

# Biodiversity

## IRELAND

ISSUE 23 | AUTUMN / WINTER 2022

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# National Biodiversity Data Centre

A Heritage Council Programme



## Biodiversity Ireland Issue 23 Autumn/Winter 2022

*Biodiversity Ireland* is published by the National Biodiversity Data Centre. Enquiries should be sent to the editor, Juanita Browne, [editor@biodiversityireland.ie](mailto:editor@biodiversityireland.ie)

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### Advisory Board

The Heritage Council has established a high-level Advisory Board to provide strategic input to the delivery of the Data Centre's work programme:

Rachel Kenny	Chair of Board & Director of Planning, An Bord Pleanála
Bernadette Guest	Heritage Officer, Waterford City and County Council
Dr Matthew Jebb	Director, National Botanic Gardens
Dr. Micheál Lehane	Director, Environmental Protection Agency
Dr Peter McLoughlin	Head of School of Science and Computing Department, Waterford Institute of Technology
Paola Viscardi	Deputy Keeper, National Museum of Ireland – Natural History Division
Ted Massey	Department of Agriculture, Food and the Marine
Andy Bleasdale	Director, National Parks and Wildlife Service
Declan Quigley	Senior Port Office, Sea Fisheries Protection Authority
Virginia Teehan	Chief Executive, The Heritage Council

The National Biodiversity Data Centre is a programme of the Heritage Council and is operated under a service level agreement by Compass Informatics. The Biodiversity Data Centre is funded by the Department of Housing, Local Government and Heritage.

*Chrysis impressa*  
Edward Phillips /  
Alamy Stock Photo



# The National Biodiversity Data Centre

Ireland's biodiversity is under threat. Like elsewhere in the world, biodiversity loss is depriving future generations of its intrinsic and monetary value. International conventions, nature protection legislation and national initiatives have been supported by the Irish government to address biodiversity loss and improve the quality of life of its citizens. The National Biodiversity Data Centre is one such initiative.

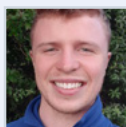
In order to conserve Ireland's biodiversity, we need to document what biodiversity we have, understand how it is distributed across the island of Ireland and its

marine waters, track how it is changing over time, and communicate the importance of conserving biodiversity.

Addressing these knowledge gaps and building the scientific evidence base to help its conservation is central to the work of the National Biodiversity Data Centre. Find out more about what we do from the publication: *Introducing the National Biodiversity Data Centre*

[https://biodiversityireland.ie/aboutthecentre\\_pdf](https://biodiversityireland.ie/aboutthecentre_pdf)

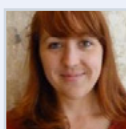
## The Staff of the National Biodiversity Data Centre



### Owen Beckett,

*Research Officer*, has responsibility for the identification of insects as part of the Protecting Farmland Pollinators EIP Project. He is also using his specialist expertise to

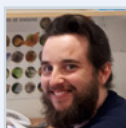
assist with the validation of wasp records submitted to the Data Centre.



### Kate Chandler,

*Pollinator Plan Communities and Engagement Officer*, has responsibility for engagement with local communities to support and coordinate community

actions for pollinators. This post is funded by The National Parks and Wildlife Service.



### Oisín Duffy,

*Surveys and Records Officer*, has responsibility for the management of Ireland's Citizen Science Portal and the data validation processes with partners. He provides active support to the recording network to improve the quality and quantity of data submitted.



### Dr. Úna Fitzpatrick,

*Senior Ecologist*, is responsible for the development of, and oversees delivery of, the All-Ireland Pollinator Plan, and is responsible for the plant and vegetation

work programmes of the Data Centre. This includes management of the National Vegetation Database and contributing to development of the Irish Vegetation Classification System.



### Dr. Michelle Judge,

*Data Manager and GBIF Node Manager*, has responsibility for maintaining the National Biodiversity Database and publishing biodiversity data

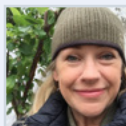
through Biodiversity Maps. In addition, she looks after the National Biodiversity Indicators and the data analysis for the Irish Butterfly Monitoring Scheme.



### Dr Saorla Kavanagh

is the Project Manager of the Protecting Farmland Pollinators project which seeks to test evidence-based actions to make farmland more pollinator-friendly.

This is a five-year project funded under the European Innovative Partnership programme.



### Sarah Kelly,

*Agri-business Officer*, is working on supporting Origin Green Companies to deliver biodiversity measures to support implementation of the All-Ireland Pollinator Plan. This post is supported by Bord Bia.



### Dr. Michelle Larkin

Is responsible for managing the National Pollinator Monitoring Scheme. This pilot project aims to develop a robust national monitoring framework that will

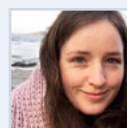
collect data on the distribution, conservation status and trends of insect pollinators across Ireland. This project is funded by the NPWS, and the Department of Agriculture, Food and the Marine.



### Dr Liam Lysaght,

*Centre Director*, is responsible for setting the strategic direction of the Data Centre, overall management of the operations and work programme, and

building of partnerships with other organisations. He is an active recorder and helps with the delivery of the Data Centre's work programme on butterflies, birds and mammals. He also serves as Head of Delegation for Ireland to the Global Biodiversity Information Facility (GBIF).



### Martina O'Brien,

*Invasive Species Engagement Officer*, has responsibility for engaging with different sectors to coordinate actions that address the threat posed by Invasive

Alien Species. The role is to support NPWS in implementing and reporting on delivery of the EU Regulations on Invasive Alien Species in Ireland. This post is funded by The National Parks and Wildlife Service.



### Colette O'Flynn,

*Invasive Species Officer*, is responsible for the Invasive Species work programmes of the Data Centre. She manages the National Invasive Species

Database, provides coordination of invasive species data and information, and contributes advice and policy support at the national and European level.



### Niamh Phelan,

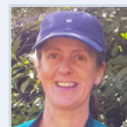
*Administrative and Engagement Officer*, is responsible for day-to-day office management at the Centre and spearheading the Centre's engagement and outreach programme.



### Dave Wall,

*Citizen Science Officer*, is responsible for the Explore Your Shore! and Dragonfly Ireland 2019-2024 citizen science projects. He also takes the lead on

developing the Data Centre's work programme on citizen science and all marine biodiversity activities.



### Ruth Wilson

*Farmland Pollinator Officer*, is responsible for implementing actions in the All-Ireland Pollinator Plan that relate to making farmland more pollinator

friendly. The post is supported by the Department of Agriculture, Food and the Marine.

# Director's Comment



In May 2019, Ireland declared a Climate and Biodiversity Emergency, the second country in the world to do so. Biodiversity was 'bolted' onto the endorsement by Dáil Éireann of the impressive report of the Joint Oireachtas Committee

on Climate Action. Some viewed this declaration as an important symbolic, but largely empty, gesture by legislators. With the benefit of hindsight, it can be considered a watershed moment in terms of political consciousness of the biodiversity crisis Ireland is experiencing.

The Convention on Biological Diversity was ratified by Ireland in 1996, but for many years there was little evidence that ratification of the Convention was little other than a reporting exercise. The declaration by Dáil Éireann of the Climate and Biodiversity Emergency meant that the term 'biodiversity' entered the lexicon of political vocabulary and is now used regularly in debates in the Houses of the Oireachtas on a range of issues.

It is worth highlighting some of the new developments since then. Biodiversity policy entered centre stage as part of the Programme for Government agreed in 2020. In addition to the appointment of a deeply knowledgeable and committed Minister of State for Heritage and Electoral Reform in Malcolm Noonan, Ireland now has Pippa Hackett as Minister of State for Land Use and Biodiversity within the Department of Agriculture, Food and the Marine. Our Taoiseach, Micheál Martin

is increasingly highlighting, through his words and actions, his concern about biodiversity loss, proving that biodiversity is now firmly on the Government's agenda.

The establishment of a Citizens' Assembly on Biodiversity Loss to report and make recommendations to the Houses of the Oireachtas before the end of the year is hugely significant. Similarly, the Children and Young People's Assembly on Biodiversity Loss has been established and will make recommendations for consideration by Minister of State, Malcolm Noonan. These developments are being keenly observed by many countries in different parts of the world.

Government policy on biodiversity is currently being developed through the 4th National Biodiversity Action Plan, a process that is driven by far greater energy than heretofore and should translate the Government's concern into a comprehensive series of actions. This is all being done against a backdrop of reorganisation of the National Parks and Wildlife Service to make it more fit for purpose to meet the present-day challenges, and a greatly improved budget allocated to biodiversity to help deliver more actions on the ground to support biodiversity conservation.

By any standards, this is huge progress and credit should be given for what has been achieved. But the scale of biodiversity loss is so acute, it can only be halted and reversed through transformative change. There is no evidence yet that this re-energised policy platform will deliver the transformative change that is needed. This level of policy ambition needs to be maintained and to grow over the years ahead.

## Liam Lysaght elected Chair of GBIF Governing Board

Liam Lysaght has been elected Chair of the Global Biodiversity Information Facility's Governing Board. GBIF is an international network and data infrastructure, funded by the world's governments and aimed at providing anyone, anywhere, open access to data about all types of life on Earth. It has 106 international partners drawn from 64 countries.

Liam takes over the role from Dr Tanya Abrahamse of South Africa, who concluded her five-year term at GB29. During the Brussels meeting, Liam said: "The global biodiversity crisis provides a strong rationale and really, a moral imperative for GBIF, and we need to bring

that to the forefront of the work we do across the network." He asserted that GBIF is in a strong position due to the quality, clarity and strategic nature of the work performed by the Secretariat and network staff.

"Liam is an ideal

choice to chair the Governing Board at this phase in GBIF's mission," said Abrahamse. "With skills and experience across all areas of our value chain, and considerable negotiation and community consultation involvement, he will inject a sense of urgency into our drive to understand global risks from the existential threats of climate change and biodiversity loss." It is a great honour for Liam and Ireland to be entrusted with this important role, and we wish him well in this exciting new role.



GBIF Governing Board chairs past, Tanya Abrahamse (left), and present, Liam Lysaght © Maheva Bagard Laursen

# Two new websites to tackle Invasive Alien Species

During Invasive Species Week 2022, the National Biodiversity Data Centre and Northern Ireland Environment Agency jointly launched two new websites – [www.invasives.ie](http://www.invasives.ie) and [www.invasivespeciesni.co.uk](http://www.invasivespeciesni.co.uk) – which were designed to provide information, resources and guidance on Invasive Alien Species (IAS).



These sites cover invasive species already present in Ireland and Northern Ireland, as well as new arrivals (through species alerts), and those species which may arrive in the near future.

While each website is targeted at their distinct jurisdiction, they do share

key features, including information on legislation and policy; identification guides for common species; guidance on how to manage and address IAS; and

‘Species Alerts’, where users are alerted to the arrival of high-risk species. Other functions of the websites include a ‘Report Sightings’ form, where the public and stakeholders can submit their own suspected sightings. This feature is an important mechanism to facilitate early detection of invasive species and rapid response. The websites also provide links to species maps showing the distribution of IAS in Ireland and Northern Ireland (hosted by the National Biodiversity Data Centre and CEDaR/iRecord respectively). The websites will facilitate information sharing, not just between Ireland and Northern Ireland but across all eight administrations of the British Irish Council, an institution established to provide a forum for consultation and cooperation on key work sectors (covering Ireland, Northern Ireland, Scotland, Wales, UK, Isle of Man, Guernsey, and Jersey).

