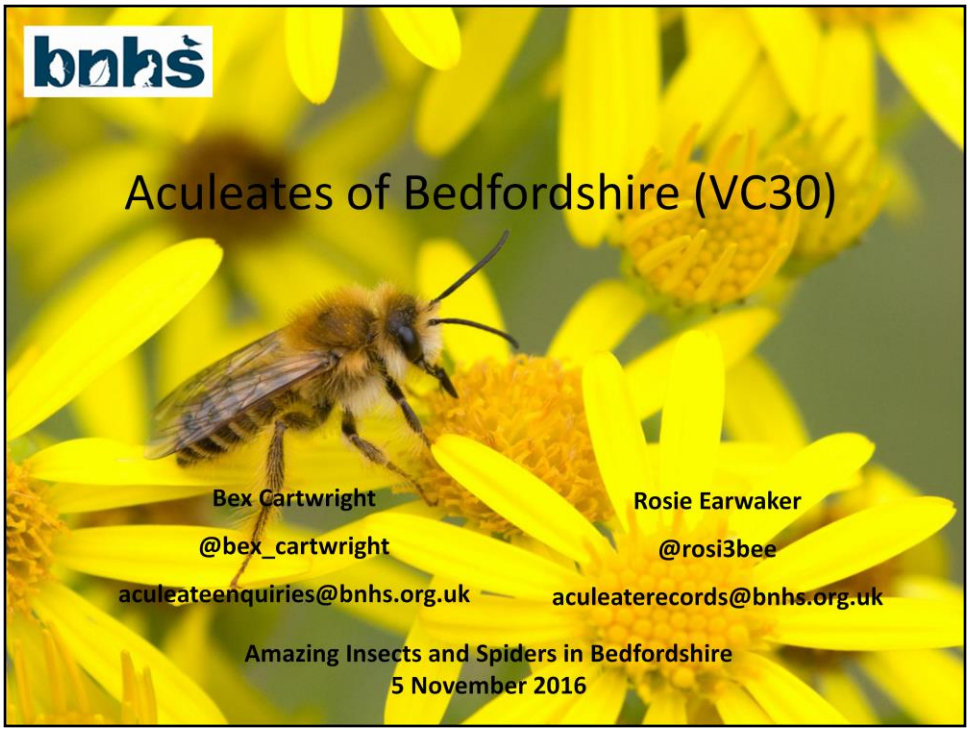
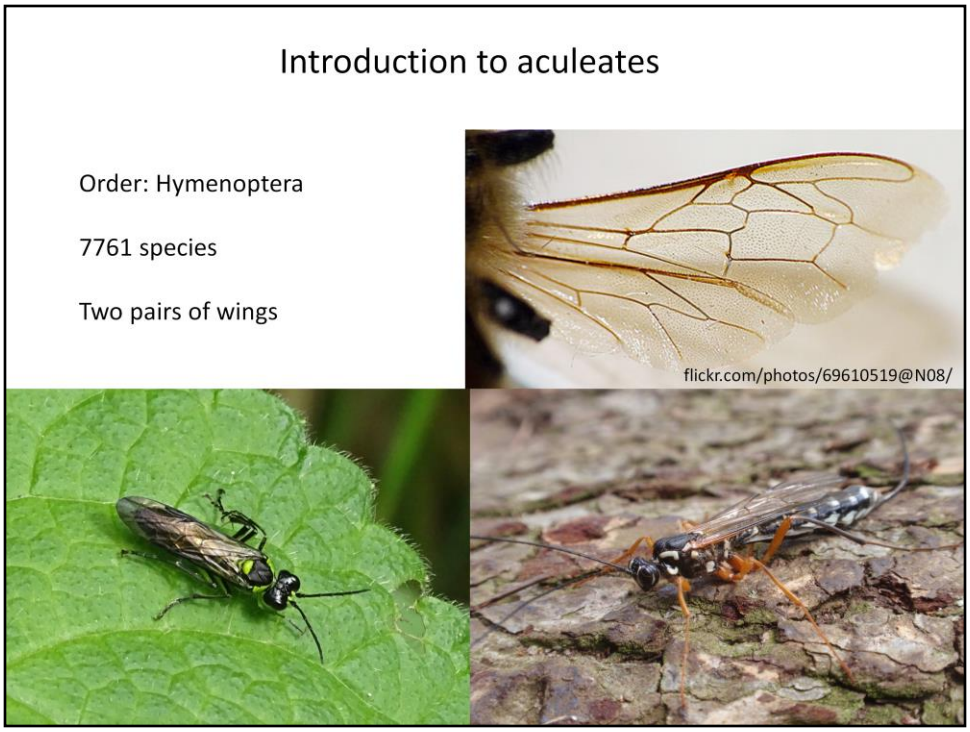
