SIMPLE GUIDE TO IRISH HOVERFLY SPECIES

This guide has been put together by the
National Biodiversity Data Centre with text
provided by Dr Tom Gittings

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Documenting Ireland's Wildlife

Identifying syrphid species in Ireland

Syrphids should always be identified using a scientific key. The following free key is recommended for identifying syrphids to genus in Ireland:

2012 StN keys for the identification of adult European Syrphidae (Diptera)
http://pollinators.biodiversityireland.ie/id-guides

For identifying syrphids to species, these two keys cover all currently recorded Irish species:

Ball, S.G., Stubbs, A.E., McClean, I.F.G., Morris, R.K.A., Falk, S.J. & Hawkins, R.D. (2002) British Hoverflies: an illustrated identification guide, 2nd edition, 469pp. British Entomological and Natural History Society.

Van Veen, M. (2004) Hoverflies of Northwest Europe: identification keys to the Syrphidae. 256pp. KNNV Publishing, Utrecht.

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Reference specimens

Having reference specimens for comparison is important for accurate syrphid identification. It is the intention of the National Biodiversity Data Centre to maintain a reference collection of Irish species which will be available for public use during office hours.

The reference collection will be primarily a wet collection, but there will also be pinned specimens where possible.

All donations of wet or dry material would be gratefully received.

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Identifying hoverflies in the field

With experience, a number of species can be identified in the field. For the majority of these, very good close-up views are required to see critical features such as tarsal (leg) colour and wing venation.

Open-structured flowers such as hogweed in sheltered, sunny locations are generally the most productive locations for getting good views of hoverflies

Some species rarely visit flowers but can be found feeding on leaves where they are taking advantage of pollen grains trapped on the leaves surface or on honeydew.

Catching hoverflies in a hand net and looking at them with a hand lens is the best approach. Close-focusing binoculars can also be useful (e.g., Pentax Papilio binoculars).

Photographs need to show critical features, e.g., typical photos from the above often do not show important features such as leg colour and face pattern

With experience, flying hoverflies can often be identified by "jizz", at least to genus. This is **not** a method of critical identification but helps to find interesting species

Voucher specimens should always be taken of any new records of rare species

GUIDE TO SPECIES

These are NOT keys. They are simply intended as a guide to help make the group more accessible to beginners.

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Episyrphus balteatus

Distinctive colour pattern with double black bands on tergites 3 and 4 – no other species shows a similar colour pattern

Flower visitor, but also often seen hovering in aggregations above head height in sheltered locations

Abundant and widespread, but numbers vary from year to year. Some populations are resident here and others are as a result of annual migrations.

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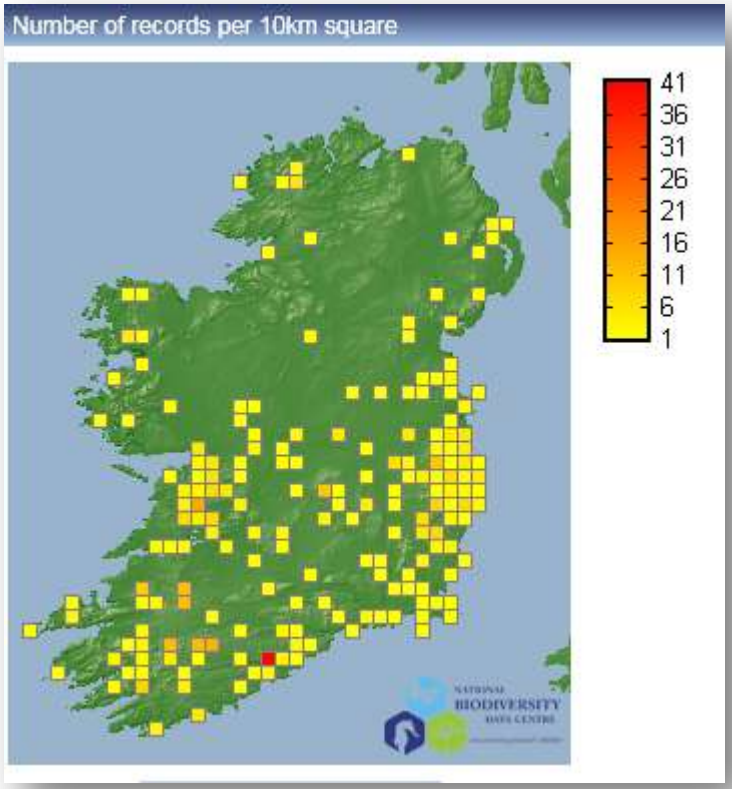
Episyrphus balteatus challenge