Speaking about the launch, Invasive Species Officers, Martina O’Brien and Colette O’Flynn said: ‘In recognition of the need to provide a centralised portal to information and distribution data on invasive species in Ireland, the National Biodiversity Data Centre are delighted to launch [invasives.ie](http://invasives.ie). Considering the shared threats to the island of Ireland from invasive species, we will continue to work closely with the NIEA on information sharing.’ View the two new websites at: [www.invasives.ie](http://www.invasives.ie) and [www.invasivespeciesni.co.uk](http://www.invasivespeciesni.co.uk)

# Updated MothsIreland dataset becomes largest on Biodiversity Maps

The MothsIreland dataset has been recently updated and now contains just over 1.2 million records, making it the largest dataset on Biodiversity Maps. MothsIreland is a group of experts who maintain one of Ireland’s largest datasets of species observations, submitted by an extensive network of recorders spread across the country.

This dataset now contains a staggering 1,255,377 records, of 1,497 species, ranging from 1840 to the present day. The compilation and management of this huge dataset is all done on a voluntary basis and has resulted in a huge step forward in the knowledge of moth distribution in Ireland. All the data and associated information can be viewed on MothsIreland’s own website at [www.mothsireland.com](http://www.mothsireland.com). Publishing the dataset through Biodiversity Maps brings the added value that moth data can now be viewed in association with other species data, is freely available to be used in decision-making, and feeds into international species perspectives via the Global Biodiversity Information Facility. The dataset can be viewed on Biodiversity Maps at <https://maps.biodiversityireland.ie/Dataset/143>

The MothsIreland dataset as viewed on Biodiversity Maps



The most commonly recorded moth species so far in 2022 is the White Ermine, with 428 sightings to date.

The National Biodiversity Data Centre also supports MothsIreland by ensuring any moth data submitted through Ireland’s Citizen Science Portal is provided to MothsIreland to add to its database. The Moths recording form on the Citizen Science portal can be found here: <https://records.biodiversityireland.ie/record/moths#7/53.455/-8.016>



# Data Centre ecologist wins award for Insect Conservation

We are delighted that the inspirational work of our colleague, Dr Úna FitzPatrick, in pollinator conservation has been recognised internationally. Úna is Senior Ecologist at the National Biodiversity Data Centre and is responsible for the establishment of the All-Ireland Pollinator Plan. She has been awarded the prestigious 2022 Royal Entomological Society of the UK award for her ‘outstanding contribution to insect conservation’.

This is fitting recognition for the transformative approach that Úna has spearheaded to address pollinator decline in Ireland. The All-Ireland Pollinator Plan has set the standard for a new way of delivering biodiversity conservation on the ground through positive engagement and promotion of evidence-based actions. The Plan has achieved remarkable support, with 593 partner organisations from across the public and private sector. It has inspired over 1,000 local communities and businesses to take action across the island of Ireland, and more than 700 gardens have been pledged for pollinators. Support for the All-Ireland Pollinator Plan was also included as a key action in the current Programme for Government. By any measure, this is a remarkable success story. It is a shining example of best practice that partners in other countries are seeking to emulate.

Úna has been one of the driving forces behind the success of the National Biodiversity Data Centre since its establishment in 2007. She has always applied innovative



approaches to her work areas. For example, she produced the first swatch for Ireland’s bees to help capacity building and support the citizen science network to aid identification and monitoring. This approach has been adopted for capacity building and monitoring of other taxonomic groups. She also played a key role in the production of *Ireland’s Biodiversity in 2010 – State of Knowledge* publication.

Prior to her work with the National Biodiversity Data Centre, Úna’s research led to publication of the National Red List of Bees, Ireland’s first ever National Red List.

All of her colleagues are proud of Úna’s achievements and are thrilled that she has received international recognition for her work.

## Launch of Ireland’s Biodiversity Learning Platform

The National Biodiversity Data Centre launched Ireland’s Biodiversity Learning Platform to host online courses on Ireland’s biodiversity. The long-term goal of the platform is to increase the learning materials available to both volunteers and professionals. Ireland’s Biodiversity Learning Platform is offered as a free shared-service to its partner organisations to use for some of their training needs. The number and variety of courses available through the platform will expand over the coming months and years.

When a course is completed and a quiz passed, a digital certificate is received as proof of achieving competency in that subject area.

- Identifying Ireland’s common farmland hoverflies
- Marine Biodiversity Citizen Science
- How to identify Ireland’s butterflies
- Garden Butterfly Monitoring Scheme
- How to identify, record and monitor common Irish bumblebees
- Spiders of Ireland

### How are learners assessed?

To receive a certificate, learners must review all content contained in the course and pass a multiple choice question quiz. Required passing rates vary between courses and individual quizzes. If you do not pass on the first try, you have the opportunity to retake the quiz and proceed to the next stage of the course.

If a video is embedded in the course, these must be watched in full and a learner can not skip over material. When a learner successfully passes the quiz and watches all video material, they are presented with a digital certificate.

**Currently, six free courses are available:**

# Butterfly populations continue to decline in Ireland

**N**one of Ireland's 15 commonest species are increasing in population, and there are now -35% fewer butterflies flying in the wider countryside than there were in 2008. These are the stark findings of the analysis of Irish Butterfly Monitoring Scheme for 2021.

The multi-species index, which provides an overall picture of the population trends of 15 widespread species, shows a -35% decline compared with 2008. During the last 10 years, the decline has been -7%, which statistically is a stable population. This suggests that in recent years,

66

*there are now -35% fewer butterflies flying in the wider countryside than there were in 2008...*

the overall decline in butterfly populations has stabilised, but at a very low level.

The Irish Butterfly Monitoring Scheme produces trends in the individual species, and this shows a similar worrying trend. Seven species have experienced a strong decline in populations since 2008. The population declines are Ringlet (-88%), Green-veined White (-87%), Meadow Brown (-86%), Speckled Wood (-78%), Small White (-77%), Large White (-76%) and Orange-tip (-68%). Moderate declines were evident for a further six species. For common and widespread species, declines of this magnitude are extremely worrying and they give an insight into the likely trends in other insect groups.

The populations of Peacock and Brimstone have remained stable over the 14 years of the monitoring scheme.

## About the Irish Butterfly Monitoring Scheme

Established in 2008, the Irish Butterfly Monitoring Scheme has been tracking changes in butterfly populations for 14 years. The scheme was established because butterflies are sensitive to changes in their environment, making them good indicators of land use and climate change effects. It is the longest running insect monitoring scheme in Ireland and is managed by the National Biodiversity Data Centre. It involves volunteers walking a fixed route (transect) each week, when weather conditions are favourable, and counting all the butterflies seen.

Species	Trend 2008 - 2021	MSI*
Brimstone	Stable	No
Peacock		Yes
Common Blue	Moderate decline	Yes
Small Copper		Yes
Small Heath		Yes
Small Tortoiseshell		Yes
Wall Brown		No
Wood White		Yes
Green Veined White	Strong decline	Yes
Large White		Yes
Meadow Brown		Yes
Orange Tip		Yes
Ringlet		Yes
Small White		Yes
Speckled Wood		Yes
Dark Green Fritillary	Uncertain	No
Dingy Skipper		No
Grayling		No
Holly Blue		Yes
Silver Washed Fritillary		Yes
Painted Lady	Moderate increase	No
Red Admiral	Stable	No

Population Trends 2008-2021

(\*MSI: Included in Multi-species Index)

It is a huge voluntary effort by citizen scientists, with 88 transects walked by 69 volunteers, counting 27,900 individual butterflies. A further 28 transects are monitored under the reduced Five-visit Monitoring Scheme, generating counts of a further 4,852 individual butterflies.

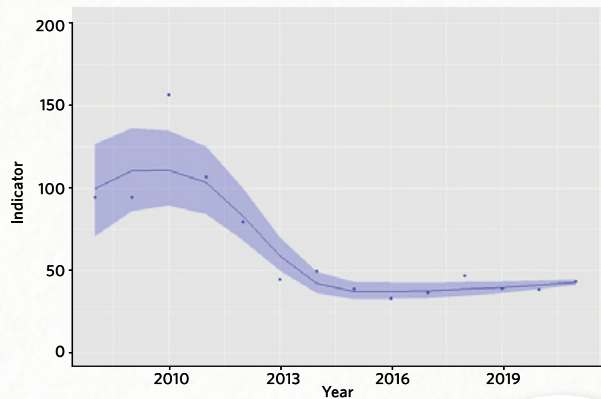
## Can you help?

The number of transects walked for the Irish Butterfly Monitoring Scheme is reducing each year, so we are always looking for volunteers to participate. If you would like to establish a transect close to where you live to help monitor butterflies, please email [butterflies@biodiversityireland.ie](mailto:butterflies@biodiversityireland.ie).

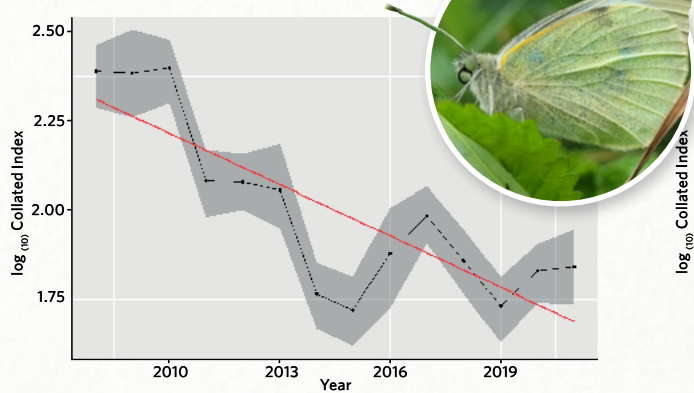
See the detailed analysis in the annual report at <https://biodiversityireland.ie/results-of-the-butterfly-monitoring-scheme-2021-released/>



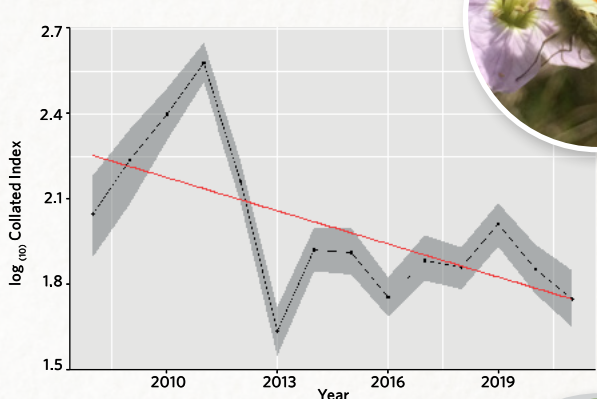
**Figure 1.** The multi-species index derived from the amalgamation of the population trends of 15 common species of butterflies from 2008 to 2021.