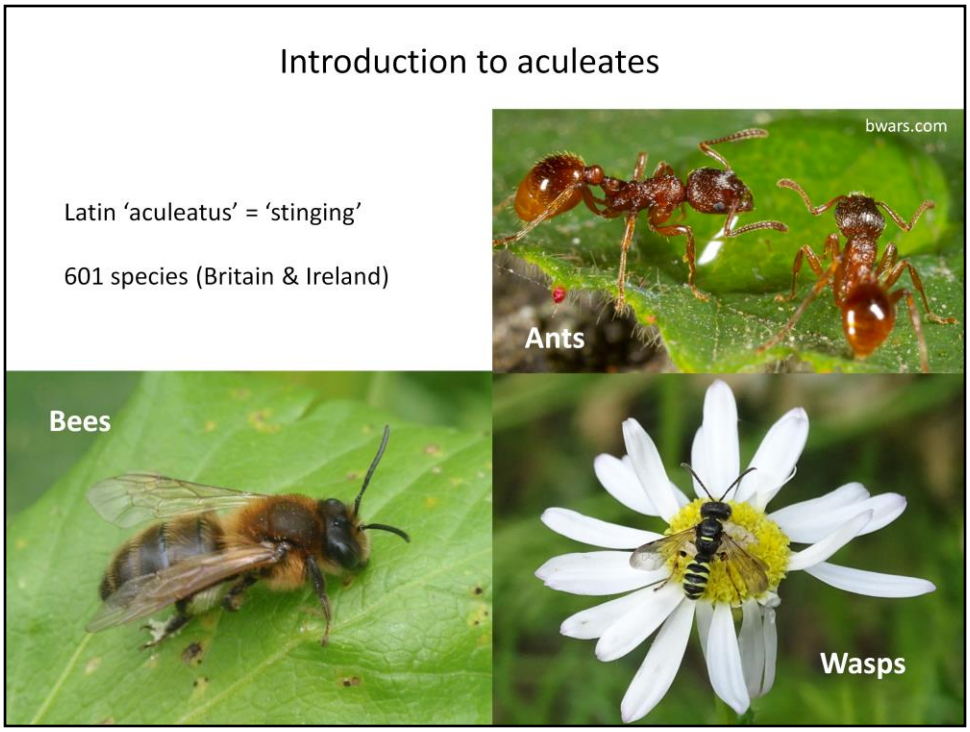