Records as of March 2013

How many 10km squares can we record this species from in Ireland?

Look for this species from March onwards (adults hibernate). It would be very interesting to find out where it is recorded early in the year (resident population) and later in the year (augmented by migrants).

It can be recorded until very late in the year, from ivy flowers and flowers of popular ornamental shrubs like *Viburnum tinus*.

It almost certainly could be found in all 10km squares in Ireland - being highly migratory it can be found as an adult where it can't live.

Rhingia campestris

Only Irish species with a long snout

Note also round body shape, black thorax with grey stripes and orange abdomen with black margins to the tergites

Rhingia rostrata (not recorded from Ireland but occurs in Britain) lacks black margins to the tergites

Abundant and widespread, breeds in cow dung, but adults can be seen in any habitat

Due to long snout can visit flowers with concealed nectar sources (such as labiates) that other hoverflies cannot use

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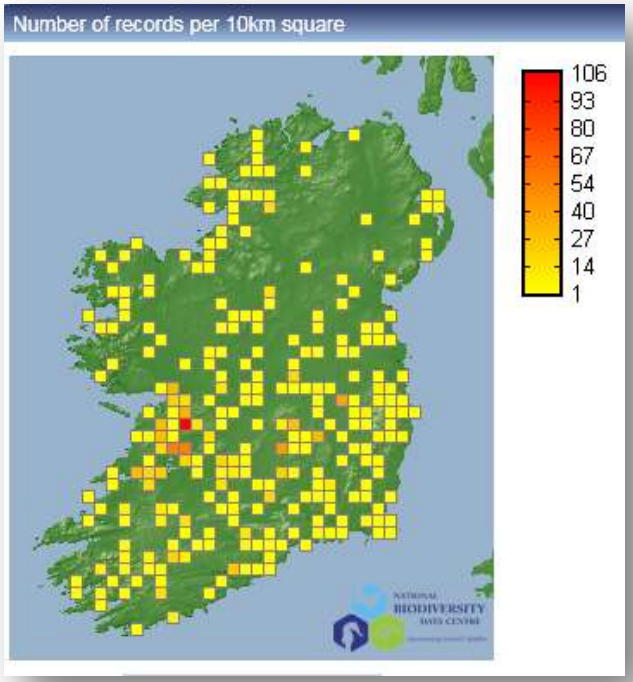
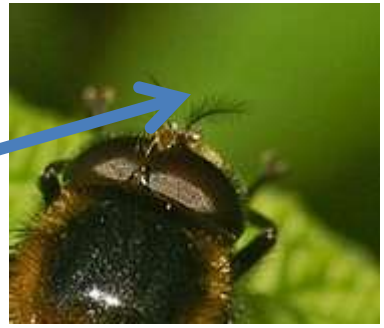
Rhingia campestris



Records as of March 2013

Volucella pellucens

Re-entrant outer cross-vein



Plumose arista

Large species

Body mainly black with interrupted white band at the base of the abdomen (tergite 2) and dark patches on the wings

Re-entrant outer cross-vein and plumose arista are characteristic of the genus and can be seen in the field