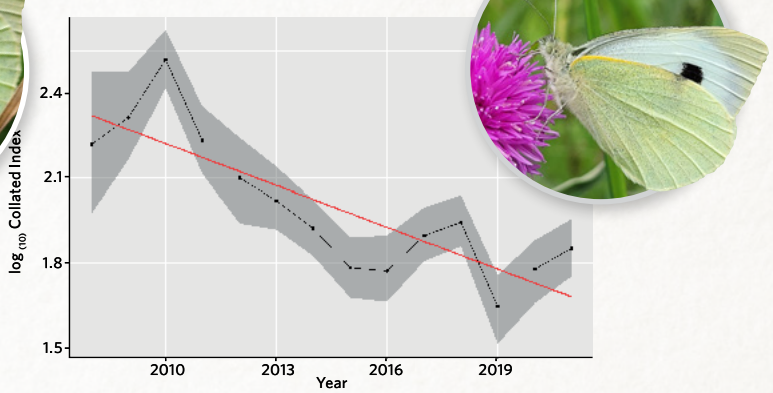
Collated index for Large White, *Pieris brassicae*



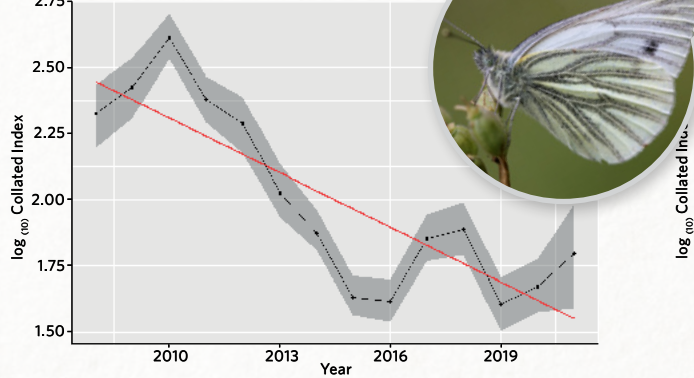
Collated index for Orange-tip, *Anthocharis cardamines*



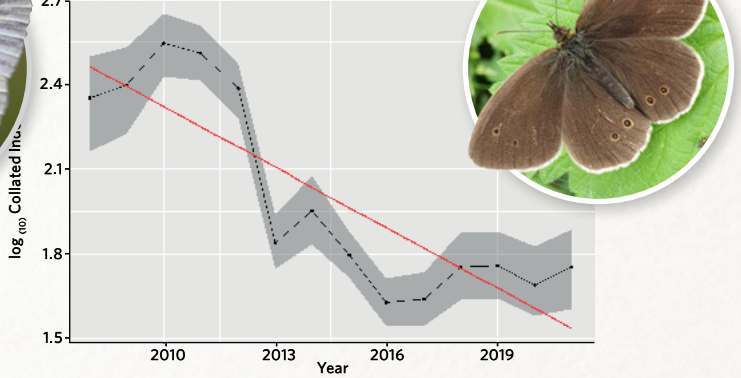
Collated index for Small White, *Pieris rapae*



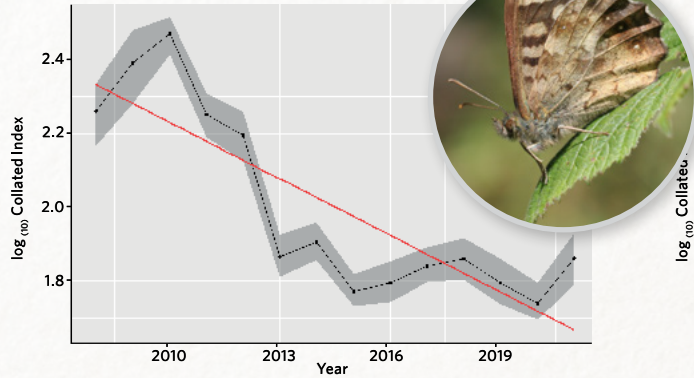
Collated index for Green-veined White, *Pieris napi*



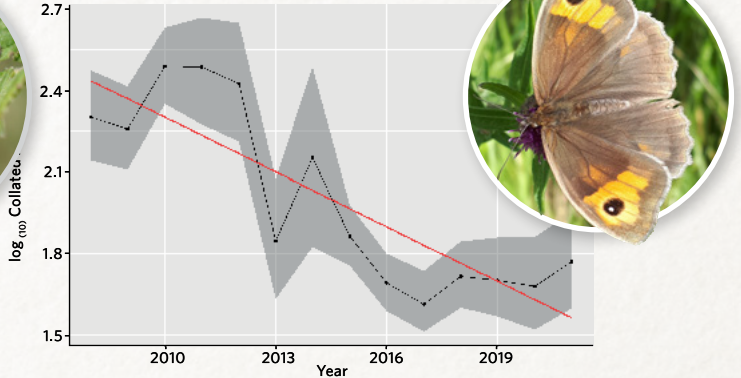
Collated index for Ringlet, *Aphantopus hyperantus*



Collated index for Speckled Wood, *Pararge aegeria*



Collated index for Meadow Brown, *Maniola jurtina*





## New resources for rare bees

The National Biodiversity Data Centre, through its management of the All-Ireland Pollinator Plan, has released new guideline documents to help communities protect rare species - the Large Carder Bee (*Bombus muscorum*) and the Northern Colletes Bee (*Colletes floralis*). These guides identify threats to these rare pollinators and actions that can be taken to protect them.

Unfortunately, the most recent data from the All-Ireland Bumblebee Monitoring Scheme, run by the National Biodiversity Data Centre, show the Large Carder Bee is in ongoing decline. In Ireland, it is currently found in greatest density in coastal areas where flower-rich dunes, machair or grasslands remain. It also occurs on flower-rich bogs and heaths. Uniquely in Ireland, it can be found in urban environments, particularly in areas where there are large meadows in urban parks.

The Northern Colletes Bee is a ground-nesting solitary bee that is restricted to flower-rich coastal habitats such as dunes and machair. It is facing severe decline in Northern Europe, with Ireland currently holding up to 90% of the remaining populations of the bee in the Atlantic zone. Under-grazing, agricultural intensification and development has resulted in reduction and fragmentation of its habitat. It is the only wild bee species that is more widespread in Ireland than in Britain.



An all-island partnership was established to provide resources to help protect the Northern

Colletes bee, led by the National Trust and comprising the National Biodiversity Data Centre, Buglife, the National Parks and Wildlife Service, and with funding from the Department of Agriculture, Environment and Rural Affairs.

These bees are in trouble because our landscape no longer contains enough of the habitats required for food, close to safe areas where it can nest. Any local community lucky enough to have these rare bees in their area can take simple and low-cost actions to ensure their survival.

See <https://pollinators.ie/helping-endangered-pollinators/>

## Skerries Wild Bee Festival

September saw Skerries celebrate its first Wild Bee Festival. This three-day event was a collaboration between Fingal County Council, the National Biodiversity Data Centre, and Sustainable Skerries.



Over the weekend, members of the public learned about the Large

Carder Bee (*Bombus muscorum*), a native bumblebee that is in severe decline across Ireland but is thriving in Skerries, as a direct result of the hardworking Sustainable Skerries group.

Festival-goers were taught about pollinators and their positive impact on the native flora and fauna of Ireland through various seminars, workshops, and walks. Dr Úna FitzPatrick, Senior Ecologist with the National Biodiversity Data Centre, said: "The Skerries Wild Bee festival allowed us to support local communities in implementing the Pollinator Plan. Importantly, it also gave us the opportunity to help them to track the impact of their actions by learning about the monitoring schemes run by the National Biodiversity Data Centre. The work undertaken in Skerries to protect and monitor the rare Large Carder Bee is an inspiration, and we hope to encourage many other local communities across the island to follow their lead. We also look forward to future events like this with other Councils in coming years."



# Biodiversity Accountability and Transparency for Business

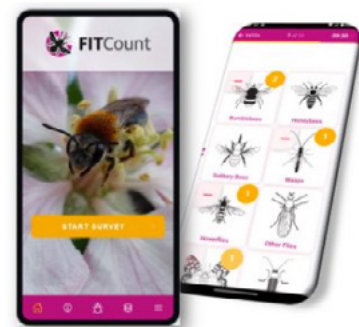


The All-Ireland Pollinator Plan's Business Supporters, for the first time this year, are both reporting and mapping their actions on 'Actions for Pollinators' – the Pollinator Plan's 'biodiversity-accountability' portal. This portal has been developed by the National Biodiversity Data Centre to support the implementation of its All-Ireland Pollinator Plan.

The All-Ireland Pollinator Plan – which is voluntary and free to join – is considered an entry-level programme to help biodiversity on any site, and allows large multi-site corporates, SMEs and micro-enterprises to deliver and then map evidence-based actions.

The Pollinator Plan's Agri-business Officer, Sarah Kelly said: "The new mandatory requirement to report and map actions is the perfect measurement tool to allow businesses to demonstrate their biodiversity credentials. We are really excited to see the extent of pollinator/biodiversity work being carried out by businesses in 2022 and we will publish the report at the beginning of December." See <https://pollinators.ie/businesses/>

## National Biodiversity Data Centre launches new app to collect pollinator data



In order to track changes in abundance of pollinating insects, the National Biodiversity Data Centre always need more data. You can help by doing a Flower-Insect Timed Count (FIT Count) and to make this even easier, a new app has been launched to help recorders upload their results. The National Biodiversity Data Centre would like to express our thanks to the UK Pollinator Monitoring Scheme and

to the EU SPRING project, who developed a version of the app for use within Ireland.

We hope that readers can help by downloading the app and carrying out some FIT Counts in 2022. Apart from collecting very valuable data on flower-visiting insects, it is a lovely way to spend 10 minutes connecting with nature!

## New guide to creating solitary bee nesting sites

In 2019, the National Biodiversity Data Centre received funding through the Department of Agricultural, Food and the Marine for a five-year European Innovation Partnership (EIP) project called 'Protecting Farmland Pollinators'. By working closely with a group of 40 farmers, chosen to reflect differing farm types and intensity levels, it identifies actions that will allow biodiversity to coexist within a productive farming system. In consultation with farmers, the first Action Sheet, using data from this EIP project, has been developed. This action sheet outlines how best to create solitary bee nest sites.

Download your copy at: <https://biodiversityireland.ie/how-to-create-solitary-bee-nest-sites-on-your-farm/>



# Helping local authorities to address the biodiversity emergency



**L**imerick City and County Council and the National Biodiversity Data Centre jointly hosted a conference in September on 'How local authorities can address the biodiversity emergency'. About 200 delegates attended the two-day conference, discussing and identifying actions local authorities could take to address the biodiversity emergency.

The conference also heard from speakers who highlighted excellent examples of work that was already delivering actions for biodiversity at the local level. The delegates stressed the need for biodiversity action to become a more core part of all local authorities' work. A series of recommendations from the conference is being finalised and will be produced shortly.



Sharon Lynch, Environmental Technician, and Sinead Mc Donnell, Environment Awareness Officer, Limerick City and County Council; Deputy Mayor of Limerick, Cllr Kieran O Hanlon; and Caitriona Scully, Economic Project Development Officer, West Limerick Resources.



Amanda Pedlow, Heritage Officer Offaly County Council; Deputy Mayor of Limerick, Cllr Kieran O Hanlon; Dr Úna Fitzpatrick, Senior Ecologist, and Dr Liam Lysaght, Centre Director, National Biodiversity Data Centre; Ricky Whelan, BirdWatch Ireland; and Cllr Seán Hartigan, Green Party.



Nuala O'Connell, Senior Planner; Aisling Coughlan, Clerical Officer; Mayor of Limerick Cllr Frances Foley; Sharon Lynch, Environmental Technician; and Aisling Mulvihill, Clerical Officer, Limerick City and County Council.



