, and that we can come together to make changes for the better.

We've also been incredibly fortunate. Many times over years, people have crossed paths with the Pollinator Plan at a time when we have needed them most – from Steering Group members to project officers and local champions, to those with new ideas they are willing to share, and for this we are very grateful.



Between 2021 and 2025, the Irish Pollinator Research Network published over 75 scientific papers relevant to Irish pollinator conservation.

A NEW COURSE ON

leafcutter bees and related species

The National Biodiversity Data Centre has developed an online identification course to teach you how to identify some leafcutter bees and related species (*Megachilidae*) of Ireland.

This course will focus specifically on leafcutter bees, mason bees, wool-carder bees, and sharp-tailed bees. These bees are important pollinators and they play a vital role in ecosystems. Once you learn how to identify them, you can submit your own records and assist with their conservation. In addition to exploring key identification features, this course covers their flight times, habitats and flower preferences. The course is free and can be accessed on the National Biodiversity Data Centre's e-Learning platform: learn.biodiversityireland.ie



Patchwork Leafcutter, *Megachile centuncularis*. Female leafcutter bees use their strong jaws to cut circular-shaped pieces from leaves. A variety of plants are used, but roses are favourites. © Line Sabroe



Brown-footed Leafcutter Bee, *Megachile versicolor* © Owen Beckett



Red Mason Bee, *Osmia bicornis* © Shutterstock



Red Mason Bee, *Osmia bicornis* © Owen Beckett



Willughby's Leafcutter Bee, *Megachile willughbiella* © Brian White



Female Willughby's Leafcutter Bee, *Megachile willughbiella*, returns to her nest with a leaf fragment. © Rolf Brecher



Coast Leafcutter, *Megachile maritima* © Owen Beckett



Gold-fringed Mason Bee, *Osmia aurulenta* © Owen Beckett



Instead of using leaf sections or mud, Wool Carder bees use bundled plant hairs. Females can sometimes be seen collecting hairs from hairy plants such as Lamb's-ear or Yarrow. © Niall Halligan



Sharp-tailed Bee, *Coelioxys* spp. © Shutterstock



Blue Mason Bee, *Osmia caerulea* © Ciarán Byrne

Red Kite is just one of Ireland's rare breeding birds.



NEW RECORDING FORM FOR

Ireland's rare breeding birds

Since Ireland's Citizen Science Portal was launched, we have received more records of birds than any other taxonomic group. All validated records are loaded to the 'Birds of Ireland' dataset on Biodiversity Maps. There are over a quarter of a million observations in this database, and records yet to add. Having this large number of freely available bird records greatly improves our knowledge of bird distribution across the country. All of this data are also available for research, and to inform conservation management and planning decisions. The data are available to anyone who wants to find out more about what birds have been seen in their locality. We are extremely grateful to everyone who has contributed sightings to this database.

The National Biodiversity Data Centre has developed a new recording form to capture more detailed information on Ireland's rare and threatened birds. There are 60 breeding bird species on Ireland's Amber List and 38 on the Red List. We will work with local authorities to identify sites that contain important populations of rare breeding birds, with the intention of affording them greater protection. To do this, we are asking the public to submit sightings, with information on evidence of breeding, so that we are better able to assess breeding status in Ireland, and ultimately to identify important local sites that are currently afforded little protection.

The new recording form will allow more detailed information to be captured, such as evidence of breeding; a description of nest site; and for colonial nesters, an estimate of the number of breeding pairs; as well as details of the key features used to identify species.

The National Biodiversity Data Centre already operates a protocol of not disclosing precise location information on Ireland's threatened raptor species. This protocol will be extended for some of Ireland's rarest breeding birds.

We appreciate that many birdwatchers already submit sightings to other sighting schemes. We encourage everyone to continue to support these schemes, since this recording form is in no way intended to replace existing monitoring programmes. Data from the new recording form will be made available to support existing national initiatives to help conserve Ireland's breeding birds.

To explore species classified as rare and threatened, please see:

<https://birdwatchireland.ie/publications/birds-of-conservation-concern-in-ireland-bocci4-2020-2026/>

To submit rare breeding bird records, visit:

<https://records.biodiversityireland.ie/record/breedingbirds>



The data and mapping portal Biodiversity Maps (maps.biodiversityireland.ie) provides access to data on Ireland's biodiversity. As of 22nd April 2026 there are 9,234,359 records across 19,594 species in 208 datasets. Some recently updated datasets include:

eBIRD Bird Records for Ireland
New dataset! 2,049,945 new records

ObSERVE II Aerial Surveys for Seabirds and Cetaceans in the Irish Atlantic Margin
New dataset! 41,318 new records

Mammals of Ireland 2016-2025
147 new records

Local Biodiversity Action Fund (LBAF) Database
New dataset! 46 new records

Longhorn Beetles of Ireland
88 new records

Vascular plants: Online Atlas of Vascular Plants 2012 Onwards
7,971 new records

Citizen Science Beetle Records For Ireland
1,411 new records

General Biodiversity Records from Ireland
85 new records

Aras an Uachtaráin Biodiversity Audit 2019-2020
12 new records

Explore Your Shore
1,607 new records

Wasps of Ireland –
136 new records

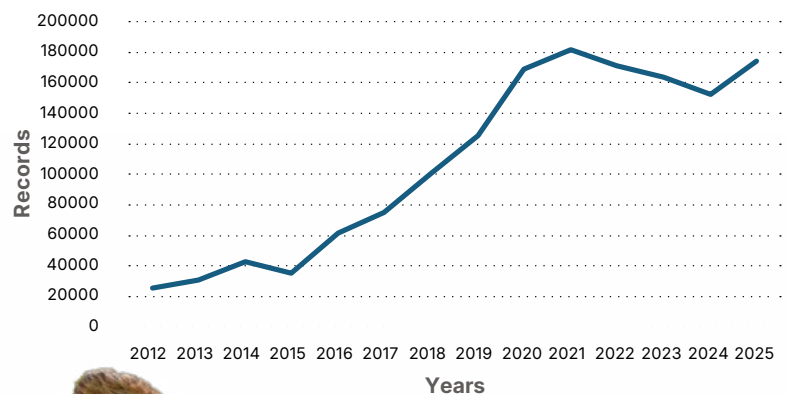
Farmer Moth Monitoring Programme
New Dataset! 8,880 records