RE We're the VC30 recorders, but Colin covers bumbles (plus we accept all Hymenoptera records but not verfication of these)

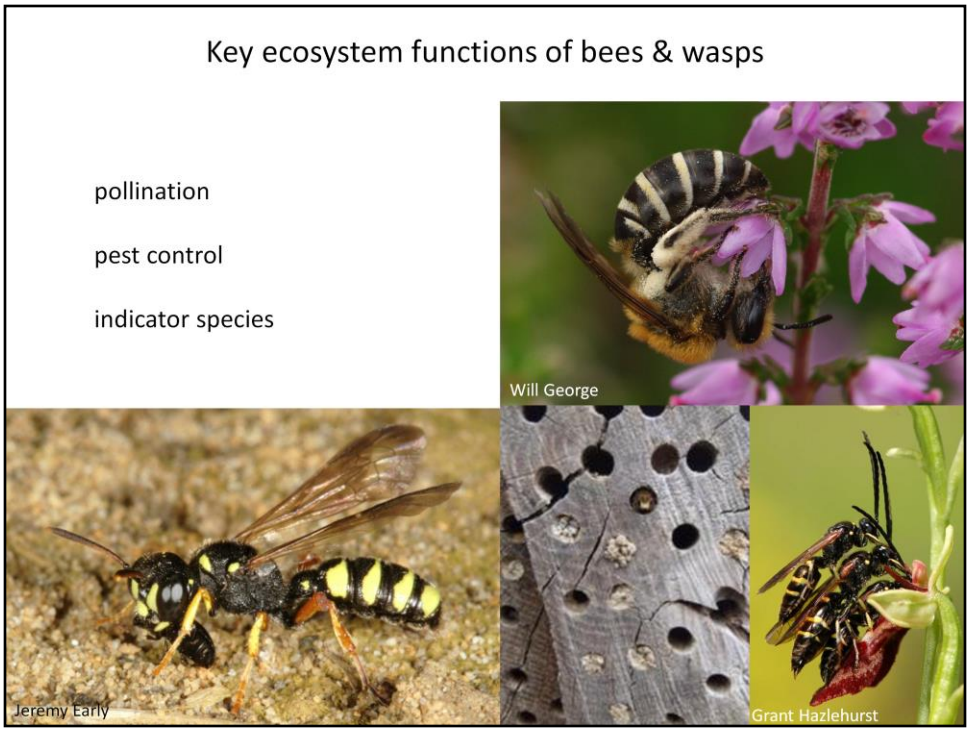


RE

Aculeates are in the order Hymenoptera, which contains over 7700 species in Britain & Ireland. This is the largest insect order in the British Isles. They are characterised by having two pairs of wings, which are often joined together by a series of hooks on wings.



RE
This group comprises the ants, bees and wasps.
The name aculeate Hymenoptera or ‘aculeates’ is derived from the Latin ‘aculeatus’, meaning ‘stinging’. The sting is a modified ovipositor, which explains why only the females can sting.
Nearly 300 wasps, over 250 bees and about 50 ants



Bees and wasps are **important pollinators** of our wild flowers. Many species are **polylectic**, foraging on a diverse range of plant species, while some are more **specific** such as the nationally notable bee, *Macropis europaea*, which is dependent upon Yellow Loosestrife, *Lysimachia vulgaris.* Some plants are dependent upon a **single species for pollination**, such as the Fly Orchid, *Ophrys insectifera,* which is pollinated solely by the Digger Wasp, *Argogorytes mystaceus*.
Together, **bees and wasps** make **excellent indicator species**: a diverse array of them on a reserve indicates that there is good **structural diversity** and a **variety of microhabitats** because the species often have very specific requirements with regard to nesting sites, nesting materials and foraging opportunities

Where to look for aculeates – habitats Woodland and woodland edge especially in Spring