Deirdre Burns, Heritage Officer, Wicklow County Council; Amanda Pedlow, Heritage Officer, Offaly County Council; Dr. Liam Lysaght, Director, National Biodiversity Data Centre; Shirley Clerkin, Heritage Officer, Monaghan County Council; and Catherine Casey, Heritage Officer, Laois County Council.



Dr Micheál Ó Cinneide and Elizabeth Gabbett, Project Officer, Maigue Rivers Trust.



Delegates were invited to take part in round-table discussions and to contribute to the resulting series of recommendations.



One of the keynote speakers, Gitty Korsuize, Urban Ecologist with the City of Utrecht, explained how Utrecht is incorporating biodiversity at the strategic level in planning for the city's growth.

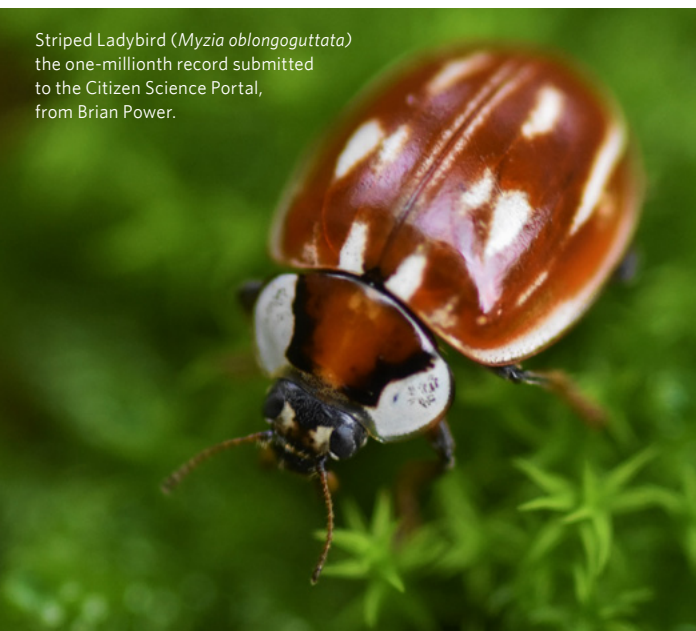


## IRELAND'S CITIZEN SCIENCE PORTAL

# hits 1,000,000 records



Striped Ladybird (*Myzia oblongoguttata*)  
the one-millionth record submitted  
to the Citizen Science Portal,  
from Brian Power.



**I**reland's Citizen Science Portal, developed and hosted by the National Biodiversity Data Centre, recently saw its one-millionth record submitted through the system. This is a true milestone and shows the extensive level of recording effort carried out by our recorder network. Levels of biological recording have been increasing year on year and particularly since 2020, when we noticed a dramatic increase in the number of records being submitted through Ireland's Citizen Science Portal.

This significant increase in recording activity in the past few years has certainly fast-tracked hitting the one-million record. Since 2018, we have received over 100,000 records each year, and since 2020 this annual figure has exceeded over 150,000 records, with over 157,000 records submitted this year already.

The one-millionth record through the Citizen Science Portal was for a Striped Ladybird (*Myzia oblongoguttata*) from Co Carlow, submitted on October 25th by Brian Power. When asked about this particular find and what biological recording means to Brian, he had this to say:

"The Striped Ladybird is one of our largest ladybird species, but given its habitat preference, is likely to be under-recorded. The species is a pine specialist, with all my records coming from Scots Pine, and was originally discovered by a visiting ecologist in my local village a number of years ago, where there is an easily accessible Scots Pine in a graveyard.

"This original record, under our noses, led to a targeted search, with fellow local ecologist, Ciaran Byrne, for accessible Scots Pine. This tree species is also home to another Pine specialist and apparently scarce species, the 18-Spot Ladybird, as well as being an important wintering habitat for a number of other ladybird species. A second local site for both these species was discovered in 2021 within three kilometres of the original site. Targeted searching of pines also led to the discovery of Striped Ladybird near Glencar, Co. Kerry.

"During the summer of 2022, I had the realisation that one of our local BirdWatch Ireland branch members had a garden named 'Pineswell'. On contact with him, it was confirmed his pines were indeed Scots and access was no problem. A summer visit yielded larvae of Striped Ladybird, and this autumn visit led to the discovery of both Striped and 18-Spot Ladybirds in his garden.

"My interest in ladybird recording was sparked back in 2012, with the record of the invasive Harlequin Ladybird larva on a pear tree we had just planted in the garden. This was followed by the discovery of several variants of 10-Spot Ladybird and then an Eyed and Larch ladybird, all in the garden. I soon started to realise that, like most groups, ladybirds were drastically under-recorded, although most species are identifiable from photos. Ladybirds can also be

recorded all year round, with certain species having distinct wintering habits. Hand searching or basic ecological survey techniques, such as beating and sweeping can be very productive. They are also a beetle group that most people instantly recognise, making them a

good group to catch people's attention.

This one-millionth record milestone shows the huge level of activity across the country, by 29,875 individual recorders. Staff at the National Biodiversity Data Centre would like to take this opportunity to thank our recorder network for their time, effort and expertise in the collection of this important biological data. Ireland's Citizen Science portal is available to all. Please submit your records to <https://records.biodiversityireland.ie> so they can be added to our national biodiversity database.

***This one-millionth  
record milestone  
shows the huge  
level of activity  
across the country by  
29,875 individual  
recorders***

## WORKING TOWARDS

# A Red List of Irish Wasps

This year, the National Biodiversity Data Centre initiated a project focusing on one of Ireland's most maligned and misunderstood insect groups: wasps. With insects facing a multitude of threats and experiencing declines worldwide, it is important that we understand how our wasp species are faring in Ireland.



*Ancistrocerus  
oviventris*



*Dolichovespula norvegica*



*Chrysis impressa*



*Priocnemis exaltata*

### Wasp diversity in Ireland

In Ireland, there are over 120 of what are known as the aculeate or 'stinging' wasps, which are closely related to both bees and ants. This total includes our familiar black and yellow social wasps, as well as other lesser known solitary species, such as the various ruby-tailed and spider-hunting wasps. Some of the key families of this incredibly diverse group can be seen below:

### Social Wasps (Vespidae)

Several species within this group form large colonies, made up of a queen, workers and males. Some nest underground in old rodent burrows while others may nest above ground within the cover of shrubs or hedgerows. They are among the most familiar wasps in Ireland and some species can be easily encountered in a wide variety of habitats, especially the Common Wasp (*Vespula vulgaris*) and German Wasp (*Vespula germanica*). Several others are solitary species, nesting in hollow plants stems or in mud chambers built in rock crevices or in bee hotels. There are 17 species in this group.

### Ruby-tailed Wasps (Chrysididae)

Species in this group have a spectacular appearance, with shining iridescence and bright contrasting colours. They are solitary and sometimes known as cuckoo wasps as the females lay their eggs in the nests of other wasp species, mainly solitary member of the Vespidae and several Digger Wasps. There are six species in Ireland, although there may be more as they are difficult to tell apart and rather elusive.

### Spider-hunting Wasps (Pompilidae)

This is a distinctive and well-named group, as the females relentlessly hunt various spider species, particularly Wolf Spider and Crab Spiders. They typically have rather long legs and twitching antennae and are incredibly fast movers. Nests are constructed solitarily, mostly in loose sand but some species use loose stones and various existing crevices among rocks and manmade structures. There are 13 species in Ireland.



## Thread-waisted Wasps (*Sphecidae*)

These are among the largest wasps in Ireland and have a rather imposing appearance, measuring several centimetres long, with contrasting black and orange colouration. They typically nest solitarily in light sandy soils, and are voracious hunters of various caterpillars. There are two species in Ireland, both with rather restricted distributions.

## Digger Wasps (*Crabronidae*)

This is one of the largest groups in Ireland, with 41 species recorded here so far. All species are solitary and nest in a variety of settings, such as empty plant stems, bee hotels, dead wood, bare sand and clay banks. They are predatory species which hunt a wide variety of other insects, including aphids, froghoppers, thrips and various flies.

## Why wasps matter

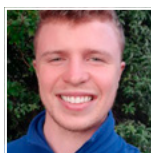
Wasp often have varied and intricate life cycles and many offer a range of ecological benefits:

- **Pest control:** wasps are predatory insects and collectively they help to keep other insect populations under control. This is particularly true for moth larvae, aphids, spiders, flies, thrips, froghoppers and leaf hoppers.
- **Pollination:** many wasp species are avid nectar feeders and will visit a wide variety of flowers. In doing so, they contribute to pollination.
- **Interaction with other species:** wasps themselves fall prey to other insects, birds and mammals, and play an important part in their survival. Hoverflies such as the Pellucid Hoverfly (*Volucella pellucens*) rely on wasp nests for their larva to develop.

## Our progress so far

The first stage of this project was to consolidate all existing records, many of which had yet to be digitised. This involved gathering many old records in published papers from the late 19th century and combining them with more recent records submitted through the citizen science portal, along with everything in between. For the first time, we now have a dataset dedicated solely to Irish wasps, enabling us to see where they have been found.

The second stage of this project was to create species profiles on the National Biodiversity Data Centre website, making ecological and identification information for each of Ireland's wasp species freely available to the public. This section of the project is well underway and will be completed by the end of 2022. Existing species profiles can be viewed here by typing 'Wasp' in the Keyword search bar: [species.biodiversityireland.ie](https://species.biodiversityireland.ie)



**Owen Beckett**

PROJECT MANAGER

Wasp Red List Project

National Biodiversity Data Centre



*Dolichovespula norvegica*

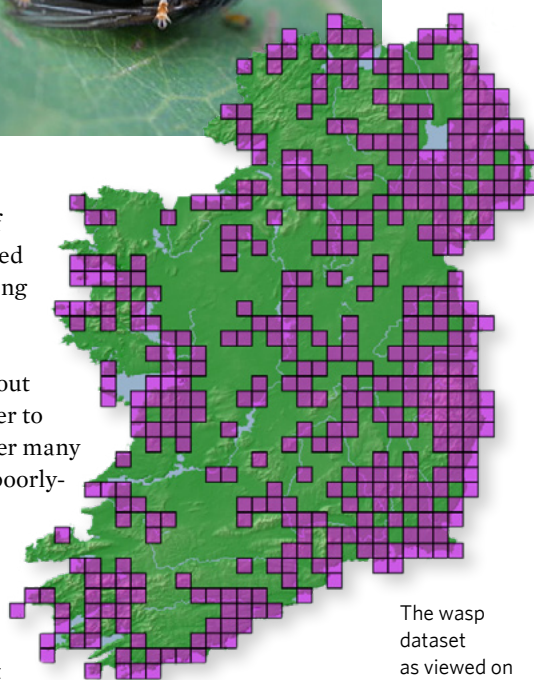


*Mellinus arvensis*

The third stage of the project involved dedicated surveying of wasps right across Ireland. This was carried out during the summer to determine whether many of the scarcer or poorly-recorded species could be found more widely, or whether they could still be found at their last known locations.

This was a particularly rewarding part of the project as several new sites were found for species which had only been seen in Ireland once or twice. It is hoped that this element of the project can be continued next summer.

