# Step into Nature

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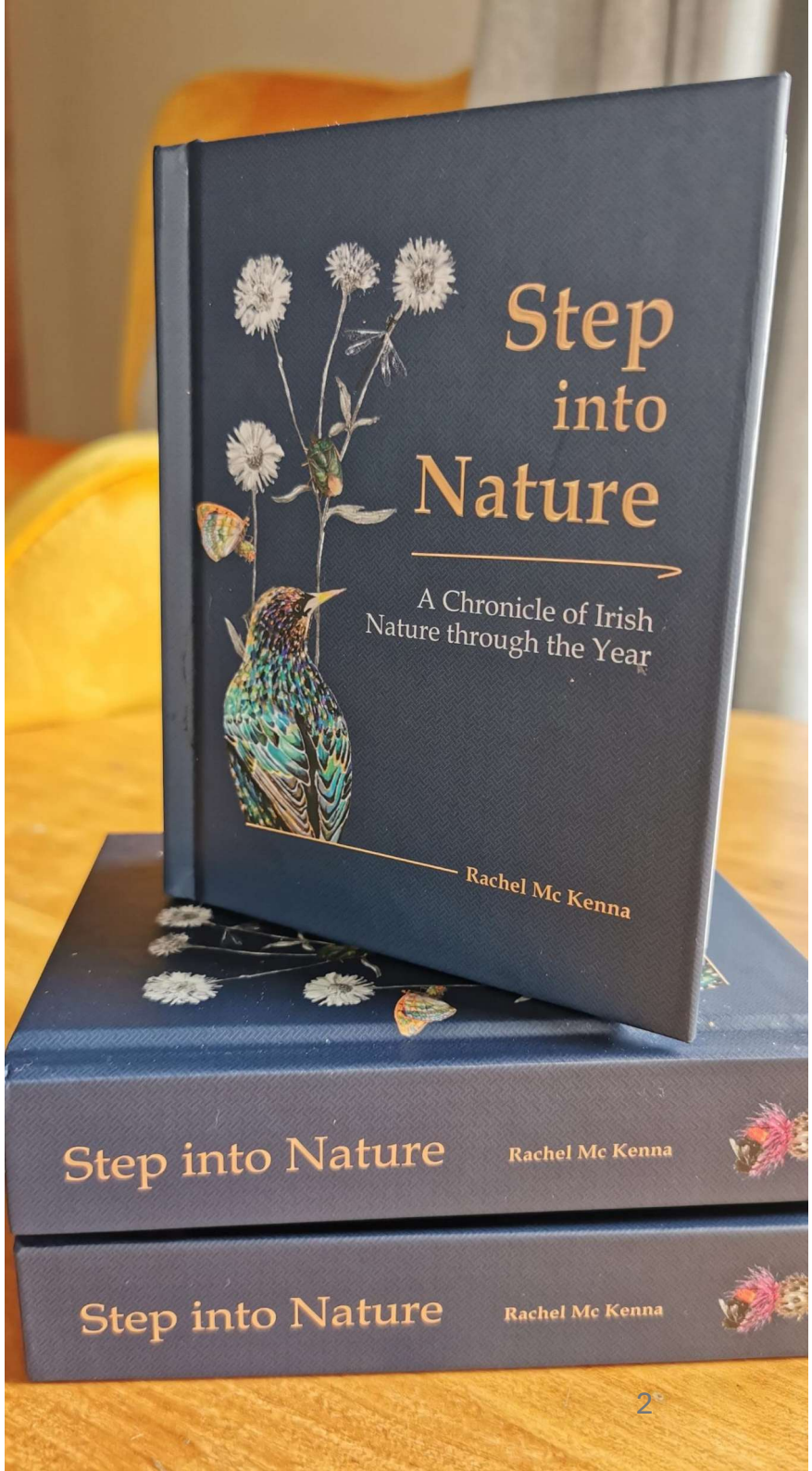
BSBI Botanic Gardens 2025