Where to Look for aculeates – Sandy sites, old sand and gravel quarries

Where to look for aculeates - Gardens

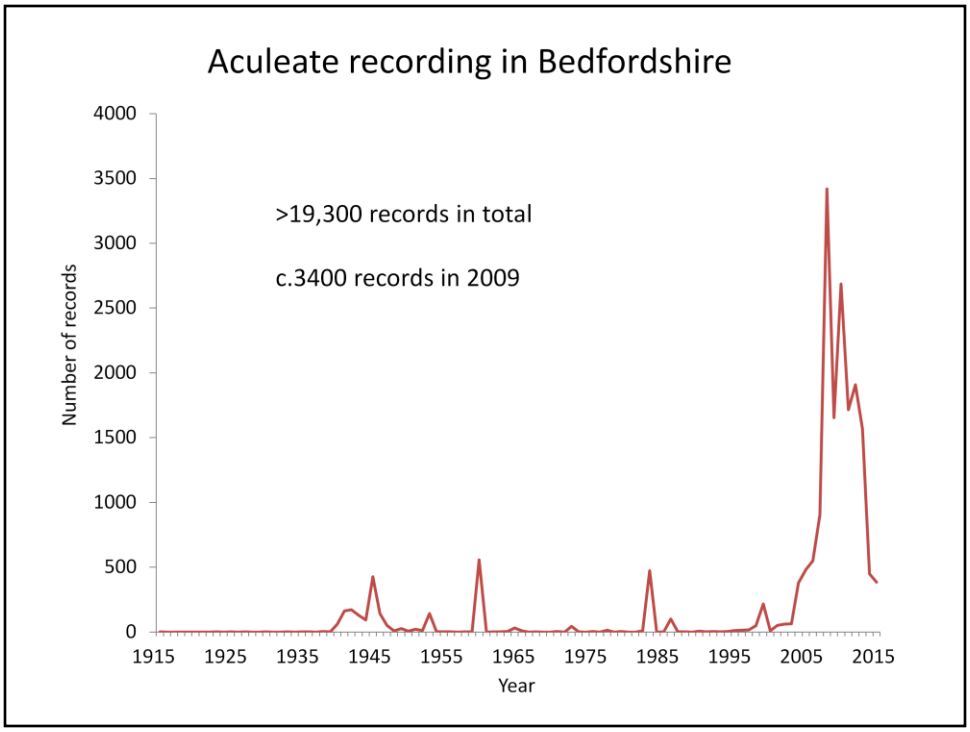
Where toAculeates are found in a **wide range of habitats** from February through to November (and some bumblebees are now found throughout the winter!). They are **warmth-loving** so the best time to look for them is on **hot, sunny days**.
Many bees will **nest in the ground** so looking for **holes in patches of bare ground** is often a good way of finding them. Solitary bees (and wasps) will tend to nest in aggregations and it is not uncommon to find **different species nesting side by side**. The cuckoo bees, which parasitize certain bee species, will often be found flying around these **nesting aggregations** so these can be quite good for yielding a number of different species.
For **ants**, some good places to look include: **tree trunks**; **plants** – particularly those with aphids on; **under logs** or other objects; **bare patches of ground**, and **dead wood**.
For **wasps**, the best places to look are similar to that of the bees: **flowers** are a good start and **bare patches of ground** where they are likely to nest. **Warm bits of dead wood** can often be productive as some species will nest in old beetle holes or just be found basking in the sunlight.
look for aculeates – features

Where to look for aculeates – bare ground features and habitats

Other places to search – Bare, damp muddy patches for species which collect mud to seal nests and separate cells
Open habitat, usually calcareous, with lots of snail shells for our snail shell nesting species – NB we have very few records for these species in Bedfordshire – worth keeping a look out for.
Artificial habitats, bee hotels attract a range of species especially if different materials and various diameter materials have been provided.
Look for very small species too – some are tiny. Apologies for the poor pic but there is a Stigmus wasp there, no more than 5.5mm in length.

Where to look for aculeates – flower species
For **bees**, the best place to look is on **flowers** where they - the **females** that is - will be **collecting pollen and nectar** to feed their larvae. The **males** will often be found **scouting** from flower to flower **in search of females**, so areas rich in flowers will generally be productive.

For wasps with prey that depend on a particular species, good places to look are around the host plant or habitats of the prey species.