Colour pattern superficially similar to *Leucozona lucorum*, but that species much smaller, with orange hairs on thorax and yellow scutellum, and lacks re-entrant outer cross-vein and plumose arista

Flower visitor but males often seen hovering above head height in woodland

Woodland species, breeds in wasp nests

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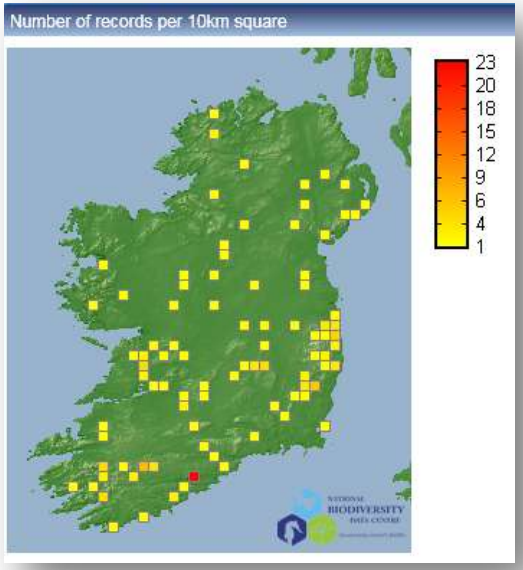
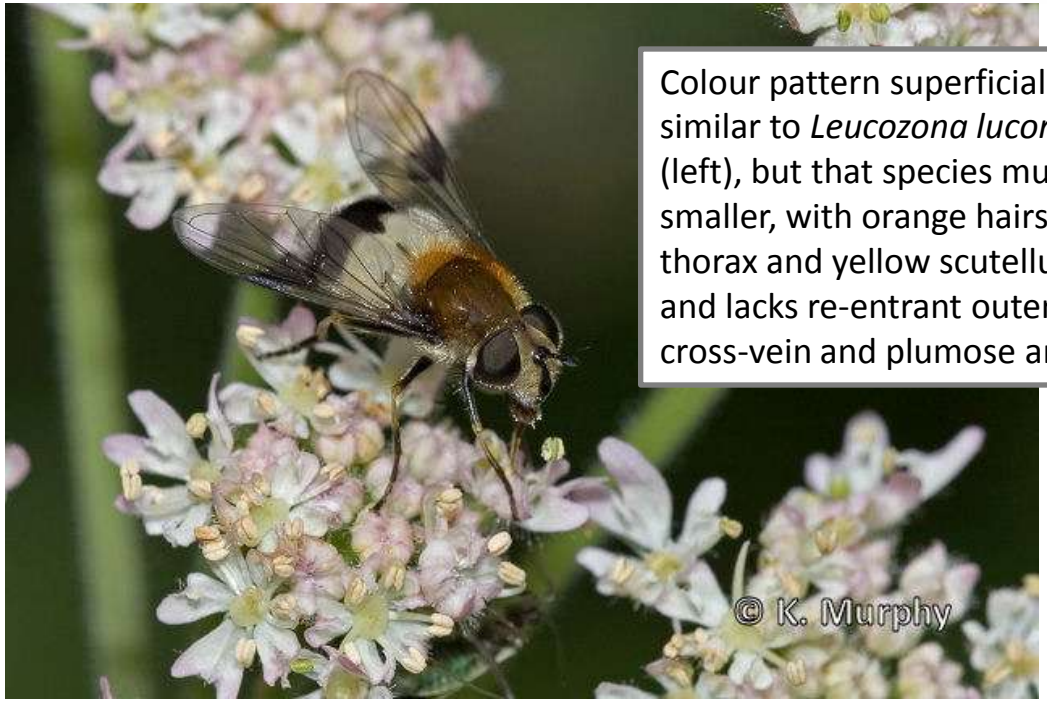


Volucella pellucens records as of March 2013



Colour pattern superficially similar to *Leucozona lucorum* (left), but that species much smaller, with orange hairs on thorax and yellow scutellum, and lacks re-entrant outer cross-vein and plumose arista