Irish Fossil Brown Bear (*Ursus arctos*) Records
New Dataset! 33 records

Although the weather has been challenging for much of the first quarter of this year, there has been a good level of recording activity, with 29,270 records submitted. Unsurprisingly, birds take up most of the top 10 most recorded species between January and March. However, one major surprise is the number of Red Squirrel records submitted, which has no doubt been spurred on by the 2026 All-Ireland Squirrel and Pine Marten Survey, our latest partner survey.

Biodiversity recording in 2025 through Ireland's Citizen Science Portal

We had another great year of biological recording in 2025, with 173,873 records submitted through Ireland's Citizen Science Portal. This is an increase of more than 20,000 records when compared to the 2024 season, which was also a good year for recording. Records were submitted from 9,607 individual email addresses, the largest number since 2021, making it the second highest year for the number of recorders. Perhaps unsurprisingly, the 'Big Three' of our taxonomic groups have retained podium positions again in 2025. Fox took the top spot, followed by Red Admiral butterfly, and 7-spot Ladybird. Birds were the most heavily recorded group, with 40,067 records, while there were 39,696 moth records, and 34,743 flowering-plant records. Slightly surprising is that none of these major taxonomic groups are represented in the top three most-recorded species.



The fox was the most recorded species in 2025

Vascular Plants

As spring arrives, watching the new season's growth emerge is a delight. Most people recognise celandines and primroses, but here are some 'less-talked-about' plants that also herald spring and have their own interesting stories.

Goldilocks Buttercup (*Ranunculus auricomus*), at first glance, looks like a buttercup gone wrong, with its spindly upper leaves encircling the stem and its rather scruffy buttercup-gone-wrong flowers, often with too few petals. It flowers from April to June, in old damp woodlands and hedges, preferring limestone areas. In Ireland, it is commonest in the north and east, favouring undisturbed places with deep leaf litter. Its 'specific epithet' *auricomus* literally means 'golden hair', giving the plant its fairytale name, while *Ranunculus* means 'little frogs' – found in the same sorts of places as buttercups! Although this plant can be locally quite frequent, it's something you might easily overlook if you haven't seen it before.

Another early-flowering plant to look out for is the tiny, beautiful, Rue-leaved Saxifrage (*Saxifraga tridactylites*). This plant likes dry, open ground, especially limestone, so you'll see it at the Burren, as well as on sand dunes, but is also becoming common in urban habitats, on walls, pavements, and in car parks. It is native to Ireland, and its spread isn't problematic, indeed the Plant Atlas suggests this might be due to reduced sulphur dioxide in the atmosphere. Climate change may be helping it spread northwards, too. It has pretty, five-petalled blooms, hairy, (usually) three-lobed leaves, and often a reddish tinge to the foliage.

Blossoming plums and cherries (the genus *Prunus*) are integral to Ireland's early spring landscape, brightening up our hedgerows even on dark days. Like hawthorn and apple, they belong to the rose family (Rosaceae), but their fruit contains a single seed, a 'stone'. The first to flower is Cherry-plum, (*Prunus cerasifera*), as early as January. Introduced centuries ago from Asia and south-east Europe, it is occasionally naturalised and likely under-recorded in Ireland, so do look out for it. Its flowers have turned-back sepals and grow from green twigs, just before the leaves emerge; and unlike the native Blackthorn



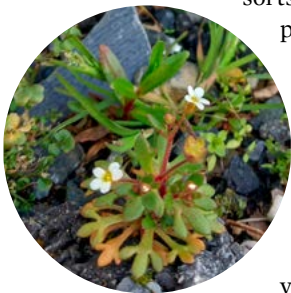
Bird Cherry, *Prunus padus*, Lough Gall, Armagh.
© John Faulkner All other images © Bridget Keehan

or Sloe (*Prunus spinosa*), which flowers slightly later on dark twigs, well before the leaves appear, it isn't thorny and rarely suckers. The climate rarely allows it to produce fruit, which is round, yellow or red, looking and tasting midway between a plum and a cherry.

The native Wild Cherry (*Prunus avium*) and Wild Plum (*Prunus domestica*) both flower in April, the flowers appearing at the same as the leaves. Wild Cherry is a small tree, its flowers in drooping clusters of (usually) three, again with turned-back sepals. The very similar, but introduced, Sour (Dwarf) Cherry (*Prunus cerasus*) has a more shrubby form, and has many cultivars, such as the delicious Morello Cherry. Wild Plum can be a shrub or small tree, and has shorter clusters of one to three less-drooping flowers. It comes in several forms, more easily distinguished in fruit: 'ssp. *domestica*' has underwhelming oval plums; while '*spp. insititia*' has smaller, delicious, darker-skinned fruit, either globular, with a hard, rounded stone (the Bullace) or drop-shaped, with a flattened stone (the Damson).