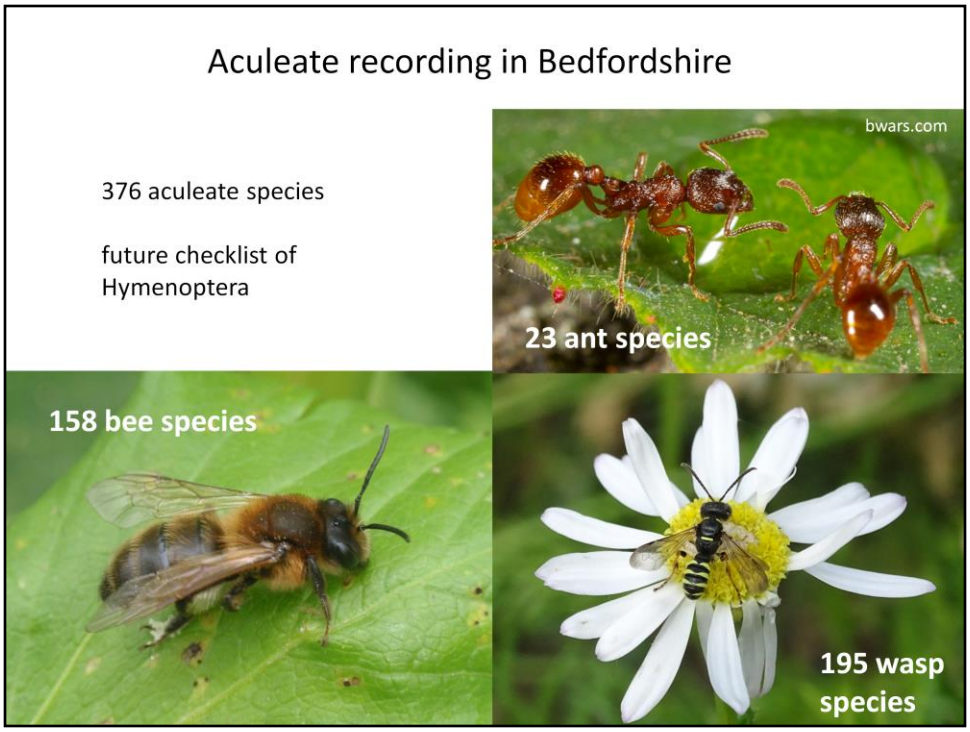


RE

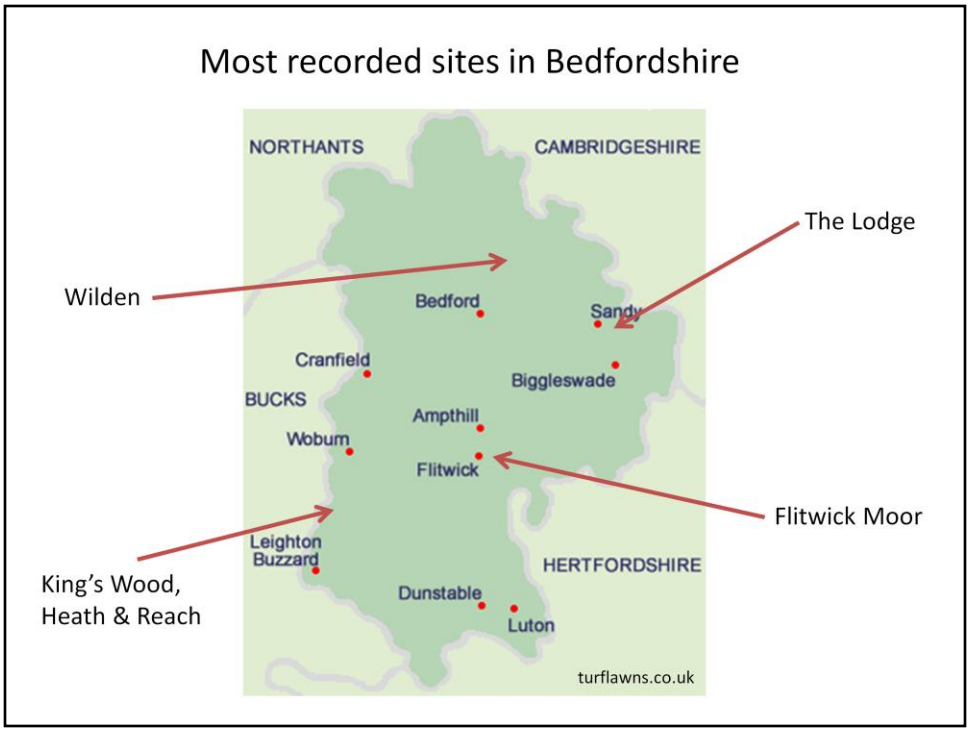
About ¾ records are of bees.

Vic Chambers recording in mid-late 20th century, who is responsible for much of our understanding of the aculeate fauna of Bedfordshire today.

Since the peak year of 2009, there are over 1000 records each year, which is likely to be due to the increasing number of identification resources available as well as increased use of digital photography...



RE
Peter Sutton and I are working on a Hymenoptera checklist for Bedfordshire, with help from Colin Carpenter.