Take care not to confuse with *Cheilosia illustrata* (above) or *Eriozona syrphoides* (below)

Doros profuges

Looks like a solitary wasp, but has two wings not four

Could be confused with flies of the family Conopidae (conopids) but note the differences in wing venation and much longer antennae of the conopids

Enigmatic species, rarely seen in the field (five of the six Irish records are from Malaise traps)

Only "available" for about 2 weeks in the year (May-June)

Unimproved grasslands with areas of scrub in and around the Burren are the most likely areas to find it

Doros is almost certainly associated with the ant *Lasius fuliginosus*, its larva being a "stealth-predator, consuming the aphids the ant farms.

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Species *Doros profuges* could be confused with

Long, segmented antennae

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4 wings

Doros profuges is thought to be a mimic of the the solitary wasp *Argogorytes mystaceaus*.

Species *Doros profuges* could be confused with

www.diptera.info

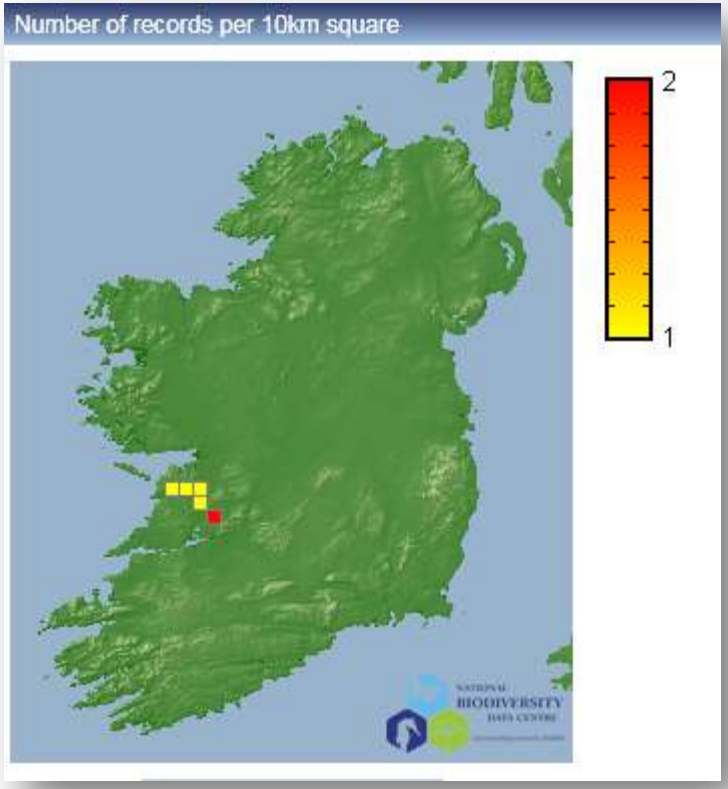
In Ireland *Doros* could be confused with flies of the family Conopidae (conopids): note the differences in wing venation and much longer antennae of the conopids

The outer cross-veins in *Doros* are more or less parallel to the wing margin (as in most syrphids), while in *Conops* they are kinked with the lower outer cross-vein angled away from the wing margin.

Conops quadrifasciatus

Female of *Conops vesicularis*

Doros profuges challenge



Records as of March 2013

Can you find any new populations?

D. profuges is striking in appearance and of a reasonable size, but is arguably the rarest Irish syrphid.

Records will need to be accompanied by a photographs to confirm identification.