April to May

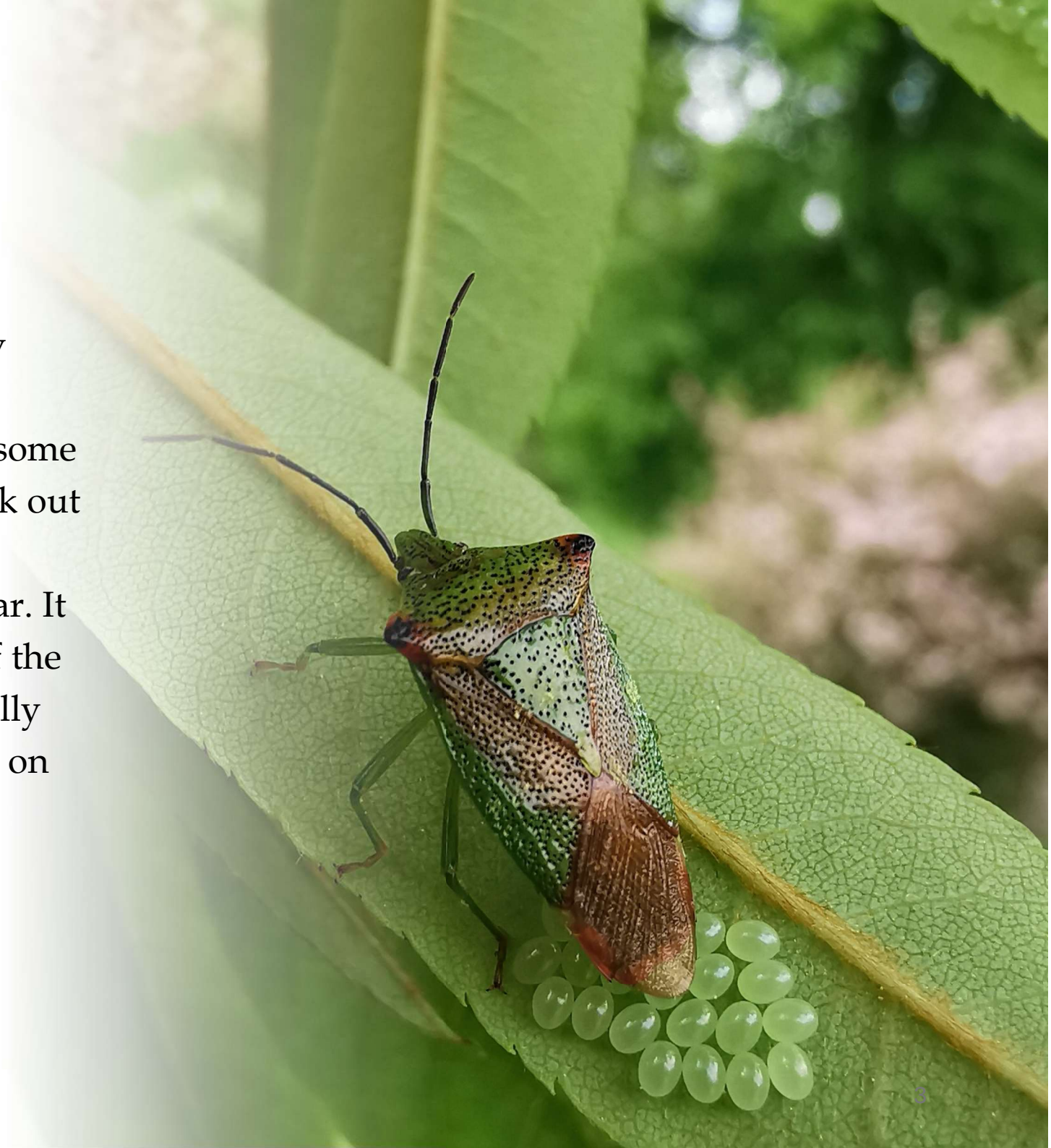
# Step into Nature

*Step into Nature* is a personal awakening and an appreciation of the astounding beauty and complexity of nature around us.

It has evolved over a five-year period, from a general awareness to a thirst for more information, greatly helped by so many patient experts and a key selection of wonderful books.



It is set out as a weekly diary to provide a chronological view of some of the finds we can look out for in the weeks and months ahead each year. It covers briefly, a mix of the flora and fauna generally found in the garden or on local walks.