We also have the lovely, native Bird Cherry, *Prunus padus*, an elegant small tree with almond-scented white flowers in drooping clusters ('racemes'). The fruits, small, black and bitter, are enjoyed only by birds (and likely other wildlife!), hence the name. It's often planted, but in the wild is rare in Ireland, growing mainly in the northwest, where it favours woods and damp, rocky places.

To end on a cautionary note – the other *Prunus* commonly found in Ireland is the invasive, non-native Cherry Laurel (*Prunus laurocerasus*). Highly toxic and rapidly spreading, nothing can eat its leaves, and its dense, evergreen foliage inhibits the growth of all other plants. Yet it is widely planted as hedging, can be bought in any garden centre, and, where cuttings are dumped, it may sprout, colonise and spread.

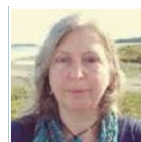


Rue-leaved Saxifrage, *Saxifraga tridactylites*, found at the edge of a car park in Sligo town.



Goldilocks Buttercup, *Ranunculus auricomus*, Co. Leitrim.

Cherry-plum, *Prunus cerasifera*



Bridget Keehan

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Karen Healy at the Bat Conservation Ireland stand at the NI Science Festival in Derry.

Bats

Despite bats hibernating, we didn't get much down-time this winter! After months of data analysis, we recently sent all the monitoring data to our statistician to see how bat populations fared in the summer of 2025. Míle buíochas to all volunteers who collected data through the Daubenton's, Woodlands, Brown Long-eared, Car-based and Lesser Horseshoe bat schemes in 2025. We couldn't have done it without you!

We held our 11th Irish Bat Conference at Queens University Belfast in March. We had our largest attendance and were delighted to host great keynote speakers. Christina Stanley, from the University of Chester, discussed the mysterious world of bat behaviour and social interaction, and Lothar Bach, a researcher from Germany, presented on work on offshore bats in the North and Baltic Seas. Other talks covered topics from the pest species eaten by bats in Ireland, to tagging Leisler's Bats to see where they fly to in autumn. We also had workshops on the use of drone thermal-imaging technology for bat surveys, new technologies to prevent wind turbine collisions, and biodiversity-friendly lighting. Congratulations to David Smyth, PhD student at Atlantic Technological University, who won the Vincent Weir Memorial Prize for best student presentation: 'Do Christmas Calories Count? Investigating the winter and spring diet of the Lesser Horseshoe bat'. *The book of abstracts from the conference can be seen here.*

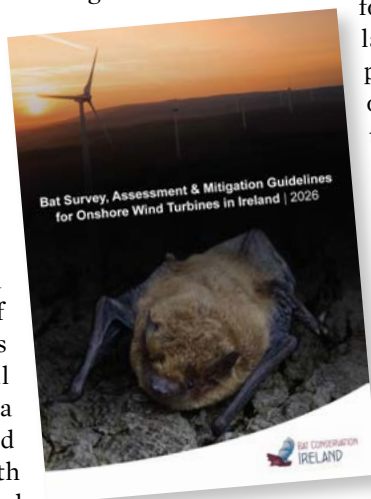
Bat Conservation Ireland wants to see a just transition to a low-carbon economy, but is also advocating that proper research, surveys, and follow-up monitoring needs to be carried out to protect bats from collisions with wind turbines. The latest research from Germany indicates that male bats can be attracted to wind turbines, where they 'sing' at the nacelle to attract prospective mates, thus risking fatal collision for themselves and/or their wannabe partners.

With this in mind, we have published survey guidelines for onshore wind turbines. We hope this will provide a best-practice framework for the Irish context: see batconservationireland.org

We have also been consulting, with our partners at Maréire, with the Department of Climate, Energy and the Environment with respect to Offshore Renewable Energy rollout. We don't know the extent to which bats fly offshore from Ireland, even though at least two species show massive migrations of over 1,500 km across mainland Europe, from summer to winter sites. Research into bats flying offshore around Ireland and implementation of good mitigation at wind turbines will be key to ensuring our offshore wind energy rollout doesn't become problematic for Irish bat populations.

Over winter, we also worked on a modelling project with the Vincent Wildlife Trust and Native Woodland Trust, with funding from the Irish Environmental Network. This work examined possible corridors for Lesser Horseshoe bats through the landscape – to help us link up sub-populations currently isolated from each other. We hope this work can feed into the Nature Restoration Law and Plan, as well as agri-environment schemes and local authority plans in the future.

In other projects, we have been working with the Bat Conservation Trust and RSPB in Northern Ireland on the Species Recovery Partnership Project. We have also secured funding to trial a school 'Bat Champions' project, a results-based scheme to help conserve bats on school grounds. And finally, we will be announcing our 2026 Small Grants Scheme to fund communities, researchers and individuals in work that promotes and conserves Irish bats.



Dr Niamh Roche

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Brown-long-eared bat

Butterflies

Taking stock

It is vital to monitor how nature is progressing and comparators are needed to track changes. This article selects butterfly species common to Britain and Ireland, compares their footprints, and comments on how their status reflects their habitats. The distribution data for both islands come from 2021, from the Red List of Butterflies in Great Britain and An Atlas of Butterflies in Ireland 2010-2021.

The health of woodland can be assessed using the distribution of the Silver-washed Fritillary, which likes open, sunlit, nectar-rich deciduous and mixed woodland. In Ireland, it occupies 41.4% of the 10 km squares, while in Britain it was found in 35%.

Since the 1990s, the Silver-washed Fritillary has expanded its Irish distribution, moving into new woodland developing naturally on abandoned land, such as cutover bogs and newly planted woods. The species is generally distributed throughout Ireland.