As an added benefit to this project, we now have an active validation process for wasp species, meaning that records submitted through our citizen science portal will be verified and added to the newly created dataset. So, if you manage to find any wasps, remember to submit your sightings ([records.biodiversityireland.ie/start-recording](https://records.biodiversityireland.ie/start-recording)) as this will greatly contribute to our knowledge of this fascinating and under-appreciated group of insects.



The wasp dataset as viewed on Biodiversity Maps

This project is funded by National Parks and Wildlife Service



An tSeirbhís Páircenna Náisiúnta agus Fiadhúlra  
National Parks and Wildlife Service



# Irish Intertidal Fish and Invertebrates



Intertidal areas of rocky shore are one of Ireland's most biodiverse habitats. Among the seaweed covered rocks live a myriad of marine invertebrates and even fish! This poster presents just a few of our common and readily identified intertidal fish and invertebrate species. Our Rocky Shore Safari asks volunteers to take part in a fun and enjoyable survey to record intertidal animals and seaweeds to help us map their distribution. Find out more at [ExploreYourShore.ie](https://ExploreYourShore.ie)



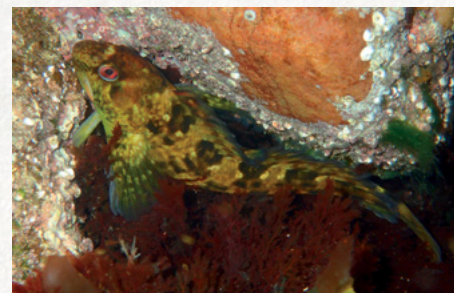
**Common Prawn / Cloicheán coiteann /**  
*Palaemon serratus*

☉ Mid to lower shore ☞ Maximum length: 11 cm



**Butterfish / Sleamhnóg /***Pholis gunnellus*

☉ Mid to lower shore ☞ Maximum length: 25 cm



**Shanny / Ceannruán /***Lipophrys pholis*

☉ Mid to lower shore ☞ Maximum length: 16 cm



**Purple Sea Urchin / Cuán Mara Dubh /**  
*Paracentrotus lividus*

☉ Whole shore in rockpools ☞ Maximum width: 7 cm



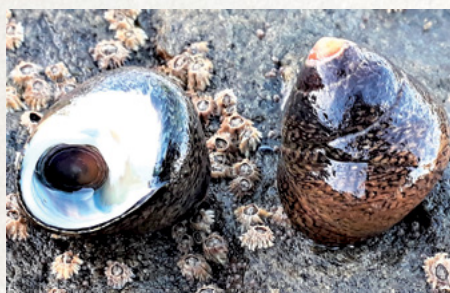
**Beadlet Anemone / Bundún coirnéach /**  
*Actinia equina*

☉ Whole shore ☞ Maximum column width: 5 cm



**Strawberry Anemone / Bundún Sú Talún /**  
*Actinia fragacea*

☉ Lower shore ☞ Maximum column width: 10 cm



**Thick (Toothed) Topshell / Faochán Muire**  
**Tiubh /***Phorcus lineatus*

☉ Middle shore ☞ Maximum width: 3 cm



**Dog Whelk / Cuachma Chon /**  
*Nucella lapillus*

☉ Mid to lower shore ☞ Maximum height: 3 cm



**Edible (Common) Periwinkle / Gioradán /**  
*Littorina littorea*

☉ Whole shore ☞ Maximum height: 5 cm



**Common Shore**  
**Crab / Portán**  
**Glas /***Carcinus*  
*maenas*

☉ Whole shore  
☞ Maximum width: 8 cm



**Honeycomb Worm / Péist Mhiltéogach /**  
*Sabellaria alveolata*

☉ Lower shore ☞ Maximum thickness of reef: 2 m





**Sea Slater / Cláirseach Thrá /**  
*Ligia oceanica*

☉ Upper shore 📏 Maximum length: 3 cm



**Common Starfish / Crosóg mhara dhearg /**  
*Asterias rubens*

☉ Mid to lower shore 📏 Max. width: 50 cm (smaller intertidally)



**Snakelocks Anemone / Bundún nathairiúil /**  
*Anemonia viridis*

☉ Mid to lower shore in rockpools 📏 Maximum width: 18 cm



**Flat Periwinkle / Faocha leathan /**  
*Littorina obtusata* and *Littorina fabalis*

☉ Mid to lower shore 📏 Maximum height 1.5 cm



**Spiral Worm / Tiúbphéist Chorntha /**  
*Spirorbis (Spirorbis) spirorbis*

☉ Mid to lower shore 📏 Maximum width: 4 mm



**Common Acorn Barnacle / Garbhán**  
**Carraige Coiteann /** *Semibalanus balanoides*

☉ Middle shore 📏 Maximum width: 1.5 cm



**Cushion Star / Crosóg fhaoilinne /**  
*Asterina gibbosa*

☉ Lower shore 📏 Maximum width: 5 cm



**Flat (Purple) Topshell / Faochán Muire**  
**Corcra /** *Steromphala umbilicalis*

☉ Whole shore 📏 Maximum width: 2.2 cm



**Common Limpet / Bairneach coiteann /**  
*Patella vulgata*

☉ Whole shore 📏 Maximum length: 6 cm



**Breadcrumb Sponge / Spúinse Grabhrógach /**  
*Halichondria (Halichondria) panicea*

☉ Lower shore 📏 Maximum width: 15 cm (exceptionally 60 cm)



**Common Hermit Crab / Faocha gliomaigh /**  
*Pagurus bernhardus*

☉ Mid to lower shore in rockpools 📏 Max. length (without shell): 3.5cm



**Green (Shore) Urchin / Cuán Mara Glas /**  
*Psammechinus miliaris*

☉ Lower shore 📏 Maximum width: 6 cm (typically 3.5 cm)



**Grey Topshell / Faochán Muire Glas /**  
*Steromphala cineraria*

☉ Lower shore 📏 Maximum width: 1.5 cm



**Spotted Sea Hare / Giorria mara /**  
*Aplysia punctata*

☉ Lower shore 📏 Maximum length: 7 cm (exceptionally 20 cm)



**National Biodiversity Data Centre**  
A Heritage Council Programme







## Biodiversity Maps

The data and mapping portal Biodiversity Maps <https://maps.biodiversityireland.ie/> provides access to data on Ireland's biodiversity. At the end of October 2022, it maps 5,975,511 records of 17,327 species from 172 separate datasets.

Recently added, our updated datasets include:

### Butterflies of Ireland

784 records

### Online Atlas of Vascular Plants:

17,095 records

### Earthworms of Ireland

7 records

### Mammals of Ireland 2016-2025:

30 records

### Ladybirds of Ireland:

150 records

### Community Foundation for Ireland records:

317 records

### Butterflies of Northern Ireland:

13,082 records

### Explore Your Shore

3,513 records

Ireland's Citizen Science Portal <https://records.biodiversityireland.ie/> continues to see a large volume of records submitted. In late October 2022, 156,676 were submitted since the beginning of the year, and a major milestone was reached on October 26th, when the one-millionth citizen science record was submitted.




## Explore Your Shore!

In September, we uploaded a further 3,513 validated records to the Explore Your Shore! dataset on Biodiversity Maps. Since 2019, our network of 1,554 Explore Your Shore! Citizen Scientists has contributed over 11,000 validated Open Access records to the national Biodiversity Dataset. Thank you to all who have contributed data so far, and please keep submitting your marine records. We need records of all intertidal and marine species, whether very rare or extremely common.

In August, we took part in a cross-border Marine Bioblitz in and around Carlingford Lough with teams from Ulster Wildlife and Coastwatch surveying at Rostrevor, Co. Down; a team from Seasearch NI diving at Greenore, Co. Louth; and Explore Your Shore! surveying at Templetown, Co. Louth. The surveys were followed by talks at Kilbroney Park, Co. Down. A total of 128 species were recorded across the three sites, including banded venus, Lion's mane jellyfish, sea beech, and sand star.

In September, we teamed up with the BirdWatch Ireland Cuskinny Marsh Nature Reserve and Jim Wilson to run another Marine Bioblitz at Cuskinny Bay, Cobh, Co. Cork. Cuskinny turned out to be a great little site with at least 102 species recorded, including Montagu's and Risso's crabs, Leach's squat lobster, lots of pipefish, butterflyfish and shannys. Thanks to all who turned out for our 2022 Marine Bioblitzes, and watch this space for more Bioblitz fun in the new year!

In August and September, we hit the coast at locations around Ireland to run shore-based training with local groups. In August, we met with Clean Coasts groups from Mayo, Galway, Clare, Wexford, and Dublin, many of whom had participated in the Clean Coasts Observer programme ([www.cleancoasts.org/clean-coasts-observer/](http://www.cleancoasts.org/clean-coasts-observer/)), run jointly with Explore Your Shore! Then, in September we joined up with the Llyn IVeragh Eco-museums (LIVE) project in Ballinskelligs for a training session on the beach, where we were joined by locals and staff from the local marine awareness centre, Sea Synergy.

In August, we also hit the shore at Salthill in Galway with our Explore Your Shore! Galway hub, run by Garry Kendellen at Galway Atlantaquaria. We had a fantastic session, with lots to see, including shore rockling, butterflyfish, baked bean ascidians, and rock gobies. We are looking for other coastal businesses, groups, or organisations who would like to become Explore Your Shore! hubs and drive marine biodiversity Citizen Science recording in their local area. If you are interested, please email [dwall@biodiversityireland.ie](mailto:dwall@biodiversityireland.ie)

In June, we were delighted to add another survey to our list of Marine Biodiversity Citizen Science partner projects in the form of the Irish Marine Recreational Angling Survey (IMREC), run by Inland Fisheries Ireland. They are looking for your Sea and Shore Angling Records to help gather information on fish species and the nature of sea angling in Ireland. To find out more, visit [www.exploreyourshore.ie/imrec/](http://www.exploreyourshore.ie/imrec/)





A small sample of the 128 species recorded during the recent Bioblitz at Carlingford Lough.

Our Seashore Splash! returned for Biodiversity Week and Heritage Week 2022. 143 records of over 100 species were recorded for Biodiversity Week in May, while 549 records of over 200 species were recorded during Heritage Week in August. Congratulations to the winners of our Seashore Splash! Swatches draw, Anna Emer Kellagher and Ruben Keane (Biodiversity Week), and Kevin Halley and Dean McCullough (Heritage Week).

We had a good response to our Explore Your Shore! Surveys Questionnaire sent out in August. The great news is that all respondents said they wanted to continue to submit records to Explore Your Shore! in future. We did learn however that 65% of recorders preferred casual/unstructured recording to structured surveys. We have listened, and we plan to introduce a couple of new surveys where you will be free to choose when and where you record! We are still reviewing the survey responses and will respond to more of your comments and suggestions in the coming months. A big thank you to all who took the time to respond.

Many of you have requested more online identification and we would point you in the direction of our free online course at [www.exploreyourshore.ie](http://www.exploreyourshore.ie). We will also consider running more online identification talks over the winter months.



If you are struggling to identify a marine species, you can either record it as 'unidentified' using our seashore spotter form or post it on our Facebook page ([@ExploreYourShore](https://www.facebook.com/ExploreYourShore)) where we will do our best to identify it for you.

Explore Your Shore! event with Atlantaquaria Galway

As we move into the winter months and recording for many species declines, remember that, even in the depths of winter, there is always lots to record on your local shore. So don't hibernate this winter... keep on Exploring Your Shore!