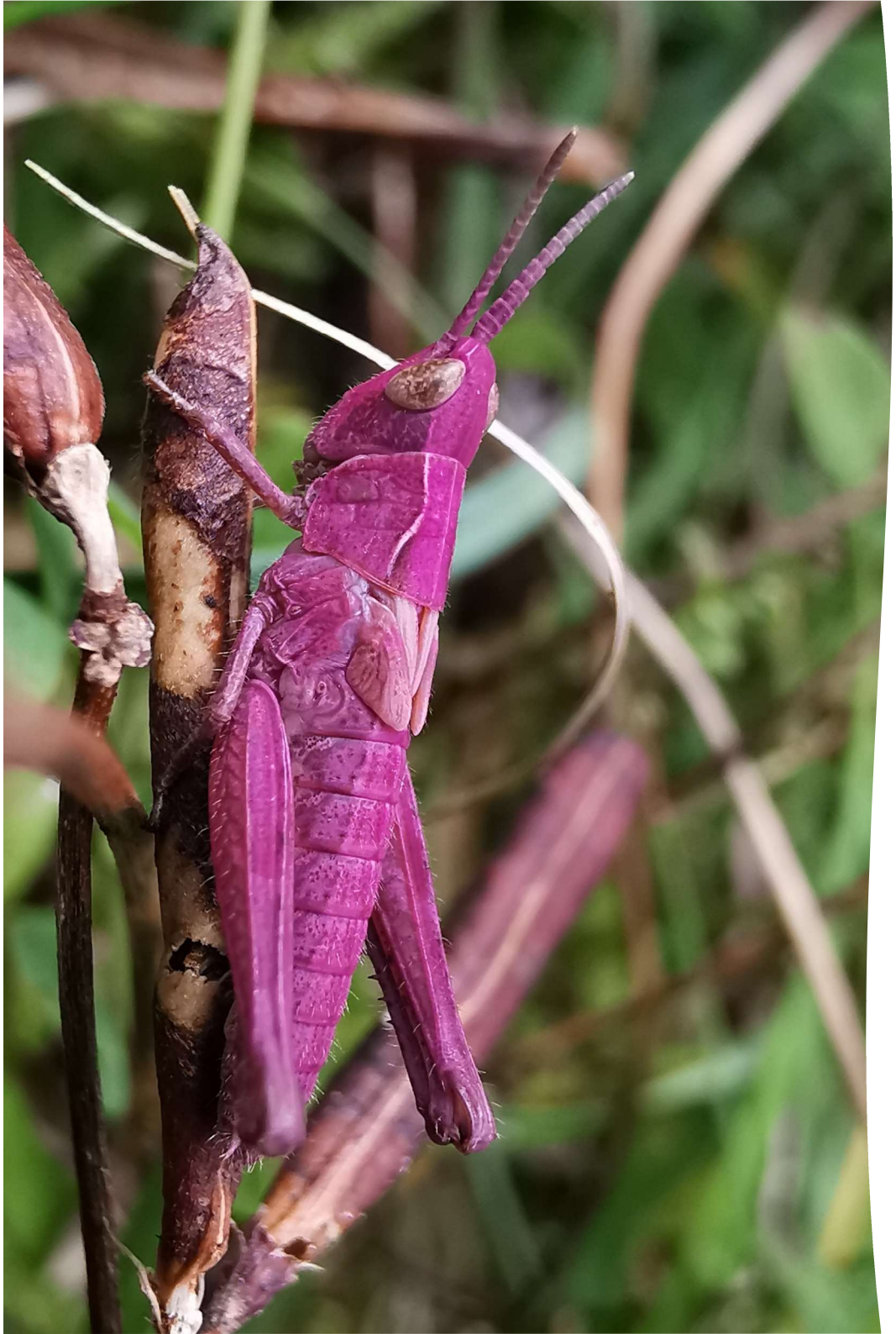


# Background

- The book itself is **based on the superb publications of the 18, 19 and E20c**, by nature writers
- Books that fit comfortably in the palm of your hand.
- Step, in particular, has a wide range from detailed books
- This publication **seeks to emulate that undertaking in an Irish context**, highlighting the vast range of incredible species found locally.
- While predominantly set in Offaly, most of the highlighted species can be found throughout Ireland.
- Each plant or insect was recorded on the National Biodiversity Data Centre (NBDC) which assists with national monitoring.
- My own records over the last five years were used to compile the book.

# Record your finds: National Biodiversity Data Centre https://records.biodiversityireland.ie/


- Mapping your sightings assists with national monitoring
- Keeps a register of all your observations
- Highlight where records may be found
- Show how many are recorded in your county
- County firsts!!



# County Firsts!

- Sometimes when out and about we can come across a species that has not yet been recorded in the county
- Common Green Grasshopper with erythrism, a genetic mutation, resulting in this bright pink form – Finnamore Lakes

# Ladybirds –
## Larch Ladybird (Offaly 1st, 2024)

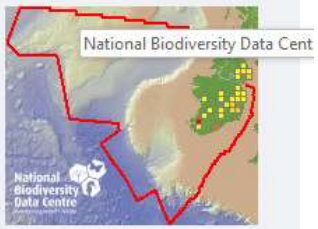
idecta obliterata) - Species information displayed is based on all datasets.



| | |
|---|---|
| Scientific Name | Aphidecta obliterata |
| Common Name | Larch Ladybird |
| Synonyms | N/A |
| Designations | N/A |
| Abbreviation | apobl |
| Authority | (Linnaeus, 1758) |
| Group | insect - beetle (Coleoptera) |
| Rank | Species |
| Number Of Records | 150 |
| Number Of 10Km Squares | 75 |
| Number Of 50Km Squares | 45 |
| Oldest Record | 30/07/1995 |
| Newest Record | 24/10/2024 |
| Phenology - earliest record (across all datasets) | 1 January (recorded in 2024) |
| Phenology - latest record (across all datasets) | 26 December (recorded in 2021) |
| Species Profiles | |

# 18-spot Ladybird (2024)

## 107 Irish Records – County first

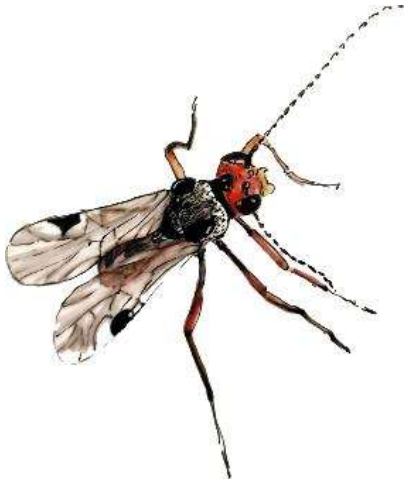




# Eyed Ladybird

There are many ladybirds to be found in the garden, on bogs or in woodlands, generally emerging from hibernation in the spring. Females lay their eggs after mating, which hatch within a few days. The larvae moult three times over 2-4 weeks, pupate and emerge as adults a few weeks later.

Eyed Ladybird up to 8.5mm, it is larger than the more common 7-spot and twice the size of the yellow and black 14-spot. The 18 black spots on the Eyed Ladybird are ringed with yellow, making it easily distinguishable. Its large pupa is seen resting on a Birch leaf.