Submit records

Please submit your records of syrphids to the National Biodiversity Data Centre

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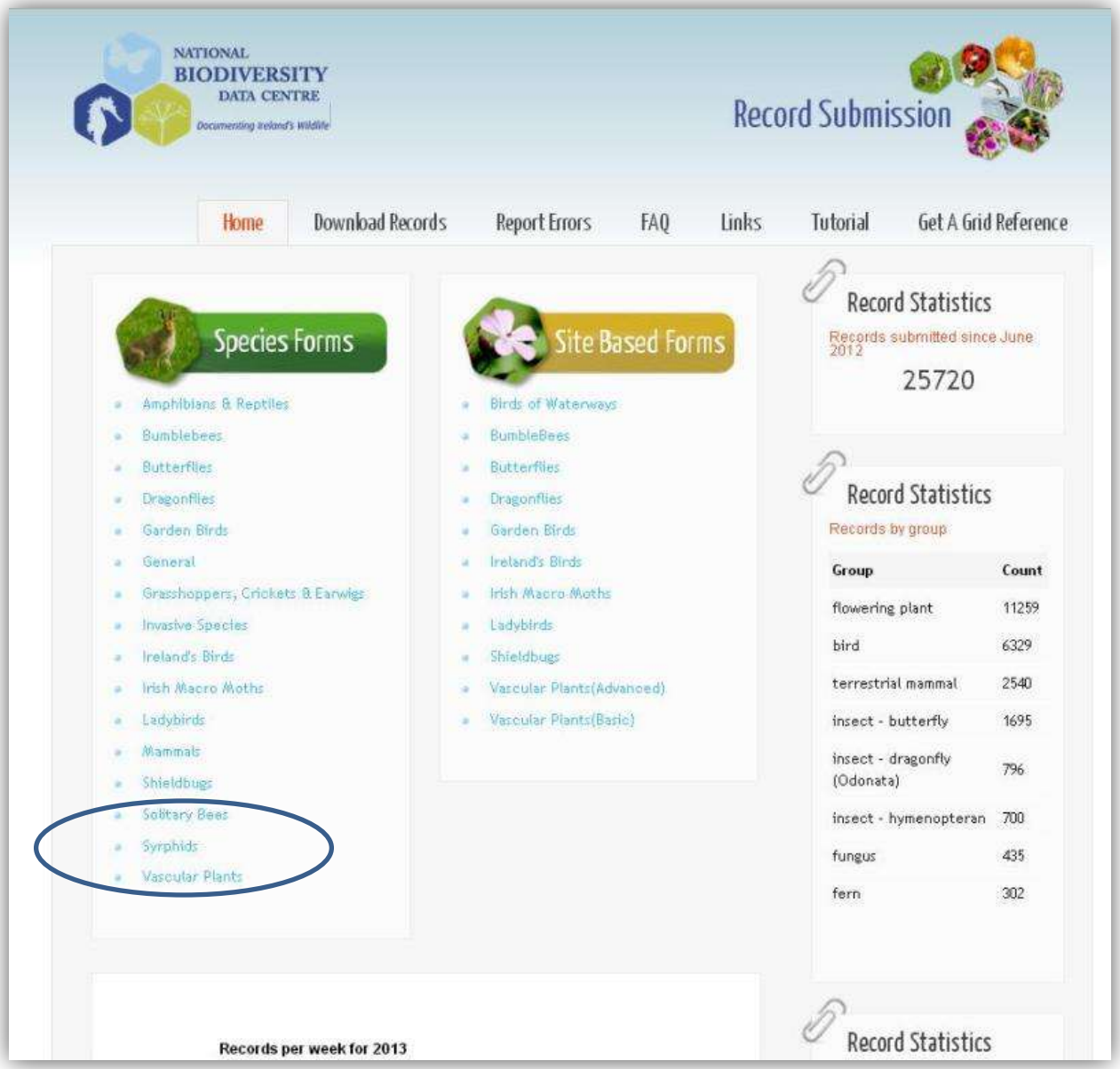
http://records.biodiversityireland.ie