*The National Biodiversity Data Centre has developed a new poster on Irish Intertidal Fish and Invertebrates, which is available to download at [www.biodiversityireland.ie/publications/](http://www.biodiversityireland.ie/publications/). The poster covers some of our common and easily identifiable intertidal animals and a free copy can be found in the centre pages of this magazine!*



**Dave Wall**

CITIZEN SCIENCE OFFICER  
National Biodiversity Data Centre



Marine Bioblitz at Cuskenny Bay, Co Cork





# Dragonfly Ireland 2019-2024

**T**hanks to all who have submitted records so far in 2022. At the time of writing, we have received 3,871 records of dragonfly and damselfly species. 2022 has thrown up one major surprise already. Emperor Dragonflies were first recorded in Ireland in 2000 and had spread north-westward as far as Belfast and Galway in the intervening 20 years. However, in 2022 we have suddenly received records of Emperor Dragonfly as far north as Sligo and Donegal! During 2022, we also received more records of Golden-ringed Dragonflies, putting them firmly on the map (although with a very small dot!) as a new resident species for Ireland. This year's records were all in the same tiny area on the Kilkenny/Waterford border.

With the lifting of COVID19 restrictions, we were delighted to be able to run a full programme of workshops in 2022. We ran eight workshops between May and September, in Offaly, Dublin, Leitrim, Donegal, Mayo, Kerry, and Wexford. The workshops were run with the generous support of the county Heritage and Biodiversity officers, and with the support of the National Parks and Wildlife Service (NPWS) in Donegal. Many thanks to Michael Bell for leading the Sligo and Leitrim workshops and to Geoff Hunt for leading the Tralee workshop. We also ran a workshop in May for EPA field staff. In all, 111 people attended workshops and received training in species identification and survey techniques. Thanks to all who attended.

In 2022, we received funding from the NPWS and the Centre for Environmental Data and Recording in Northern Ireland (CEDaR) that enabled us to contract ecologists to survey small nutrient-poor lakes, turloughs, and calcareous lakes for dragonflies and damselflies. These are mostly sites that are not regularly visited by the public and thus would be unlikely to be surveyed in the normal course of a citizen science project. More than 185 sites were surveyed, including sites for Irish Damselfly and Scarce Emerald Damselfly.

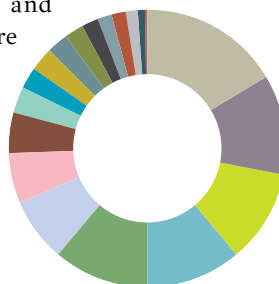
Thanks to the funding from CEDaR and NPWS, we were able to target sites specifically for Irish Damselfly in 2022. These were sites where Irish damselfly had previously been recorded or small nutrient-poor lakes (which this species prefers), where no previous record existed. Irish Damselfly has an unusual distribution in that it is present in Ireland (having been first identified by Dr Don Cotton in 1981) but is absent from Britain, and then present again on the continent and eastwards as far as Mongolia. This year, we collaborated with CEDaR and Queens University Belfast to identify active sites for Irish Damselfly for a study of the population genetics



Dragonfly workshop at Tralee Bay Wetlands Centre, Co. Kerry.

of this species.. Active sites were subsequently visited by QUB researchers or contractors, who conducted non-lethal genetic sampling. Over 400 genetic samples were obtained in 2022 and it is hoped that this study will clarify the relationship between the Irish Damselfly population here and the rest of its global distribution.

We ran our Dragonfly Dash! again this year for Biodiversity Week and Heritage Week. In May, 296 records of 12 species were submitted during Biodiversity Week, with counties Monaghan and Kildare leading the scoreboard. 460 records of 22 species were recorded in August, with counties Clare and Tipperary topping the score board for Heritage Week. Thanks to all who took part and congratulations to our guide book prize draw winners, Fearghal Duffy (Biodiversity Week) and Mary Boland (Heritage Week).



Common Darter	Black-tailed Skimmer
Blue-tailed Damselfly	Four-spotted Chaser
Brown Hawker	Large Red Damselfly
Common Blue Damselfly	Banded Demoiselle
Emperor Dragonfly	Keeled Skimmer
Emerald Damselfly	Azure Damselfly
Common Hawker	Variable Damselfly
Ruddy Darter	Beautiful Demoiselle
Migrant Hawker	Scarce Emerald Damselfly
Black Darter	



**Dave Wall**

CITIZEN SCIENCE OFFICER  
National Biodiversity Data Centre



# Moths

If you thought that macro-moths were a difficult group, and micro-moths virtually impossible, spare a thought for those who have gone down the route of leaf-mines. Many species of moths are monophagous, with the larvae feeding on a single plant species, so you could be forgiven for thinking it would be easy to identify the moths from the mines on a particular plant. However, there can be several moth species using the same type of plant.

Luckily, there are several signs on the host plants to identify the species of moths. However, this involves looking for minute and subtle signs, such as the position of the egg; the entry position of the larva into the leaf; the route of the larva through the leaf; the type and position of the frass (droppings) within the mine; and the exit position of the larva when it leaves the mine to pupate. Luckily, some of these features are very diagnostic for separating many species.

However, for some species, it can be even more difficult and can involve examining the larvae, the pupae, the exuviae or even breeding them through to adults, which still may require dissection! And then there are the species that feed inside stems/fruit/seeds. All in all, it is a truly black art and you have to be really dedicated to tackle it. But it can bring great rewards and most years see new species added to the Irish list.

Perhaps the main proponent of leaf-mining in Ireland is Dave Allen, who can often be found rooting through shrubbery or examining the fruit in supermarkets or shrubs in the local garden centre, all in the hope of finding something new.

So far in 2022, he has added three species to the Irish list. The first, *Stigmella suberivora*, was found in the National Botanic Gardens in Dublin on June 25th. The next was *Etainia sericopeza* from Belfast on July 22nd, followed by *Phyllonorycter tristigella* on August 16th, also in Belfast. Two other species have been added to the Irish fauna this year. *Spodoptera frugiperda*, Fall Armyworm, was found at Little Island, Cork, in February. This is an adventive species originating in Indiana, USA. A probable migrant *Sitochroa palealis* was found by Philip Strickland on July 18th in Ballyconnery, Waterford.

Thanks to Dave Allen for his input to this article.

*Stigmella suberivora*

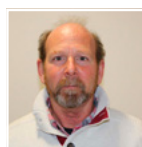


*Etainia sericopeza* All images © DaveAllen



*Phyllonorycter tristigella*

**If you thought that macro-moths were difficult and micro-moths virtually impossible, spare a thought for those who have gone down the route of leaf-mines.**



**Michael O'Donnell**

—  
MOTHSIRELAND  
[www.mothsireland.com](http://www.mothsireland.com)

# Cetaceans

## Sightings

**D**uring the period from April to end of September 2022, the Irish Whale and Dolphin Group (IWDG) validated 1,440 ‘casual’ sighting records, and 283 effort-related sightings derived from 142 land-based effort watches. These combined to produce a tally of 11 species of cetacea, as well as basking sharks and one record of a leatherback turtle. The most frequently recorded species are ranked as follows: common dolphin 19%; minke whale 17%; harbour porpoise 16%; bottlenose dolphin 16%; basking shark 6%; humpback whale 4%; fin whale 3%; Risso’s dolphin 2%; with sperm whale, killer whale, pilot whale and white beaked dolphins each at 0-1%. As the white-beaked dolphin sighting was off the Isle of Man, one could argue this record should be included. However, as always, geography trumps politics and so as an Irish Sea record, we felt this was an important one to share.

At time of writing in late September, it looks like basking sharks have had another good year, with 164 validated sighting records and counting. This is a small increase on 2021 (up 2%), but importantly reflects a three-year trend showing an increase in sightings since 2020 of the planet’s second biggest fish.

Whale sightings (all species) are, it seems, down across the board on 2021 figures. Our three most frequently recorded rorquals, the minke, humpback and fin whales were down 17%, 46% and 53% respectively on the same period in 2021. West Cork is probably a good bellweather for how these whales are doing, and if the past summer season is anything to go by, then we’d have some concerns!

Despite the humpback season starting as expected in late April in West Cork, with a flurry of returning animals, all of whom we recognised from previous years, by May the numbers simply never built. By June, the trickle of humpbacks had all but evaporated. Of course, bad news for Cork was always likely to be good news for our neighbours in West Kerry... but was it? The figures show only a 5% increase in humpback days, with sightings around the Dingle Peninsula. So it seems likely that the cohort we’d have expected in places like west Cork

likely tracked further up the west coast, which may be reflected in sightings in Donegal Bay on June 24th and in Broadhaven Bay, Co Mayo, between July 28th to 31st, and off the West Clare coast in late August. Humpbacks, it seems, are on the move.

The decline in fin whale sightings is even more pronounced, with just 51 confirmed reports to date, compared with 109 for the same period in 2021, a decline of 53%. Although at least with fin whales, there is time to

turn the season around, as we tend to get more sightings of the ‘Greyhound of the Sea’ along the Celtic Sea area during autumn and early winter, and at time of writing in late September, there now seems to be good numbers of them returning to West Cork.

But what of the Odontocetes, or toothed whales? There will always be anomalies, such as the Dursey Sound Sperm whale in June, that one could reasonably have assumed would become a stranding event, yet didn’t. But the species that attracts more column inches than any other is, of course, the killer whale (Orca), and 2022 has been a busy year for

what is likely to be the remaining pair of adult males from the Scottish West Coast Community Group. ‘John Coe and Aquarius’ have been photographed on at least three occasions in Co Kerry, once in Co Cork and as recently as September 8th off Rathlin Island, Co Antrim.

There have been many sightings of our three main delphinid species, but one that stands out above all others is from Carlingford Lough, and before you conclude that I’m referring to ‘Finn’, the lough’s resident bottlenose dolphin, I’m not. Sighting reports, from September 10th and 25th suggest the lough may now be home, however temporarily, to a second dolphin species, as on these dates a young and very active common dolphin has been photographed here. There aren’t too many locations around the globe that can claim two ‘resident’ dolphins, of two different species!

As we move into Autumn, the shorter days and less reliable weather make whale watching a little bit more challenging. But great challenges come with great rewards!

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## Strandings

From April 1st 2022 to September 28th 2022, the IWDG Cetacean Stranding Scheme validated a total of 148 records of stranded cetaceans on the island of Ireland, down from 179 records in 2021. These figures include 10 species: bottlenose dolphin (n=4); common dolphin (n=66); Risso's dolphin (n=2); Cuvier's beaked whale (n=3); harbour porpoise (n=32); minke whale (n=3); pilot whale (n=9); striped dolphin (n=1); white-beaked dolphin (n=2); pygmy sperm whale (n=1); and finally, a new species to Ireland, one dwarf sperm whale. In addition, IWDG received four records of stranded basking sharks.

As expected, numbers were highest for common dolphins, followed by harbour porpoise. There were a total of 15 known live stranding events; nine of which involved common dolphins, two white-beaked dolphins, one bottlenose dolphin, one Risso's dolphin, one dwarf sperm whale, and one pygmy sperm whale.

With support from the National Parks and Wildlife Service (NPWS), the IWDG have launched a new project, the 'Deep Diving and Rare species Investigation Programme' (DDRIP), which aims to carry out post-mortem examinations on deep diving and rarely stranded species in partnership with the Regional Vet Labs.