14-spot Ladybird, *Propylea quattuordecimpunctata,* (3.5-4.5mm), with cocoon of wasp *Dinocampus coccinellae*



Sketch of parasitic wasp *Dinocampus coccinellae,* (3-4mm, spring and summer)

Some insects have a different approach to creating a suitable environment for their developing offspring. This 14-spot ladybird has been parasitised by the wasp *Dinocampus coccinellae*. The wasp's egg, laid in the underbelly of the ladybird, takes up to a month to mature. It then emerges (after paralysing the host) and pupates in a cocoon attached to the ladybird's leg. Just over a week later, the adult wasp emerges and, allegedly, 25% of the ladybirds revive.

This photo shows the cocoon underneath which has popped open allowing the adult wasp to emerge.

# Mirid Bugs


*Adelphocoris seticornis* (38), on Vetch


*Heterocordylus) tibialis* (35), Broom

# April

Woodland walks are at their most pleasant during April, as many beautiful and prolific flowers spring forth. Most trees are still without leaves and the plants gratefully avail of increased sunlight, providing vibrant, fragrant carpets of Violets, Bluebells and Celandine. The lightly scented, graceful **Wood Anemone** flowers from the end of March in broad-leaved woodlands with slender-stalked palmate leaves (divided in five).

The flowers visited by bees, beetles, flies and bugs, provided a vast range of former human uses. Flowers mixed with oil were said to assist hair growth; it was used to treat leprosy; and chewing the roots was said to assist with removal of phlegm.

# Bluebells and Wild Garlic

As Lesser Celandine continues flowering in large, vibrant swathes and Bluebells are starting to peep out, we also hope to find Wild Garlic or Ramsons.

It is a vigorous plant growing in hedgebanks and across damp woodland floors. The pungent smell of garlic will announce their location before we even see the long, elliptical, basal leaves or the bright white, star-shaped flowers. Leaves add flavour to salad and make a wonderful pesto.

They are a nectar rich flower, much frequented by bees. But it is always worth a closer look at the bees as one may, in fact, be a hoverfly. There are 180 species of hoverfly or syrphids in Ireland and many mimic bees or wasps. They feed on nectar and pollen, particularly yellow and white flowers. We will first look at the Ramsons Hoverfly, *Portevinia maculata*, which is confined to woodlands and old hedgerows where Wild Garlic grows. Short, stubby, orange antennae and an abdomen with three wide grey bands, (two broken), allows us to identify this hoverfly with some confidence.

# Hoverflies

A crisply marked *Chrysotoxum bicinctum*, (7-10mm, June to September), on Birch at Turraun Bog

This particularly smart *Chrysotoxum bicinctum* rested on Birch at Turraun Bog, along a woodland walkway. They are also found in open grassland. A wasp mimic, it has distinguishing yellow bands on a relatively squat, broad abdomen with dusky chocolate markings to the wings, and notably long antennae (for a hoverfly).

# Bog Beacon

Bog Beacon is one of the earthtongue fungi, and while many grow in grass or leaf litter, this uncommon variety grows in bog streams, ditches or in Sphagnum Moss. It is gregarious (growing in groups) and it provides an essential service, breaking down plant remains. The vibrant yellow-orange head, circular or oval shaped, rises to no more than 4cm on a translucent stem. They appear as if by magic, like a tiny torch over the dark waters of the bog at Killaun.

Bog Beacon, *Mitrula paludosa*,
(4cm, spring to early summer),
at Killaun Bog

# Spiders

Raft Spider, *Dolomedes fimbriatus*, (9-20mm), at Killaun Bog

Our largest Irish spider is the Raft Spider, shy, velvety, dark-brown, with two pale yellow longitudinal stripes on the side of the thorax and abdomen, and light spots scattered over the abdomen. It sits beside bog pools and lakes with its front legs on the water, surface feeling for the vibrations of potential prey moving through the water. It plunges into the water to grab them when they come near enough. It can catch and eat small fish and froglets.

A somewhat similar, paler spider, grey to orange-brown with longitudinal stripes, is the Nursery Web Spider. Both species carry several hundred eggs in a large white sack under their body and later guard the hatched spiderlings in a copious tent-like web. We have often spotted them soaking up the sunshine - Raft Spiders along the boardwalk at Killaun and Nurseryweb Spiders on large Cranesbill or Nettle leaves in the garden.

Nursery Web Spider, *Pisaura mirabilis*, (10-15mm), on garden Cranesbill, it is also common on open bog

# May

The mesmerising Emperor Moth, *Saturnia pavonia*, (27-41mm, April to May), Killaun Bog, May

# Puss Moth

What a truly majestic creature with wings like folded chocolate and vanilla ice cream. This spectacular Puss Moth was resting on a tree by the moth trap, attracted to the light but far too regal to associate with other moths inside. A large white, fluffy moth with black spots around the thorax (between head and abdomen) and a stunning array of steep, wavy grey lines along the forewing with golden longitudinal strips. This was rather early as their normal flight times are May-July, when they visit gardens, hedgerows, woodland and bogs.

We will look ahead through their ever-changing life cycle to the somewhat startling larva seen July-September, feeding on poplars, Willows or Aspen (particularly saplings).