It is absent from Scotland, despite occurring nearby in Northern Ireland, such as in Ballycastle Forest, Antrim, a mere 29 km from the Scottish coast. It is very rare in north Wales, northern England, and areas in the midlands. Its strongholds are in south Wales and southern England. It is expanding its distribution in England, and was recently seen near Northumberland, after an absence of over 170 years. In Great Britain, some are released into woods far beyond its known range, by nature lovers who long to see it return.

Another woodland (and scrub and hedgerow) butterfly, the Speckled Wood, is also better distributed in Ireland: 86.7% of 10 km squares compared to 74.2% in Great Britain. The difference might be explained by scarcity of suitable habitats in south and central Scotland, where the butterfly is very scarce.

The Large White remains widely distributed, but is more abundant and widespread in Great Britain.



The Silver-washed Fritillary is thriving in Ireland, sustaining itself even in small woods.

The Wood White is a habitat specialist, restricted in Ireland to warm, open scrub and woods on exposed carboniferous limestone in Clare and Co.

Galway. Figures are comparable:

2.4% of Ireland's 10 km squares, 2.27% of Great Britain's, where its strongholds are now the woods of the west midlands, Northamptonshire, and the east Devon coastline.

Unfertilised wet grassland, heaths, fens, bog margins, limestone grassland, fixed sand dunes and machair are Marsh Fritillary haunts. It was recorded in 34.7% of Ireland's 10 km squares, compared to just 9.3% in Great Britain, where it has vanished from almost all of eastern Great Britain, indicating severe habitat loss.

The Large Heath, exclusive to bogs, occurs in 13.7% of 10 km squares in Great Britain (mostly north Wales and Scotland) and is represented in just 11.8% in Ireland, regarded as a stronghold for the butterfly. Has it declined in Ireland due to peatland loss or is it under-recorded?

Finally, a general countryside butterfly, the Large White is better distributed in Great Britain, at 81.17% compared with 73.2% in Ireland. This might reflect the greater growing of cabbages in gardens and allotments in Great Britain.

Butterflies tell us a great deal about the presence and quality of habitats. Habitats in good condition typically hold their butterflies. Where habitat diminishes, disappears, or quality declines, species are lost. For some widespread species, a simple measure, like growing breeding plants, is enough to look after them.

Butterflies tell us a great deal about the presence and quality of habitats.



Jesmond Harding

FOUNDER MEMBER AND
CONSERVATION OFFICER
Butterfly Conservation Ireland

Jesmond's book, *The Irish Butterfly Book*, is available in book shops and by email: jesmondmharding@gmail.com



Flower-rich limestone grassland and scrub provide a home for most of Ireland's butterfly species, including rarities.
All images © Jesmond Harding



Coleophora potentillae
© Dave Allen



Coleophora violacea on hazel at Gortlecka
Images © Andy Banthorpe unless stated



Leucoptera orobi on bitter vetch at Abbey Hill,
the Burren

Moths

Autumn holds a special place in my heart. It always excites the ‘birder’ in me, as it is the classic time for rare vagrants to arrive, but for the last decade or more, in my mind, this is THE time to get out and search for leaf-mining and case-bearing Lepidoptera.

There are three main groups of leaf-mining moths, Nepticulids, Gracillariids, and Coleophoras (case-bearers). The adult moths are all inevitably small, and within each family, many are virtually identical, requiring dissection or DNA-barcoding to get a definitive identification. But the mines or cases, in association with their food plants, allow the identification to species of a high percentage of these otherwise ‘impossible’ families.

In the 1970s, when the first volumes of *The Moths of Great Britain and Ireland* were being drafted, there were so few Irish records of leaf-miners that the eminent lepidopterist Lieutenant Colonel Arthur Maitland Emmet, with other mothing luminaries including John Rendle Langmaid, headed to Ireland on a number of excursions to ‘put dots on maps’. Inevitably, they found many ‘firsts’, and an array of apparently-rare species. In fact, we are only now just re-finding some of their discoveries. For a few decades, only Ken Bond was studying leaf-miners in Ireland, but interest has increased, assisted by websites and targeted social media. We are now collecting records from all corners of Ireland through a slowly-increasing number of serious enthusiasts.

It is no surprise that, when visiting Ireland, Maitland-Emmet and Langmaid headed for the Burren, given its growing status amongst lepidopterists. So, in 2024 and 2025, through the National Parks and Wildlife Service grants for small recording projects, I organised leaf-mining excursions to search for some of the rarely-recorded Burren specialities, a number of which have been rarely recorded, if at all, since Maitland-Emmet and Langmaid’s visits. As well as involving ‘locals’, Rachel McKenna and Jamie O’Neill, a few other Irish *moth-ers* were invited, but critically, two highly-experienced specialists, Andy and Melissa Banthorpe, were brought over from England to help mentor us in the field.

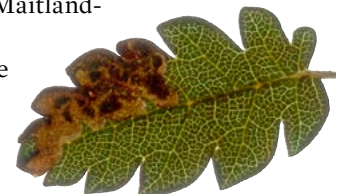
In 2024, we discovered two species new to Ireland. In fact, both were found by Eamonn O’Donnell. *Stigmella prunetorum* mines were initially found at Gortlecka, where it was common, and sparse at Cooiloorta. Given the amount of recording effort at Gortlecka, it was a real surprise to see how frequently it occurred on blackthorn. The other new species was *Parectopa ononidis*, with a single tiny mine on red clover. More were found in 2025. The rarely-recorded *Stigmella dryadella* turned out to be well distributed on its sole food plant, mountain avens. The use of DNA barcoding confirmed the presence of the cryptic *Stigmella auromarginella*, the mines of which are indistinguishable from the abundant *S. aurella*, both feeding on bramble species. This is another species previously recorded by Maitland-Emmet.