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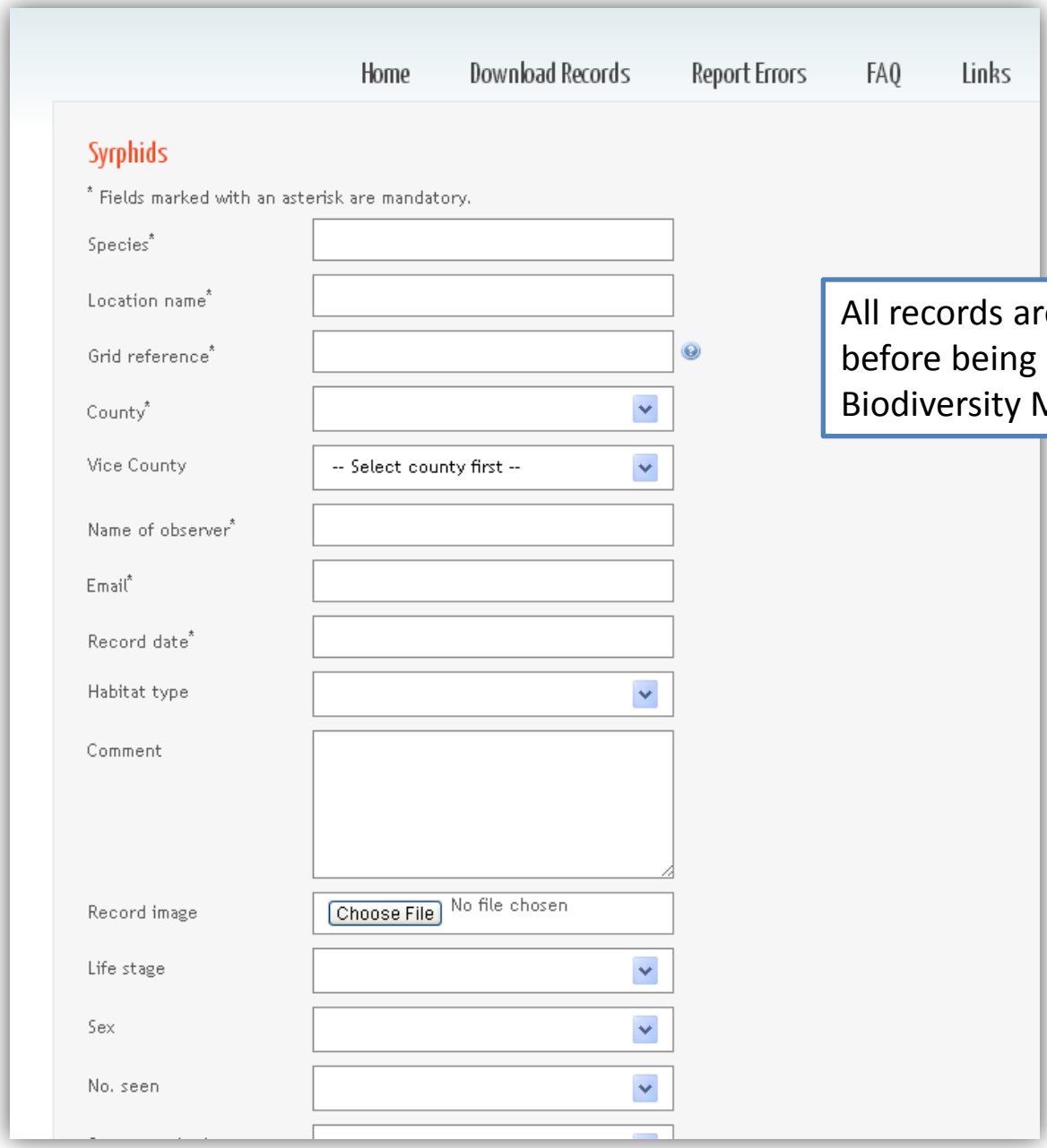

All records are validated before being loaded into Biodiversity Maps

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Special thanks to all those who have contributed photographs used in this guide

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