Puss Moth (29-38mm, March to July),
*Cerura vinula,* garden, March

Initially, the larva is a tiny black caterpillar with two long straight tails, which, when disturbed, extend red filaments. As the larva grows, becoming red then green in colour, by its final instar it has developed into the most extraordinary caterpillar.

Green with a long brown patch, trimmed with white along its back, it retains its two tails. When alarmed, the head can be drawn back into its body to the red ring next to it with a slit at the base from which acid can be squirted. Two dark spots look like staring eyes, which may deter hungry birds, while the lashing tail attempts to keep off its parasite, a large Ichneumon wasp.

# Small Chocolate-tip

Small Chocolate-tip caterpillar, *Clostera pigra*, (May to July and September to October), on Willow, Turraun Bog

The Small Chocolate-tip moth, at home in open, damp places, lakes, woodland and heathland. Adults are double-brooded and found in neighbouring counties, so there was no reason why they should not be in Offaly. An alternative plan is to look instead for the caterpillars. They hide by day in a larval retreat of spun leaves (usually Eared Willow), feeding under safety of darkness.

Not easy to spot as the spun leaves can look like a single leaf. However, this one was discovered by the tell-tale signs of frass (caterpillar poop), small brown-black blobs on the leaf below. Strange as it may seem, this is a great way of finding all sorts of caterpillars. What a delight to find this dark caterpillar with its broad, yellow dorsal stripe and tufts of white hair, first one at Turraun and then at Killaun Bog.

*Plutella porrectella*, cocoon, garden, September

*Plutella porrectella*, (7-8.5mm, April to October), adult, garden, October

Dame's Violet, *Hesperis matronalis*, (90cm high, flowers 15-20mm, March to August)

Encouraging biodiversity in your garden can be as simple as planting some seeds, Oxeye Daisy, Teasel, Honesty or Dame's Violet.

A special guest on Dame's Violet is a pale, perky micro-moth with long, forward facing antennae, *Plutella porrectella*. It is double brooded with larvae feeding during April-May and June-July.

The moth flies during May and again in July-August and while predominantly nocturnal, can be found on Dame's Violet during the day.

These garden finds in 2021 were the first time the moth was recorded in Offaly, and now we look forward to finding them every year.

# Wildflowers – a small selection

Snowdrop, *Galanthus nivalis,* (7-15cm high, January to March)

Winter Aconite, *Eranthis hyemalis,* (15cm high, 2-3cm flowers, January to February)

Blackthorn, *Prunus spinosa,* (flowers 10-15mm, March to May)

Wood Anemone, *Anemone nemorosa* (20cm high, flower 2-4cm, March to May)

Lords-and-Ladies, *Arum maculatum,* (up to 25cm high, flower April to May)

Cuckooflower, *Cardamine pratensis,* (40-60cm high, flower 12-20mm, April to June)

Bee Orchid, *Ophrys apifera*, (40cm high, flower c.30mm, June to July)

Bog Asphodel, *Narthecium ossifragum,* (30cm high, flower c.13mm, June to August)

Grass-of-Parnassus, *Parnassia palustris,* (30cm high, flower 15-20mm, July to September)

Autumn Lady's-tresses, *Spiranthes spiralis*, (10cm high, flower c.2mm, August to September)

# Lords-and-Ladies, *Arum maculatum*

Lords-and-Ladies, *Arum maculatum*, (up to 25cm high, flower April to May), spring

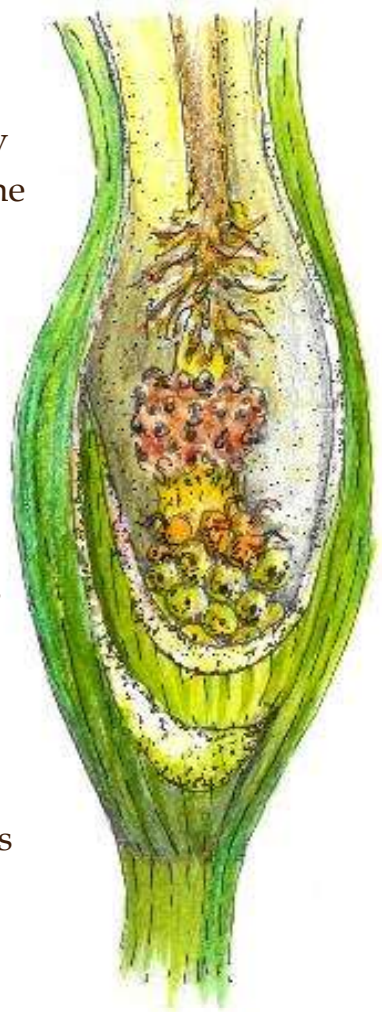
Owl Midge, *Psychodidae* sp. (4.5mm wingspan), garden

Lords-and-Ladies, *Arum maculatum*, (berries up to 5cm, August to October), garden in autumn

A central stalk rises up and unfurls as an elegant ellipsoid inflorescence… These flowers have a **distinctive, nasty smell**, emitted around midday, which the Owl Midge finds extremely attractive, as it **mimics cow-dung** where they lay their eggs. The midge enters the outer hood, and starts its journey to the hidden chamber below. First it must push through band of hairs (sterile male flowers), then past the anthers (fertile male flowers), to reach the ripe pistil below; a group of both sterile and fertile female flowers (yellow carpels).