Stigmella prunetorum
at Gortlecka



Stigmella dryadella
mine



Stigmella dryadella
© Melissa Banthorpe

The 2025 trip concentrated on the north and western Burren. One of the highlights was the rediscovery of *Leucoptera orobi* (mines were mainly on bitter vetch), which was previously only recorded in 1971 and 1974, again by the peerless Maitland-Emmet. We actually found it in a number of locations after the initial find by Andy. A bewildering array of *Coleophora* cases included the second Irish record of *C. violacea*, frequent *C. potentillae* (both on bramble spp.) and both *C. vigaureae* and the rarer *C. ramosella* on goldenrod.

There were many other important discoveries, including major range extensions for a number of Lepidoptera species, confirming how important and truly unique the Burren is. We truly felt that by following in the footsteps of Maitland-Emmet and Langmaid, we were ‘standing on the shoulders of giants’.



Dave Allen

MOTHSIRELAND
www.mothsireland.com



Willow Warbler, *Phylloscopus trochilus*
© Michael Finn

Birds

The winter of 2025-26 was one of the wettest and mildest on record, but do meteorological records mean anything to our winter bird community? This is not an easy question to answer. Extensive flooded fields may have been enjoyed by some of our waterbirds (swans, dabbling ducks, and some waders), but did not suit our ground-foraging passerines. During the last six months, Fota Wildlife Park and the poultry industry have been in avian influenza lockdown, but impacts on wild birds have been sporadic. Some Whooper Swans probably died in autumn on the Wicklow coastal marshes, and in March, at least 20 Mute Swans were confirmed as HPAI casualties at Loughaderra Lake in east Cork. We will soon know if the virus re-emerges as a threat at our internationally important seabird colonies.

The winter constant-effort bird-ringing project at the East Coast Nature Reserve (Newcastle, Co. Wicklow) saw rather unremarkable capture totals for most species, but it was perhaps our best season for Goldfinches, which often outnumbered Blue Tits. The occasional session had to be postponed because the entire reserve was under water! For me, the Winter Garden Bird Survey was also fairly 'quiet'. Regular numbers of Blue Tits, Great Tits, and Chaffinches were low, and it was the first year in over 20 that I failed to record Redwing and Fieldfare over the 13-week period. However, Coal Tits were abundant, and I recorded an instance of a Kestrel hunting passerines in garden hedges in a very Sparrowhawk-like manner. The winter thrushes were virtually absent all winter in my local pasture fields and hawthorn hedges in Wicklow, while a family in south Carlow also noted their near-absence.

The best-practice advice is to cease feeding in the warmer months

Over the last couple of months, there has been a lot of discussion on social media about the alleged 'harm' to garden bird populations as a result of food provisioning. Yes, that means you filling your peanut and sunflower feeders in your garden. In the UK,

a Technical Steering Group, which included the Royal Society for the Protection of Birds, British Trust for Ornithology, and the Institute of Zoology, reviewed impacts of 'provisioning' through changes in survival rates, avian community composition, and disease transmission. On balance, the most compelling evidence was the role of feeding in disease transmission, notably of finch *trichomonosis*, a parasite which has recently devastated our Greenfinch population. The best-practice advice

is to cease feeding in the warmer months, defined as May through October, and outside this, to clean feeders regularly and move them periodically. If you provide water, then change it daily, and clean and dry bowls and troughs weekly. I will endeavour to remind readers about this in the next issue, when we start to think about restocking bird feeders as colder weather approaches.

My local Willow Warblers returned from Africa on April 2nd, so spring has definitely sprung. A colleague, based in Co Clare, reported her first Cuckoo on April 16th. Get out early and enjoy the dawn chorus wherever you are!



Dr Steve Newton

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The National Biodiversity Data Centre continues to improve our knowledge of intertidal and coastal marine biodiversity thanks to the growing success of Explore Your Shore! With an impressive 34,291 records, covering 888 species across 2,630 coastal sites, this citizen science initiative is not only mapping biodiversity, but improving public awareness of marine biodiversity and the need to protect it.

The dataset itself continues to grow in quality as well as scale. A recent update saw 94 validated polychaete (marine worm) records added, which is no mean feat given the complexity of this taxonomic group. These validations, by Dr Jamie Maxwell of the Natural History Museum, highlight the importance of expert collaboration in adding value to citizen science data.

Explore Your Shore! is also contributing to international conversations. In February, our Marine Biodiversity Programme Manager, Dave Wall, was invited to present at the CS-MACH1 Marine Citizen Science data network workshop in Ostend, Belgium, exploring how to overcome barriers in marine citizen science data flow. This engagement will help to ensure that Irish data feed into broader European efforts to make biodiversity data more accessible and impactful.

Training and community-building remain central to the project's ethos. Following a successful 'Train the Trainer' event in Galway in September, our colleagues from Clean Coasts delivered their own Explore Your Shore! training session at Greystones, Co. Wicklow. A further 'Train the Trainer' session was held in November for staff at the Dingle Aquarium. There are plenty of training events planned in the coming year, many run by our Explore Your Shore! Partner Hubs in Kerry, Galway, and Donegal. Please keep an eye on our events page for details.

