



KILMORE CARE OF CREATION

Inspired by LAUDATO SI' Encyclical Letter written by POPE FRANCIS

ON CARE FOR OUR COMMON HOME

Mad about Moths!

Citizen Science: Moth Survey carried out by the Kilmore Care of Creation Group

When: 24th July 2025

Where: Drumgola, Cavan. Co. Cavan

Habitat: Mature Woodland, Grassland and Hedgerow

Equipment: Skinner Moth Trap

Number of moths processed: 338

Number of moth species identified: 32

Other insects found during moth survey: 19

Findings Recorded: National Biodiversity Centre Ireland

Moths have an intrinsic value and an inherent beauty which may be surprising to some. It may even be debated that moths are not fully known or even appreciated for their important role in the Irish landscape, their interaction with many plants and indeed many animals.

When carrying out surveys on moths, citizen scientists must ensure that the welfare of these amazing insects is top of the agenda. Observation, handling and returning them safely to their habitat must always be of paramount consideration.

In Ireland there are 1500 species of moth. Adult moths are important and critical. They complement the work of daytime pollinators and keep plant populations diverse and abundant. Moths visit flowers from a high number of plants that are also visited by bees, butterflies and hoverflies, but they also interact with plants not commonly visited by these insects. They collect pollen on their furry bodies and tongue. They transfer the pollen to the female parts of other flowers as they feed on nectar. This process is crucial for plant reproduction, leading to the production of fruits and seeds. This process directly impacts

the production of fruit, seeds and nuts for humans, thereby ensuring food security. One important factor to remember is that pollination also ensures healthy ecosystems and this of course is what the web of life is all about. Disruption in one part of the web can have detrimental effects on other parts of the ecosystem. Thus, the whole is greater than the sum of its parts. This is the pattern and interconnectedness of all things; us, the plants, the animal. we must all play our part.

Contrary to opinion, not all moths fly at night. Some are day-fliers only and their colours often give the appearance of a butterfly. Moths and butterflies are actually from the same family, indeed, they're from the same order of insects. Moths use subtle patterns and shade as an aid for camouflage while others can closely mimic insects such as wasps, bees and flies. The patterns and colours of insects inspire artists, engineers and architects. Insects' intricate designs, vibrant colours, and unique structures offer a wealth of inspiration and valuable insights for creative endeavours and sustainable design solutions.

Moths can be found throughout all the seasons. Like butterflies, they are an 'indicator species'. Moth surveys carried out regularly inform us of their numbers and variety and this in turn tells us how our natural environment is functioning in the midst of the effects of climate change. Moths are in steep decline since the 1970s. This is due to changes in land use and the increasing use of pesticides. A decline in moths may be affecting bird species such as the Cuckoo, and Bat species that are reliant on moths as a food source.

So how can we play our part? Retaining natural areas of land / unimproved grasslands along hedgerows, small woodlands, ditches and ponds will help moths greatly. Creating wildlife corridors, providing a rich diversity of pollinator plants and raising awareness of these fascinating insects is important work that each and every one of us can do. For more information. Click on <https://www.pollinators.ie>

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Overleaf, is a list of all the moth species, numbers and varieties that we surveyed together with one or two interesting facts about each one. We hope this may spark in you a love and interest of these unsung heroes.

Moth Species and Quantities identified during survey:

Scientific Name	Common Name	Number
Laothoe Populi	Poplar hawk moth	1
Apamea scolopacina	Slender brindle moth	1
Selenia dentaria (2 nd Gen)	Early thorn moth	1
Euphyia unangulata	Sharp-angled carpet	1
Idaea seriata	Small dusty wave	1
Ecliptopera silaceata	Small phoenix	3
Apamea monoglypha	Dark arches	1
Euplexia lucipara	Small angled shade	23
Eupithecia tenuiata	Slender pug	7
Lithosia quadra	Four spotted footman	9
Mesapamea secalis	Common rustic	6
Xestia triangulum	Double square spot	3
Agriphila tristella	Common grass veneer of Crambidae family	3
Noctua pronuba	Yellow underwing (large)	222
Noctua comes	Lesser yellow underwing	21
Noctua interjecta	Least Yellow underwing	1
Noctua janthe	Lesser broad bordered yellow wing	1
Scotopteryx Mucronata umbrifera	Lead belle	1
Eilema sororcula	Orange footman	17
Hypena proboscidalis	Snout	3
Scotopteryx chenopodiata	Shaded broad-bar	1
Chryosteuchia culmella	Garden grass veneer	1
Cilix glaucata	Chinese character	1
Blastobasis adustella	Double dark spot	1
Eudonia lineola	Coast grey/White-line grey	1
Graphiphora augur	Double dart	1
Hydriomena furcata	July highflyer	1
Notodonta ziczac	Pebble prominent	1
Idaea dimidiata	Single-dotted wave	1
Mythimna impura	Smokey wainscot	1
Notodonta dromedarius	Iron prominent	1
Pleuroptya ruralis	Mother of pearl	1



Figure 1 Poplar hawk moth

The Poplar hawk moth produce one generation per annum.