The midge travels from one plant to another, carrying out the vital pollinating function. If this is the first plant the midge has been to and hence cannot shed pollen from another plant onto the pistils, the band of hairs provides an inflexible barrier, preventing the midge from leaving.

Once pollen has been brought in, by another more adventurous midge, the stamens open, shedding their pollen on the midge. The hairs above then shrivel allowing any trapped midges escape, around two days later. **While this may not seem too long, an adult midge only lives for a week.**



Lords-and-Ladies, *Arum maculatum*, chamber cross section, below flower

# Butterflies

Brimstone, *Gonepteryx rhamni*, (60-74mm, March to November), on Bluebell, garden, April

Orange-tip, male, *Anthocharis cardamines*, (40-50mm wingspan, April June)

Orange-tip, female

Green-veined White, *Pieris napi*, (45-50mm, April to September)

Small White, *Pieris rapae*, (c.50mm, April to October)

Wood White, *Leptidea* sp., (c.42mm, April to July)

Dingy Skipper, *Erynnis tages*, c.39mm, May to June)

# Marsh Fritillary Butterfly

The Marsh Fritillary flies from **May to June** in bogs, grassland and eskers. It is a stunning butterfly, beautifully marked with dark orange, cream and contrasting black. The hindwing is more subtle without any black. They may be found basking in early morning sunshine.

**Females lay batches of yellow eggs on the underside of Devil's-bit Scabious leaves.** Within a month, the eggs turn red and hatch. Larvae spin a communal nest in which they can feed and grow in relative safety.

By early October, they have moved, together, to fresh plants where they will overwinter beneath vegetation. Towards the end of February, the black spiny larvae are sufficiently warmed up and become active again. By April, they pupate in a dramatic white case with black and yellow markings.

# Green Tiger Beetle

Usually seen (and heard) on a sunny day as a blur of green whizzing past.

A common species along bog walks, it is a voracious predator of small insects, predominantly ants, by way of its sickle-shaped mandibles (jaws).

Deep, perpendicular tunnels in the ground contain their larvae who wait at the opening for passing prey, seizing them with hook-jaws.

# Longhorn Beetle

Is this not the most magnificent creature? An imposing Two-banded Longhorn Beetle gripping the tip of a Birch branch, which was swaying precariously in high winds at the Cranberry Bog. It lays eggs in decaying pine trees, over two years, larvae bore deep tunnels until ready to pupate.

Two-banded Longhorn Beetle, *Rhagium (Hagrium) bifasciatum*, (12-22mm, March to July), Cranberry Bog, Gallen

**Four-banded Longhorn Beetle** is vibrantly marked with four rectangular golden bands to each side of the elytra, set against a black background. What a treat to spot this one at Turraun Bog, who stayed perfectly still, allowing a photograph.

Females lay eggs in crumbling, dead deciduous wood, where the pale, thin-skinned larvae will live. Larvae gnaw passageways through timber with their sharp mandibles, later pupating in the tree.

Adults then make an oval exit hole from the timber. They are active during the day, particularly if sunny when they may be seen in flowers seeking pollen.

Four-banded Longhorn Beetle, *Leptura quadrifasciata*, (body length 15-27mm, June to July), Turraun Bog

# Crows

- The crow family is full of dark boisterous and highly intelligent birds. Largest and seriously imposing is the **Raven**, bigger even than our Buzzard, (November - W3). It is all-black with a thick dark bill, and the only crow to have a wedge-shaped tail in flight. A shy species, it pairs for life and breeds in uninhabited woods (or a cliff edge) from early spring. They make an astounding variety of calls.
- **Rooks** have glossy plumage with a blue-purple sheen, a distinctive peaked crown. Adults have a bald patch at the base of their bill, making their bill look significantly longer. They have loose feathers on their belly around their legs, giving the appearance of 'shaggy trousers'.

Raven, *Corvus corax,* (length 55-65cm, common all year, nesting January to February), feed on carrion, eggs, insects

Rook, *Corvus frugilegus,* (46-47cm, very common all year), feed on root crops, berries, insects, slugs, worms

Jackdaw, *Corvus monedula,* (32-35cm, very common all year), feed on insects, slugs, berries, fruit, occasionally eggs

Hooded Crow, *Corvus cornix,*
(45-50cm, very common all year), feed on carrion, eggs and young chicks, insects

- Familiar nests or rookeries are visible in treetops and their boisterous call is so evocative, when roosting at dusk. These roosts can contain thousands of individual Rooks during the winter months, resulting in a formidable spectacle and a cacophony of sound.
- They forage alongside **Jackdaws**, who are noticeably smaller. Sooty grey in appearance with pale ash-grey neck and back of the head, Jackdaws have distinctive ice blue eyes.
- The **Hooded Crow** occurs throughout Ireland. Similar in size to the Rook, with two-tone colouring of black and pale grey, large roosting flocks visit parks and gardens in the winter. They nest in trees and old buildings. Other members of the crow family include the Magpie, Jay and Chough (confined to coastal areas).