Explore Your Shore! data continues to contribute to scientific outcomes. A new checklist of Ireland's marine molluscs, compiled by Julia D. Nunn, draws on Explore Your Shore! records alongside wider biodiversity datasets. Documenting 940 species, this checklist is a vital tool for researchers and recorders alike. Meanwhile, Explore Your Shore! oyster records are supporting Trinity College Dublin in assessing reef ecosystems using the SEEA Ecosystem Accounting framework.



Butterfly Blenny, *Blennius ocellaris*, Girl Arlene wreck dive site, Co. Wexford, July, 2025 © Eabha Hughes

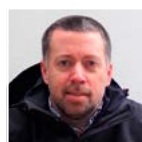
Yet, as always, the most exciting aspect of Explore Your Shore! is the sense of discovery it generates. Recent exciting records include a Long-snouted Seahorse found in Co. Cork - the first confirmed Irish sighting since 1990 - and a Flying Gurnard spotted in Co. Sligo, far from its usual southern range. Other notable finds, from tiny Wart Barnacles to the elusive Butterfly Blenny, remind us that every shoreline visit holds the potential for something extraordinary.



Long-snouted Seahorse, *Hippocampus guttulatus*, Ballynamona Strand, Co. Cork, Feb, 2026 © Rita Mahon

These discoveries are a testament to the dedication of Explore Your Shore! volunteers across Ireland. Whether you are a seasoned naturalist or first-time explorer, your contributions will help to build a clearer picture of our marine biodiversity, one record at a time.

If you haven't tried Explore Your Shore!, please visit our website to start your marine biodiversity recording journey: <https://exploreyourshore.ie/>



Dave Wall

MARINE BIODIVERSITY PROGRAMME MANAGER
National Biodiversity Data Centre



Flying Gurnard, *Dactylopterus volitans*, Mullaghmore, Co. Sligo, Aug, 2025 © Sam Moran

Cetaceans, turtles and basking sharks

Sightings

During the six-month period October 1st 2025 to March 31st 2026, the Irish Whale and Dolphin Group (IWDG) Sighting Scheme validated a total of 794 cetacean and Basking Shark records from all Irish waters, comprising nine species. This represents a 6% increase on the same period in 2024/5.

The season passed pretty much as expected, with no big surprises in terms of species mix over the period, which incorporated the tail end of the Basking Shark season as well as the first of this year's early sharks. Although not as busy in terms of Basking Shark sightings as the record 2024 season (358), 2025 produced 187 validated records, making it the fourth busiest shark season to date.

The trend in our large whales showing in the north-west, if anything, solidified in 2025, with 52% of Humpback sightings coming from the Donegal Bay area. Monitoring using photo identification suggests that a high proportion of these are individuals that once visited the south-west hotspots of west Cork and Kerry. We ended the 2025 Humpback season with a tally of 14 individuals photo-identified, of which 10 were known to us and four were animals not previously documented in Irish waters. These were added to the Irish Humpback catalogue, which now stands at 140 individuals. At the time of writing, it is peak breeding season in the Cabo Verde, and it shouldn't be long now before we record our first hungry early-arrivers. Some will have, almost certainly, departed the breeding grounds and are on their northbound passage to higher-latitude feeding areas.

What was likely the most significant sighting of this period was, however, a long way from Irish waters. On November 19th, 2025, the Center for Coastal Studies (CCS) Right Whale Ecology Program was conducting their second aerial survey of the 2025-2026 season,



Common Dolphin © Pádraig Whooley

in Massachusetts Bay. While photographing a group of Humpbacks around 43 km east of Boston, a lone North Atlantic Right Whale (NARW) was observed surface-feeding nearby. This was their first NARW sighting of the season and the plane diverted to photo-document the whale.

As there was no record of this individual in the CCS catalogue, they reached out to colleagues at the New England Aquarium, who have been studying NARW for more than 40 years, and curate the NARW Catalogue. This whale did not match any recorded off the eastern seaboard of the US, but on further investigation, they recalled the Donegal Bay Right Whale from July 2024, which featured as the cover story of this publication, Issue 27, Autumn/Winter 2024, and they found their match! This is the first ever NARW photo-ID match originating from Ireland or any Eastern Atlantic waters to the threatened Western Atlantic population – a truly remarkable match.

Although not a new development, early Winter 2025 stands out as a period when the IWDG received consistent reports of Common Dolphins, a typically pelagic (open-water) species, from river systems along the south coast. This was not an isolated incident, as there were often prolonged periods when we received images of Common Dolphins in small foraging groups from the River Bandon at Kinsale; River Lee in Cork Harbour; and both the River Barrow and Suir, Co. Waterford. This activity wasn't restricted to the south coast, as we received multiple sighting reports of the same species in the River Shannon, towards Limerick City, and beyond the Peace Bridge in the River Foyle, Derry. It will be interesting to see if this is repeated in 2026.



The young female Narwhal, stranded in Co. Donegal on November 14th 2025. © Alena Kunkel, IWDG Stranding Network Volunteer

Strandings

During the same period, the IWDG Stranding Scheme validated a total of 230 records of stranded cetaceans and sea turtles on the island of Ireland. This represents a 41% increase compared to this time period last year (163). This significant increase is primarily due to the lack of a stranding peak in 2025, which normally occurs in January, February, and March, the reason for which remains unknown.

The stranding report that stood out the most during this time period was that of a small whale reported to the IWDG on November 14th 2025, at Sweet Nellies beach, the Inishowen Peninsula, Co. Donegal. The animal was initially reported as a Pilot Whale, though there were no images available at the time. The following day, a single image was received, and it was clear the animal was not a Pilot Whale. It was unclear if the dorsal fin was naturally absent or if it had been cut/scavenged.