Figure 2 Slender brindie moth

The Slender brindie moth is found in old mature woodland with grassy areas



Figure 3 Early thorn moth

The Early thorn moth has two generations per year. The second generation appears from mid-July to September and are often smaller and paler than the first generation



Figure 4 Sharp-angled carpet moth

The Sharp-angled carpet moth's larval food is unknown in the wild but stitchwort and chickpea are acceptable to them in captivity



Figure 5 Small dusty wave moth

This moth is common throughout parts of Europe but not so in Ireland!! It is grey and known for its dusty appearance with indistinct darker markings



Figure 6 Small phoenix moth

The larvae of the small phoenix moth feed on willowherbs



Figure 7 Dark arches moth

The larvae of the Dark arches moth feed on the roots and stems of various grasses



Figure 8 Four spotted footman moth

The Four spotted footman moth are resident in the south and west of Ireland but are known to be an immigrant species to Northern Ireland meaning they travel there rather than breed there. They feed on lichens.



Figure 9 Common rustic moth

An interesting fact is that the Common Rustic is actually a complex of three very similar species, including the Lesser Common Rustic and Remm's Rustic, and they cannot be reliably distinguished without examining the genitalia.



Figure 10 Small angled shade moth

The small angled shade moth is known for its excellent camouflage. It often appears as a withered leaf, thanks to its folded wings and pinkish-brown, cream, and greyish-green markings.



Figure 11 Slender pug moth

The Slender pug moth is considered a rare species in Ireland. It feeds on the catkins of the willow trees.



Figure 12 Double square spot moth

The larvae of the Double Square-spot are polyphagous, feeding on a variety of herbaceous plants and, in the spring, on hawthorn, blackthorn, and raspberry.



Figure 13 Common grass veneer moth

The golden fringe on the forewings of the common grass veneer moth is a key identifying characteristic.



Figure 14 Yellow underwing large moth

When disturbed, the adult moths will flash their bright hindwings to startle predators.



Figure 15 Lesser yellow underwing moth

The larvae of the Lesser yellow underwing moth feed on grasses and herbaceous plants from September to May, overwintering and then pupating in the spring.



Figure 16 Least yellow underwing moth

The Least yellow underwing moth is widespread but not common in Ireland, particularly in the southern parts of Northern Ireland. Recently, it has been found in locations like Crom and Garvary Wood in Fermanagh.



Figure 17 Lesser broad bordered yellow underwing moth

The Lesser broad bordered yellow underwing moth adults are on the wing from July to September.



Figure 18 Lead belle moth

The Lead Belle is a medium-sized moth with a wingspan of 30-38mm.



Figure 19 Orange footman moth

The Orange footman moth is usually found in mature woodlands with oak and beech trees. They feed on lichens of trees and fence posts.



Figure 20 Snout moth

Snout moths are named for their long, protruding palps, which resemble a snout. They rely on nettles as a food source.



Figure 21 Shaded Broad-bar moth

The Shaded broad-bar moth is common in Ireland but is on the priority species list in the UK. It flies during the day, at dusk and at night. It feeds on ragwort and common knapweed.



Figure 22 Garden grass veneer moth

The garden grass veneer moth is a nocturnal species and prefers to rest on grass stalks to blend in with the foliage.



Figure 23 Chinese character moth

The Chinese character moth is known for its remarkable camouflage. It folds its wings in a distinctive way to mimic a bird dropping, helping it to evade predators.



Figure24 Double dark spot moth

The Double dark spot moth feeds on decaying vegetable matter, bird droppings and conifer foilage.



Figure 25 July highflyer moth

The July highflyer moth is common and widespread in Ireland. It overwinters as an egg and is attracted to light.



Figure 26 Pebble prominent moth

The Pebble prominent moth is know for its distinctive pebble like markings. The caterpillar, when disturbed, raises its tail segment in a posture that resembles a snake's head, likely as a defence mechanism against predators.



Figure 27 Single-dotted wave moth

The single-dotted wave moth is common and widespread in Ireland and is know for its small size and dark dots bordering the rear edges of its wings.



Figure 28 Smoky wainscot moth

The Smoky wainscot moth is a common species although its abundance can vary. It prefers grassy habitats.



Figure 29 Iron prominent moth

The genome of the Iron Prominent moth has been sequenced as part of the Darwin Tree of Life Project. It feeds on the leaves of birch and alder trees.



Figure 30 Mother of pearl

The name "Mother-of-Pearl" comes from the iridescent sheen on their wings, which is visible in certain lighting conditions. They feed on nettles and can be found on the inside of curled up nettles for protection.



Figure 31 Coast grey White line grey moth

The White line grey moth feeds on lichens for its larvae, and lichens that are particularly found on rocks and walls.



Figure 32 Double dart moth

The Double dart moth is commonly widespread but particularly in eastern parts of the county and recently in parts of Fermanagh. They are typically on the wing and can be observed from June to mid-August.

Other insects found during Moth Survey

Scientific Name	Common Name	Number identified
Limnephilus lunatus	Caddisfly	17 (in moth trap)
Necrodes Littoralis	Carrion/Shore Sexton Beetle	1 (in moth trap)
Pardosa amentata	Spotted Wolf Spider	1 (found on outside tap)

This data will be uploaded to the National Biodiversity Data Centre in Ireland which actively engages citizen scientists to monitor moth populations as part of their broader biodiversity initiatives. This involvement is facilitated through <https://records.biodiversityireland.ie>, a platform for managing and sharing wildlife records, including moth observations.

This Moth Survey was carried out by the Kilmore Care of Creation Group on 24th July 2025 and the findings and report were completed by members of the Group, Barry Kavanagh and Patricia Keenan on 25th July 2025.