# Sawflies

*Cimbex femoratus*, larva, October

*Cimbex femoratus*, (20-28mm, May to August)

Sawflies are a broad-ranging, fascinating group with numerous species in Ireland. Many may be encountered casually as either adults or their larva, munching on leaves. They vary from solitary feeders such as the **large *Cimbex femoratus*** larva which feeds on Birch, to the smaller gregarious *Euura pavida*.

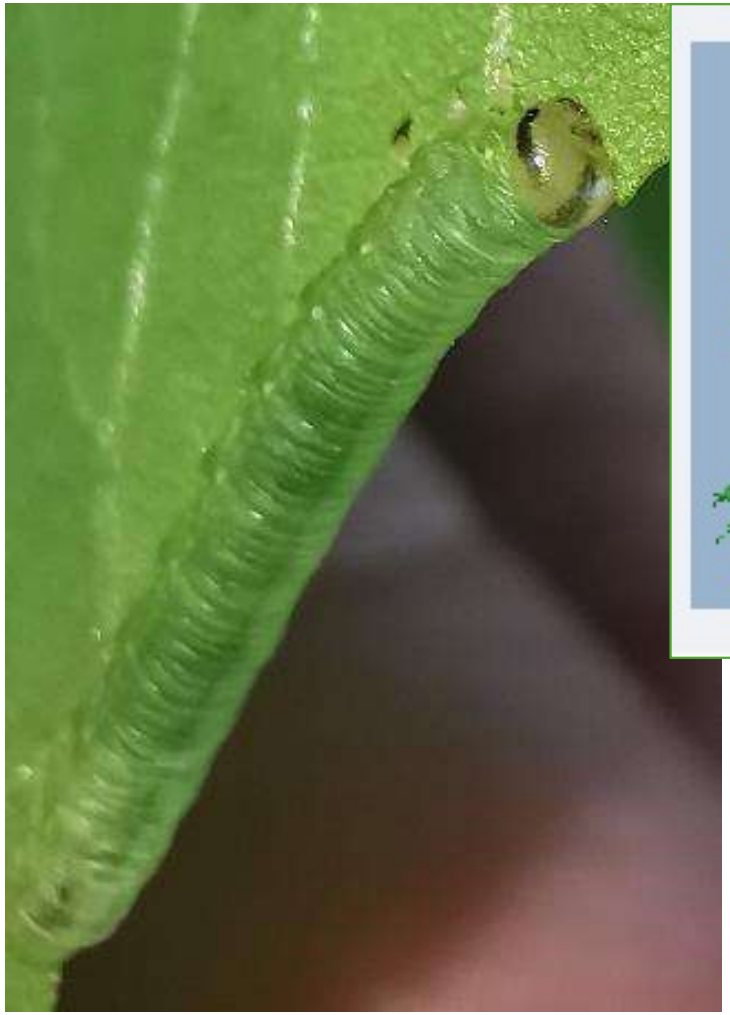
The distinctive (at this instar), large *Cimbex femoratus* larva was first encountered at the Cranberry Bog, Gallen, while the vast, magnificent adult rested on a sagging Birch leaf at Clooneen Bog in May.

***Euura pavida***, adult female (6-7mm, May-June + July- Sept), checking for suitable leaf, garden, May

Typical gregarious feeding group on Willow

# A first for Ireland – Sawfly

## *Pristiphora leucopus*




*Pristiphora leucopus* (Hellén)
(Hymenoptera: Tenthredinidae),
a sawfly new to Ireland

A visit to the grounds of Birr Demesne, Co. Offaly will always secure a delightful experience with some form of flora or fauna. The grounds have been home to the Parsons Family for over 400 years, and they have planted it with a rare selection of both native and exotic trees and other plants. All routes around the grounds are world-class, be it parkland, history, riverwalk or formal gardens. On a mid August morning, while ascending the star-shaped moss under the watchful eye of Birr Castle, I investigated a Lime tree (*Tilia*) and with plenty of new growth at the base of its broad, vermicule bark.

Munching along the edges of the leaves were green sawfly larva in bold, unmistakable markings

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# Another first for Ireland – Sawfly

*Pristiphora conjugata*


# Shieldbugs

They are members of the Hemiptera order which includes aphids and planthoppers. The Gorse Shieldbug lays its eggs in two diagonal rows, usually along a Gorse bud. The hatched nymph goes through five instar changes as it develops into adulthood, and the large adult has two colour forms. Predominantly green as they emerge in the spring, the late-summer generation has purple-red markings which darken prior to overwintering.

Gorse Shield bug eggs in April, Killaun Bog

Gorse Shield bug nymph (April to August) in July, Cranberry Bog, Galken

Gorse Shield bug, *Piezodorus lituratus*, a late-summer adult in February

Gorse Shield bug, *Piezodorus lituratus*, (10-132mm, all year). a spring adult in August

# Parent Shieldbug

Parent Shieldbug, *Elasmucha grise*a, (7-9mm, all year), the only Shieldbug to mind her eggs

Early development see May– W4. Final instar family on a Birch leaf, July, garden

Adult form just five days later, July, garden

# Caddisflies and their cases

Caddisflies (Trichoptera) begin life within bog pools ponds or rivers and as soft larvae. For their protection, many create intricate cases out of surrounding plants, twigs, stones or shells. Size is no measure of complexity or beauty.