A request was subsequently made to the IWDG's Volunteer Stranding Network to collect detailed images of the animal, to which volunteers swiftly responded. The resulting images confirmed the lack of both a dorsal fin and teeth, which allowed the IWDG to identify the whale as a young female Narwhal, *Monodon monoceros*! This is the first confirmed record of this species in Ireland, alive or dead, its normal distribution being in the Atlantic and Russian sectors of the Arctic Ocean, predominantly within the Canadian Arctic Archipelago, Baffin Bay, and Greenland.

The National Parks and Wildlife Service (NPWS) secured the carcass for the IWDG, who delivered it to the Cork Regional Veterinary Lab, where a postmortem examination was carried out, funded by the NPWS.

This event highlights the importance of national stranding schemes in documenting rare and unusual strandings. It demonstrates the essential role of volunteer networks in confirming species identification, and enabling rapid response, alongside the strength of collaboration among the public, government agencies, universities, and conservation organisations. Together, these coordinated efforts support timely response and comprehensive scientific investigation, advancing our collective knowledge of elusive marine species.

Please report all alive or dead cetacean strandings to the IWDG. The IWDG, with support from the NPWS, maintain the official database of stranded cetaceans and sea turtles in Ireland. This is one of the longest-running stranding schemes in Europe, and allows us to monitor and highlight any unusual events or trends.



Pádraig Whooley

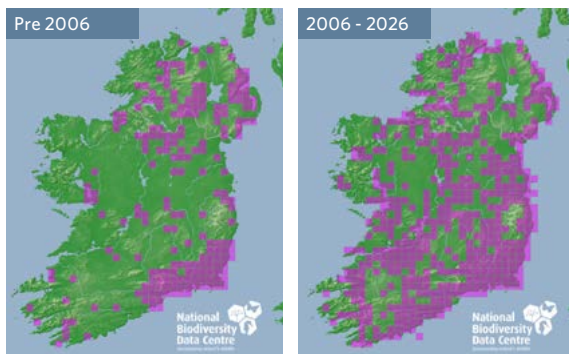
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Winter Heliotrope and records



Invasive species

During the winter months, there is a noticeable shift in invasive species reports from predominantly plant sightings to a greater focus on animal observations. This trend aligns with expectations, as many of the most frequently reported invasive plants, such as the widespread knotweeds, giant hogweed, and Himalayan balsam, die back during winter, leaving fewer visible signs of their summer prevalence.

An exception to this pattern is the Winter Heliotrope, which has been present in Ireland since at least the 19th century. This plant blooms with strongly scented flowers during winter, and is often found in disturbed environments, such as road verges, riversides, shaded areas, and wasteland. In Ireland, only male specimens are recorded, but their ability to spread vegetatively has contributed to an expanding presence across the country, where it dominates at some sites.

New Zealand Flatworm © Andrew Holmes

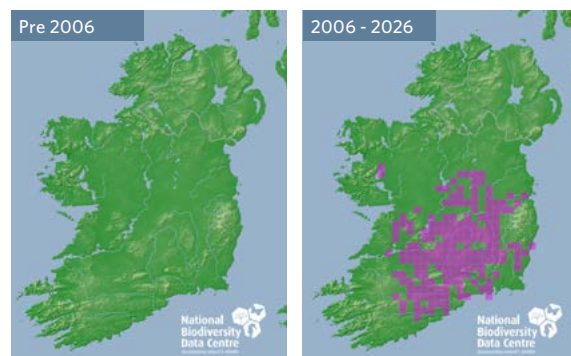


A species leading invasive animal sighting submissions over winter and into spring is the New Zealand Flatworm. This unsegmented, dark, with beige mottled edges, sticky flatworm was first reported here in 1963. The majority of initial sightings were found in gardens, garden centres, and greenhouses, indicating the most likely source of introduction as contaminants of ornamental plants. Gardens remain the most commonly reported habitat, but they are also known from agricultural land.

As they are a voracious predator of earthworms and can be difficult to eradicate, great care should be taken to check potted plants, growing media, and even topsoil for the flatworm, and its small, black, shiny eggs, before using the product or sharing with others.

Second in number of invasive animal sighting submissions since the start of 2026, and exhibiting a remarkable expansion since it was first reported in Ireland in 2008, is the Greater White-toothed Shrew. While it is not known how it was introduced to Ireland, its varied invertebrate diet, and ability to produce several litters a year, contribute to its ease of establishment. McDevitt *et al.* (2014), estimated it had a rate of expansion of 0.5-14.1 km/year depending on landscape characteristics. Studies have shown that it has a negative impact on the abundance of Wood Mouse and the occurrence of the Pygmy Shrew, though the mechanism is unclear (Montgomery *et al.*, 2012). At sites where Greater White-toothed Shrew is established, Pygmy Shrew is completely absent. It appears to have a positive impact on the occurrence of the non-native Bank Vole, which may contribute to the effects on the other two species.

Greater White-toothed Shrew and records



Continued vigilance and reporting of invasive species sightings is very welcome as the data build a better understanding of their presence in Ireland. For more information on invasive species and for guidance on reporting your sightings, visit invasives.ie



Colette O'Flynn

INVASIVE SPECIES OFFICER
National Biodiversity Data Centre



An tIonad Náisiúnta
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Officer



Oisín Duffy

Surveys and
Records Officer



Irene Kilbride

Office and Corporate
Support Officer



Dave Wall

Marine Biodiversity
Programme Manager



Patrick Fitzmaurice

Pollinator Plan
Farmland Officer



Emma King

Pollinator Plan Local Authorities
and Public Bodies Officer

The Centre recently welcomed three new staff members, who have joined the Digital Services team:



**Aaron Skehan,
Local Authority
Data Liaison
Officer,**

is responsible for improving the flow of biodiversity data between the Centre and local authorities, to contribute to decision-making.