Three animals have been examined under the scheme to date: one white beaked dolphin, one pygmy sperm whale, and one dwarf sperm whale. The dwarf sperm whale was of particular importance as it was the first ever record of this species in Ireland, alive or dead.

Please report all whale, dolphin and porpoise strandings, alive or dead, to the IWDG. IWDG, with support from the NPWS and the National Biodiversity Data Centre, maintain the official database of stranded cetaceans in Ireland. This is one of the longest running stranding schemes in Europe, which allows us to monitor any potentially unusual trends.



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Fin whale, recorded offshore, west Cork, during the IWDG weekend course on September 24th. © Pádraig Whooley



# Bats

**B**at Conservation Ireland was back in action in 2022! Phew! What a summer! Happily, we renewed our contract for the Irish Bat Monitoring Programme earlier this year and we currently have survey sheets coming in by the dozen from hundreds of volunteers. These citizen scientists carried out Daubenton's Waterways Surveys, Brown Long-eared Bat Roost Counts and Car-based Bat Monitoring surveys throughout the summer months.

We also have bat droppings still arriving at the UCD Bat Lab from 'Bats and Bugs' volunteers! All at Bat Conservation Ireland, as well as our funders (the National Parks and Wildlife Service, Northern Ireland Environment Agency and Community Foundation for Ireland), would like to thank each and every volunteer who contributed to these schemes in 2022. We look forward to getting the data analysed over the coming months and reporting back on our findings.

At the start of the year, we received a grant from the Heritage Council for a project 'Heritage Structures and Bats: Protecting Bats during Management, Restoration and Maintenance Works at Heritage Sites'. This involved a new departure for us, working with a small film crew from GK Media on location in county Galway and interviewing professionals who have worked at bat roosts. We are currently editing the footage into an information video. With the help of this new resource, we will run workshops for professionals, including planners and conservation architects involved in these kinds of projects. We hope this will make it easier for all involved to incorporate the needs of bats with those of built heritage structures, a win-win situation!

This year saw another new departure for us, whereby we sponsored a special award in the Tidy Towns competition. Groups were invited to submit applications for an artistic commission of 1,000 towards a public mural or street artwork. The theme for the illustration is 'Bats are brilliant!' and it aims to promote awareness of the economic and ecological value of bats. We were blown away by the number and standard of applications and the winner will be revealed at the Tidy Towns award ceremony.

In September, Bat Conservation Ireland made a submission to the Citizens' Assembly on Biodiversity Loss, addressing some threats to bats and suggesting some ways these can be addressed. You can view the submission on our YouTube channel. We believe this Citizens' Assembly is a potentially significant step in moving forward with biodiversity protection in Ireland and look forward to hearing their recommendations.

We have also started to plan for the long-awaited 10th Irish Bat Conference, which will include workshops, talks, and presentations on thematic areas of wind energy and climate change. Our last national bat conference took place in Dublin in 2017 and we had originally planned another for October 2020 – but you all remember what happened then! This conference will be held in person in Athlone in March 2023. As soon as we firm up on dates, we will let you know.



*Dr Niamh Roche*

**BAT CONSERVATION IRELAND**

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Brown long-eared bat roost at Screen Church  
© Tina Aughney



# Birds

**F**or me, as a seabird scientist, summer 2022 was unforgettable. It was the year we awoke to the devastating role disease can play in 'regulating' wild bird populations. In the previous issue, I flagged the occurrence of HPAI-H5N1 (avian influenza) on wintering Barnacle Geese in northwest Ireland, but we were caught totally unprepared for how this epidemic ripped through seabird colonies around the North Sea, crept round the north of Scotland, and was recorded in St Kilda's Great Skuas early in the breeding season. Its arrival in Irish colonies was inevitable, all that was uncertain was the timing.

In coordinating conservation action for Roseate Terns on Rockabill (Dublin) and Lady's Island Lake (Wexford), I keep in close touch with the RSPB's Senior Warden, Paul Morrison, at Coquet Island in Northumberland, England and the UK's only sizeable Roseate colony. His mixed colony mirrors ours at Lady's Island, with significant populations of Sandwich, Common, Arctic and Roseate Terns and Black-headed Gulls. The Sandwich and Roseate Terns were devastated in the last few days of June and early July: all Sandwich chicks died and about 60% of the Roseates too. There was significant mortality of adult terns, but strangely their massive Puffin colony was hardly touched.

The first 'real' arrival of HPAI in Ireland was on Rathlin Island (Antrim) where multiple Common Guillemots tested positive, but other than a handful of Gannets plus an odd Guillemot washing up dead and testing positive, the first positive test from an Irish colony was a (scavenging) Raven, rather than a seabird, on Skellig Michael (Kerry). At about the same time, a fair few ailing birds and empty breeding ledges were recorded at the Cliffs of Moher (Clare), but for obvious reasons we were unable to collect any corpses for testing. Also, by the end of the first week of July, it was agreed that seabird work, such as regular nest checks and ringing should cease and a 'hands off' remote approach to monitoring was adopted. We think the main Irish tern colonies evaded infection by and large, with most young fledging and dispersing before significant HPAI mortality was recorded in our Gannet colonies. Gannets, as Ireland's largest seabird, have an extended breeding season, lasting through to the end of September and this clearly exposed them to the virus. From about August 19th, dead Gannets started washing up on Irish beaches in significant numbers, and occasional checks at colonies, including Little Skellig, Bull Rock (Cork), Great Saltee (Wexford) and Ireland's Eye showed abnormal levels of mortality.



Gannet is just one of the seabirds affected by avian influenza. Dead Gannets started washing up on Irish beaches from mid-August

Early October sees us at that pivotal time, with breeding passerine migrants more or less gone (south) and the return of hordes of wintering waders and waterfowl (from the north). Will there be less Barnacle Geese? Could Brent Geese contract the virus from lingering Gannets? Many similar questions come to mind, but we will need a few months of monitoring effort (e.g. through I-WeBS) before we have any answers.

Regardless, it is an interesting time on the birding front. Autumn 2022 has seen a good showing of usually scarce passage Siberian waders, especially Curlew Sandpiper and Little Stint, at many coastal sites across Ireland. I even had one of the latter inland at Vartry Reservoir in Wicklow. The seawatchers working the Bridges of Ross (Clare) and Bloody Foreland (Donegal) are recording good numbers of four species of skua, Sooty Shearwaters and Sabine's Gulls amongst southbound Manx Shearwaters. Yellow-browed Warblers, another Siberian species with a tendency to head west in autumn, have showed up already at Mizen Head (Cork), Inishbofin (Galway), Achill and Belmullet (both Mayo). Take your binoculars out for a walk – you never know what might turn up!

P.S. 09:00 hr, October 5th, three Swallows heading east, Ballyduff, Wicklow!



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# Vascular Plants

**T**he Botanical Society of Britain and Ireland (BSBI) have been running their Aquatic Plant Project again this year in Ireland. Field training meetings have taken place in counties Clare, Limerick, Louth and Mayo, and we ran three online webinars, the first two on Pondweeds, and the third on Bladderworts and Water-Milfoils. These are available on the BSBI YouTube channel. The field training days are great fun, but also very educational, and I was extremely pleased when Cilian Roden showed us *Potamogeton alpinus* (Red Pondweed) in a river, and again in a lough, as it was a new species to my life list.



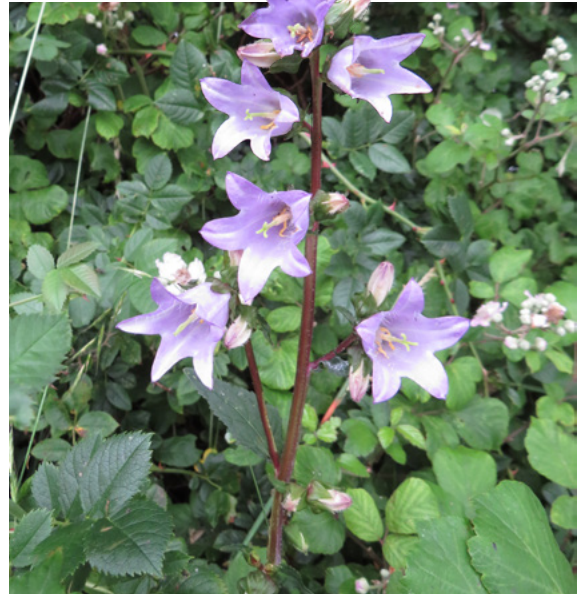
*Dryopteris affinis* subsp. *kerryensis* © Paul Green

## News from around the counties:

Jessica Hamilton has re-found *Sambucus ebulus* (Dwarf Elder) and *Parentucellia viscosa* (Yellow Bartsia) for hectads in Co Kerry where they were last reported before 1969. In the east of Co Cork, Finbarr Wallace found *Euphrasia tetraquetra* (Western Eyebright) on the sea-cliffs at Ballylanders, otherwise only known in Co. Cork from the southwest. Rather alarming from the neighbouring county of Waterford is *Crassula helmsii* (New Zealand Pigmyweed) being found in large quantities along the River Blackwater at Cappoquin, otherwise only known from one other site in the county.

In Antrim, another *Crassula*, this time *Crassula tillaea* (Mossy Stonecrop) has been found new for the county at Newforge in Belfast. This tiny little plant is spreading in Ireland, like it is in many parts of the UK. David McNeill also reports that *Vicia lathyroides* (Spring Vetch) has been found at Waterfoot, which is a new site, and only the second post-2000 record for Co Antrim.

*Campanula trachelium* (Nettle-leaved Bellflower)  
© Lisa Dolan



Staying in the same county, David tells me that Ric Else and Hazel Watson have carried out an amazing *Ajuga pyramidalis* survey on Rathlin Island, recording over 700 flowering spikes this year. Still in Northern Ireland, Graham Day reports that *Polypogon monspeliensis* (Annual Beard-grass) has been found new for Co. Down in Belfast by Jake Dalzell. While Graham was in the Mourne with Valerie Macartney, they found *Vaccinium oxycoccos* (Cranberry) new for the area. This is in itself surprising as the Mourne have been very well recorded over the years. Graham Day also reports that *Asplenium trichomanes* subsp. *trichomanes* (Maidenhair Spleenwort) has survived the fire of April 2021 in the Black Stairs, while it would seem the *Lycopodium clavatum* (Stag's-horn Clubmoss) has perished. On the Co Tipperary side of the Knockmealdown Mountains, on a slope below the road leading from the Vee, Alison Evans and Roger Golding found a large population of *Dryopteris affinis* subsp. *kerryensis*, a new species for the county, and the second county record for *Dryopteris affinis* subsp. *cambrensis*. Also in Tipperary, Lisa Dolan had found *Campanula trachelium* (Nettle-leaved Bellflower) scattered along either side of a small river at Killavalla, east of Borrisokane, this being the first hectad record since Robert Praeger saw it in 1900.



*Vaccinium oxycoccos* (Cranberry) © Graham Day



On a remote shingle beach south of Rossaveel in Co. Galway, Aoife Boyd found two plants of *Lathyrus japonica* (Sea Pea), only the second record for Co Galway. In Co Wexford, Paula O'Meara re-found *Orobanche rapum-genistae* (Greater Broomrape) on the margin of Killoughrum Forest, where it once occurred in large numbers and was last reported in 1917 by Charles Moffat. Still in Co Wexford, I found *Trifolium suffocatum* (Suffocated Clover) at Ferrycarrig Castle, a new clover for Ireland.