These ingenious homes allow the tender larva move about the water in relative safety. They first weave a silken tube, gradually attaching available material. The more sturdy head and legs protrude from the front, allowing for movement through the water. *Limnephilus* sp. avail of delicate waterweeds as shown here. As the larva develops and expands in size, it cuts a piece off the rear of the case and makes additions to the front. We will look for the moth-like adults later in the year, June - W2.

Caddisfly case of reeds (Killaun), bi-valve shells (Turraun) and twigs (garden)

28 March 2025

# Caddisflies - adults

*Limnephilus lunatus*, (10-15mm, April to November), moth trap, garden

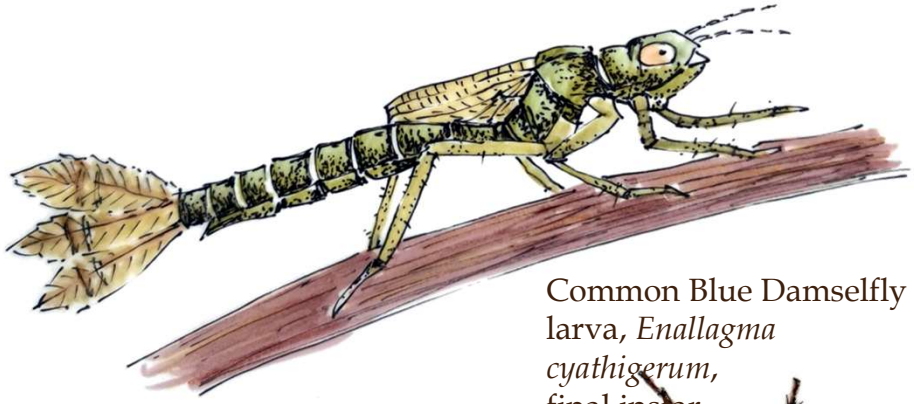
*Glyphotaelius pellucidus*, (12-17mm, May to October), trap, garden

*Limnephilus auricula*, (8-12mm, April to October), moth trap, garden

*Mystacides azurea*, (6-9mm, May to October), by day, Cranberry Bog

A superb longhorn caddisfly, *Oecetis ochracea,* (6-13mm, May to September)

# Dragonflies



Common Blue Damselfly larva, *Enallagma cyathigerum*, final instar

The life cycle of Dragonflies and Damselflies begins with eggs, laid late summer into plant tissue, soil or scattered over the water, depending on the species.

They hatch into larvae, called nymphs, which moult through six and 18 instars (stages). At this stage, they are already predators, catching prey underwater. When ready to metamorphose, they climb up the stems of water plants.

The fully-formed adult waits inside this larval skin. It can take up to three hours for the dragonfly to fully shed its exuvia (larval skin). They then make their first tentative flight, in large numbers from sheltered lakes, ponds or streams. One of the first dragonflies to emerge, in great numbers, is the Four-spotted Chaser.

Four-spotted Chaser larva, final instar

Chaser-type exuvia at Lough Boora

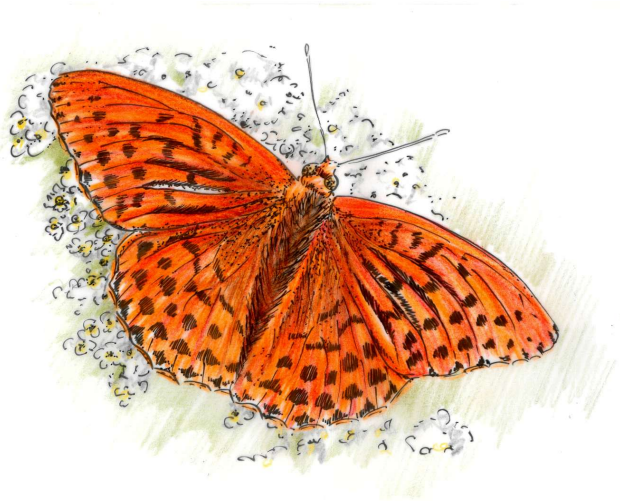
Brown Hawker, *Aeshna grandis,* (73mm, mid-June to September)

Common Hawker (top), *Aeshna juncea*, (74mm, June to October)

# Summary

**Worldwide, we are witnessing catastrophic biodiversity losses**, so it is all the more vital for each individual and community to help in a small but meaningful way to slow down those losses.

We must pay attention to what is around us, record it, tell others, and where at all possible, make efforts to increase biodiversity in our gardens, workplace, schools and communities.



Silver-washed Fritillary

**Each day can provide us with the opportunity to listen to the voice of nature**, which will reconnect us, and instill us with a sense of fulfilment.

By simply slowing down, listening and observing, we can discover miniature wonders of nature. Wonders which fill us with awe when we learn of their complexities. Or those that are so heartachingly beautiful that the memory stays with you, long after the season fades.

Each discovery is a small triumph, and such encounters have extraordinary potency. A walk in nature, of whatever duration allows time for the soul to breathe.

And finally, to end with the insightful words of Edward Step who lent a hand in naming the book, he suggests that, when out on a walk: '*In finding what we sought, we are almost* ***sure to find*** *in addition,* ***something*** *that is new to us.'*

Book may be purchased in local bookshops.
See Mercier Press for further details

Many thanks!