**Ritchie Hindley,
ICT Systems
Administrator,**

has responsibility for development and management of the ICT systems that underpin the business needs of the Centre.



**Erano Elmido,
GIS Officer,**

has responsibility for implementing, developing, and administering the Centre's GIS and data integration/workflow platforms.

Training events and workshops

The National Biodiversity Data Centre's expert-led training events support both beginner and experienced recorders, helping you identify species, collect high-quality records, and follow best-practice standards that support wildlife conservation. We offer hands-on workshops across Ireland, along with flexible online training. Our free, self-paced courses on the National Biodiversity Learning Platform are available to explore at learn.biodiversityireland.ie. More workshops, webinars, and events will be added throughout the year. See tickettailor.com/events/nationalbiodiversitydatacentre.

Identifying leafcutter and nomad bees

📅 6 June 10:00 - 15:00

📍 **Abbeyleix Heritage House, Abbeyleix, Co. Laois**

👤 **Leader: Owen Beckett**

Learn about their life cycle, habitats, and the features to look for when identifying and recording different species. After the indoor session, we will travel a short distance to Abbeyleix Bog (weather permitting) where you can test your new identification skills with expert support.



Introduction to Irish Vegetation Classification

📅 26 June 10:00 - 15:00

📍 **Knocksink Wood Education Centre, Co. Wicklow**

👤 **Leader: Philip Perrin**

A dynamic, community-level scheme for describing and mapping Irish semi-natural vegetation. We will cover the structure and scope of the classification, examples of communities from different habitats, and the resources available to practitioners, including the online ERICA application.



Monitoring and identifying butterflies - for beginners

📅 11 July 10:00 - 15:00

📍 **Bog of Allen Nature Centre, Lullymore, Rathangan, Co. Kildare**

👤 **Leader: Jesmond Harding**

This workshop will begin with background on butterfly biology and the key features to identify different species. Weather permitting, we will then head outdoors for guided fieldwork where you will try out identification keys and practice monitoring skills.



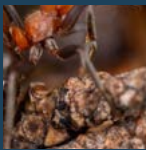
Identifying ants - for beginners

📅 8 August 10:00 - 15:00

📍 **Kilcoran Lodge, Cahir, Co. Tipperary**

👤 **Leader: John Breen**

Join John Breen to learn about the life cycle of ants, the different habitats where they are found, and the features to look for when identifying and recording different species. In the afternoon, we will head to nearby woodland to see examples of ants and test your new identification skills. The session will be relaxed and hands-on, and it is designed to build your confidence in spotting and recording different ants.



Plant field day: Peatland Habitat

📅 15 August 10:00 - 15:00

📍 **Cloncrow Bog, Co. Westmeath**

👤 **Leader: George Smith**

This practical, hands-on session will focus on identifying a wide range of plant groups characteristic of peatlands, including mosses (*Sphagnum*). With expert guidance, you will develop a richer understanding of peatland ecology, and use keys to identify features of both common and specialist bog species. This field day is well suited to ecologists and nature recorders looking to gain practical field experience.



Identifying trees in summer - for beginners

📅 5 September 10:00 - 15:00

📍 **National Biodiversity Data Centre, Co. Waterford**

👤 **Leader: Oisín Duffy**

You will learn how to identify trees and shrubs during the summer months by focusing on key features such as leaves, bark, buds, flowers, growth form and overall character. After an introductory session, you will take part in guided fieldwork, where you can test your skills and compare species with support from the workshop leader.



Check, Clean, Dry: practical biosecurity for waterway users

📅 12 September 10:00 - 15:00

📍 **ATU Sligo, Co. Sligo**

👤 **Leader: Chantel Carr**

Invasive species are commonly spread via contaminated gear, boats, footwear, and clothing. You will learn how to identify key invasive species, as well as simple 'Check, Clean, Dry' habits that can make a real difference in protecting the waterways. This workshop is for anglers, paddlers and boat users, outdoor instructors, coaches, community volunteers and Environmental and Biodiversity Officers.



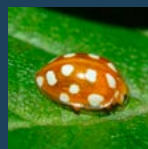
Monitoring and identifying ladybirds

📅 19 September 10:00 - 15:00

📍 **Birr Castle Demesne, Birr, Co. Offaly**

👤 **Leader: Owen Beckett**

This workshop will introduce you to some of Ireland's 38 ladybird species. Learn about their life cycles, the types of habitats in which they can be found, and what features to look out for when identifying and recording. Weather permitting, we will head outdoors where you will try identification keys, and practice monitoring skills with support. This workshop is designed to build your confidence in spotting and recording ladybirds.



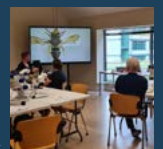
Identifying insects using microscopes: advanced skills

📅 4 October 10:00 - 15:00

📍 **National Biodiversity Data Centre, Co. Waterford**

👤 **Leader: Jesmond Harding**

This advanced workshop offers an opportunity to explore your own specimens under a microscope with guidance from experienced entomologists. You will learn how to prepare and observe specimens to identify more-complex insect taxa. There will be demonstrations on: how to pin specimens; learn to use microscopes for high-precision observation; and practical insights into identifying complex insect taxa.



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Sonraí Bithéagsúlachta
National Biodiversity
Data Centre



An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreacht
Department of Housing,
Local Government and Heritage



An Chomhairle Oidhreacht
The Heritage Council