Two of the best finds to report are by Ciarán Byrne – of *Epipactis phyllanthos* (Green-flowered Helleborine) from an oak, ash and hazel wood at Dunsany, Co Meath, and Andrew Malcom had five from a wooded road verge at Villierstown, Co.

Waterford, as it is a new orchid for both counties. Ciarán also had *Atropa belladonna* (Deadly

Nightshade) in the wood

at Dunsany, another new species for Co.

Meath. Andrew has been busy updating sites of rare species

on the Waterford side of

the Knockmealdown

Mountains, including

*Neottia cordata* (Lesser

Twayblade), where

he counted over 400

flowering plants

under the conifers.

And finally, it can

sometimes be fun doing the research

to see when a plant was first

reported from a county. As

I was driving through Co

Laois, near Stradbally, I noticed

a patch of *Senecio sarracenicus*

(Broad-leaved Ragwort) on the

top of a roadside bank. The BSBI

database implied it was a new

county record. Both A catalogue

of alien plants in Ireland

(Reynolds, 2002) and Census

catalogue of the flora of Ireland

(Scannell & Synnott, 1987) listed

it as occurring in Co Laois.

*Epipactis phyllanthos* (Green-flowered Helleborine) © Andrew Malcolm



*Neottia cordata* (Lesser Twayblade) © Andrew Malcolm

Sylvia Reynolds came to my rescue and dug out the information, and to our surprise it was found by Thomas Chandlee in two places near Stradbally, mentioned in *Cybele Hibernica* (Moore & More, 1866). It is expected that publications since *Cybele Hibernica* carried the record forward, but authors hadn't actually seen Broad-leaved Ragwort growing in the county. Is my record the first Co. Laois record since 1866?



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Female Hairy-footed Flower Bee in Harold's Cross. © Martin Molloy

## Bees

2022 has been another good year, with lots of bee records submitted across the spring and summer. Up until the end of September we have received 4,200 records, with these currently being validated. Special thanks to the small group of people who have microscope facilities and are actively recording solitary bees. We greatly appreciate your efforts in improving our knowledge base with new recent records.

We've had two very exciting finds this year. The Hairy-footed Flower Bee (*Anthophora plumipes*) has migrated from Britain to set up home in Ireland for the first time. The first sighting was made by Mary Molloy in her garden in Harold's Cross, Dublin, on March 27th 2022. And then in June, *Nomada lathburiana* was found for the first time by Adam Mantell at Bloody Bridge in Co. Down.

Before these two new 2022 arrivals, the last bee to arrive in Ireland was the Ivy Bee (*Colletes hederæ*). It was first spotted at the Raven Nature Reserve in Wexford in October 2021. It's a solitary bee with an autumn flight period, to match the flowering of its favourite plant, Ivy. This year, the National Biodiversity Data Centre was delighted to collaborate with Prof Francis Ratnieks (Sussex University and Ivy Bee expert) on a survey of the bee in the southeast. As this is written, data is still being gathered, but healthy populations of the bee have been found around the Raven and Curracloe, and it looks like the bee has slightly expanded its range in 2022.

The latest bumblebee to arrive in Ireland is also expanding its range. The Tree Bumblebee was first recorded from Dublin in September 2017 and was then reported from Belfast in 2019. Despite a slower start in the South, it now appears to be expanding. Data is still being validated, but it appears to now be known from counties Antrim, Down, Armagh, Dublin, Kildare, Monaghan and Westmeath. In good news, the Tawny Mining Bee (*Andrena fulva*) had another good year. That's the lovely spring-flying solitary bee that reappeared from extinction in 2012. It is now known from counties Dublin, Wicklow, Kilkenny, Tipperary, Kildare and Carlow.

We've continued to receive small numbers of sightings of our rarest – Great Yellow Bumblebee, Red Shankled Carder Bee, Shril Carder Bee. In more

worrying news, the latest analyses from the All-Ireland Bumblebee Monitoring Scheme (2012-2021) shows that the Large Carder Bee (*Bombus muscorum*) is in serious decline. In response to previous warnings from the scheme on this species, we have recently published a guide within the All-Ireland Pollinator Plan on how local communities can help protect it: <https://pollinators.ie/helping-endangered-pollinators/>

In very positive news, the National Biodiversity Data Centre launched a National Pollinator Monitoring Scheme in 2022. This is thanks to funding from the Department of Agriculture, Food and the Marine and the National Parks and Wildlife Service. It will complement our existing citizen science initiatives. This year, 36 sites were monitored, and the data will now be analysed and ultimately feed into the national bee and hoverfly databases. In future years, we look forward to learning what wild bees turn up across this diverse network of monitoring sites!

Lastly, for those interested, we have recently published a solitary bee poster, to complement the existing poster on Ireland's bumblebees. Climate change has been making it difficult to stay on top of bee numbers as new species arrive, but this is correct as of August 2022! You can access it here: <https://pollinators.ie/resources/>



**Dr Úna FitzPatrick**

SENIOR ECOLOGIST,  
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# Mapping biodiversity-rich grasslands

Semi-natural grasslands support a wealth of biodiversity, store carbon, help to filter and store water, as well as many other functions. Unfortunately these grasslands have been largely lost from vast swathes of the country, such as much of the south and east. The remaining pockets of semi-natural grasslands are to be treasured and protected, but it can be challenging to recognise and appropriately manage these unassuming biodiversity hotspots.

## NPWS grassland surveys



The National Parks and Wildlife Service online map viewer

Most of the surveys that map semi-natural grasslands at a national scale have been commissioned by the National Parks and Wildlife Service (NPWS). These help to build a picture of location, type

(e.g. wet/dry, acid/calcareous, etc.), management, and threats the grasslands may face. The most comprehensive survey to date took place between 2007 and 2012, when almost 1,200 grassland sites across 26 counties were surveyed. Some of the findings include:

- Wet grassland was the most extensive grassland type, covering 55% of the surveyed area, and was most frequent in the west of the country; other grassland types were all less than 20%.
- Grazing was the main management, recorded at 91% of sites, with cattle the most frequent grazers (72% of sites).
- Approximately 5% of the area surveyed had a grassland type that corresponds with those habitats listed for protection on the EU Habitats Directive Annex 1, and Clare, Donegal and Offaly had the highest proportion of these.
- The most frequently encountered negative issues related to under-management or abandonment.
- 45% of grassland sites surveyed were less than 10ha.
- A 'conservation scoring' system was devised, allowing sites and counties to be ranked. The highest scoring were Sligo, Leitrim and Limerick, and the lowest scoring were Wicklow, Waterford, Cork and Wexford.

The NPWS has created a user-friendly online map viewer for this survey, so that anyone can see the mapped grasslands (go to <https://tinyurl.com/mr2j3mf3>, and choose 'Irish Semi-natural Grassland Dataset'). Why not take a look at what grasslands were surveyed in your county? Use the legend at the top left hand side to see the grassland types and to get further information, just click the links at the top of the screen to download the project report, or survey data.

These are also available from the publications and data pages of the NPWS website ([www.npws.ie](http://www.npws.ie)). It's important to note that there are further areas of semi-natural grasslands outside what's covered – the areas shown are just sample areas visited by the survey teams.

There are a number of other NPWS-funded studies, past and current, which involve revisiting a suite of sites with high-quality grasslands to monitor how they are doing. Unfortunately, the results highlight that many sites continue to be lost or degraded in quality. These sites may be abandoned, forested, drained, or ploughed and reseeded. In fact, approximately 30% of our remaining species-rich 'lowland hay meadows' were lost over a six-year period, and a similar fate befell our hugely species-rich calcareous grasslands. These results highlight the need for the protection and appropriate management of these grasslands. It does not help that approximately 80% of our semi-natural grasslands exist outside of our Special Areas of Conservation designation network.

Other surveys to watch out for online soon include the 'Floodplain and Callows Grasslands in Ireland', detailing these exceptionally valuable grasslands, and the exciting 'Review of Four Upland/Uncommon Grassland Habitats'. In late 2023/early 2024, the ongoing national grassland monitoring project will also update information on some key sites.

To learn more about grasslands, here are some excellent webpages to visit and explore:

- [GreatIrishGrasslands.ie](http://GreatIrishGrasslands.ie) – the new website, including a 'Grasslands Trail', where you can go and experience great grasslands for yourself, and a good resources section, too.
  - <https://bsbi.org/irish-grasslands-project> - excellent webinar series on grass ID, highly recommended for those wishing to learn to identify grasses.
  - <https://www.npws.ie/research-projects/grasslands>
- Or follow @GrasslandsIrl on Twitter for news and updates



Maria Long is an Ecologist currently working in Conservation Planning at NPWS. Until recently she was the Grassland Ecologist, overseeing monitoring, management and designations for these habitats.





# New Invasive Alien Species of Union Concern

National Biodiversity Data Centre

A Heritage Council Programme



Invasives.ie  
Invasive Alien Species in Ireland



Following a decision by the European Commission in July 2022, there are now 88 Invasive Alien Species which are considered of Union Concern. The 22 new species added to the 'Union List' are one alga, four plants and 17 animal species.

Fortunately, Himalayan Knotweed (*Koenigia polystachya*) is the only species from the new list that currently occurs in Ireland. It was first recorded in Ireland in 1928, but has since spread throughout the country.

The Union concern list is at the core of the European Union's Invasive Alien Species Regulation 1143/2014 requiring EU wide concerted action to prevent, minimise or mitigate their adverse impacts.

Member States are obliged to take action on all species included on the list. These actions, depending on their status, include prevention, early detection and rapid eradication of new arrivals, and management of species that are already widespread.

The work undertaken by the National Biodiversity Data Centre in managing information and coordinating actions on invasive alien species is central to implementation of the Invasive Alien Species Regulations. This work supports, and is funded by, the National Parks and Wildlife Service.



**Electric Ant**

Joe MDO at iNaturalist



**Rusty Crayfish**

USFWS, WikiCommons



**Eastern Mosquitofish**

MarshBunny, WikiCommons



**Black Imported Fire Ant**

Lucas Rubio at iNaturalist



**Eastern Kingsnake**

Glenn Bartolotti, WikiCommons



**White Perch**

Cephas, WikiCommons



**Mummichog**

Tim Emhoff, iNaturalist



**Staff Vine**

Patrick Alexander, Flickr



**Red Vented Bulbul**

Charles J. Sharp, WikiCommons



**Rugulopteryx okamurae**

Frédéric ANDRE, iNaturalist



**Finlayson's Squirrel**

Rushenb, WikiCommons



**Northern Snakehead Fish**

Brian Gratwicke, WikiCommons



**Red imported Fire Ant**

© Ali and Brice, iNaturalist



**Chital Deer**

T. R. Shankar Raman, WikiCommons



**Tropical Fire Ant**

anneveleones, iNaturalist



**African Clawed Frog**

Brian Gratwicke, WikiCommons



**Western Mosquitofish**

© Jon McIntyre, iNaturalist



**Water Lettuce**

lclplinske, iNaturalist



**Bushy Needlewood**

Krzysztof Ziarnik, WikiCommons



**Black Bullhead**

© Gonçalo Fernandes, iNaturalist

For more information visit [www.invasives.ie](http://www.invasives.ie)