Most recorded sites in Bedfordshire
NORTHANTS
CAMBRIDGESHIRE
The Lodge
Wilden
Bedford
Sandy
Cranfield
Biggleswade
BUCKS
Ampthill
Woburn
Flitwick
Flitwick Moor
Leighton Buzzard
King's Wood, Heath & Reach
HERTFORDSHIRE
Dunstable
Luton
turflawns.co.uk

RE

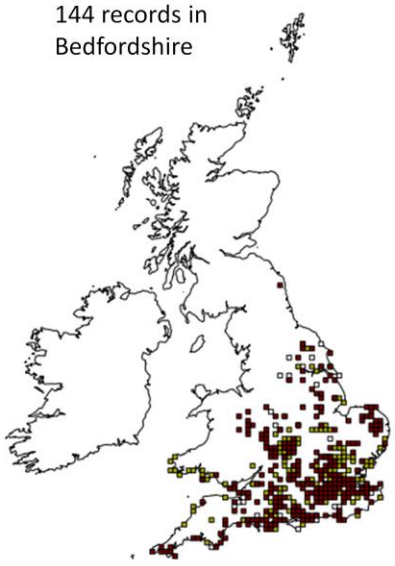
Anthophora plumipes (Hairy-footed Flower Bee)

nests in vertical banks and walls

Lungwort is a favourite foodplant

active March - May

144 records in Bedfordshire



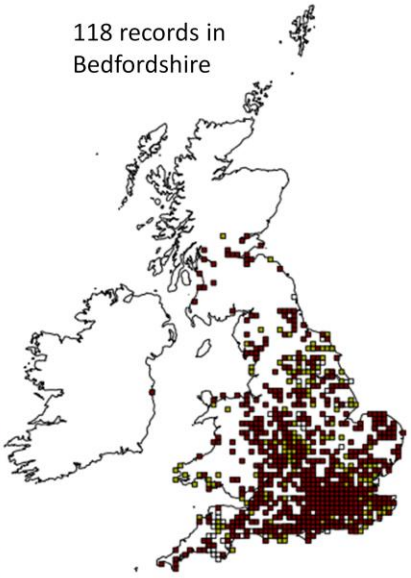
Osmia bicornis (Red Mason Bee)

females collect mud for nest cells

common bee hotel resident

active April - June

118 records in Bedfordshire



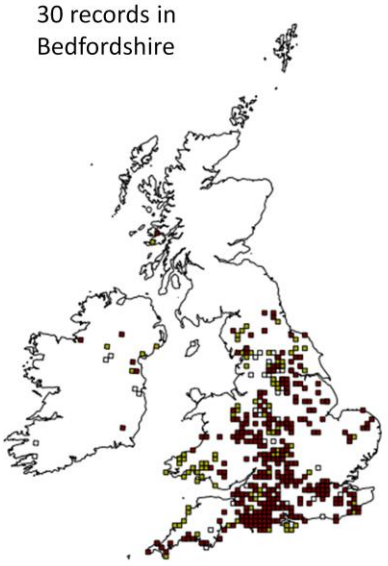
Andrena cineraria (Ashy Mining Bee)

characteristic black & white hairs

nests in areas of bare ground

active March - June

30 records in Bedfordshire



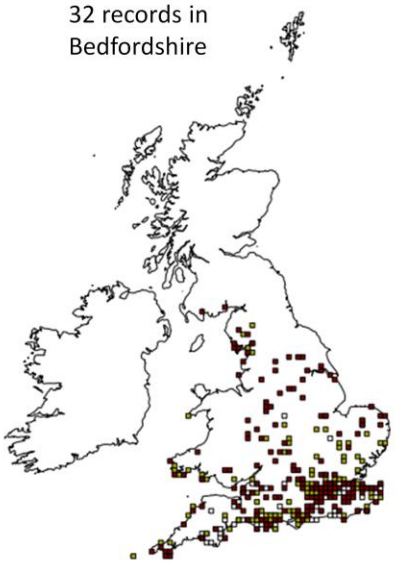
Anthidium manicatum (Wool Carder Bee)

distinctive yellow markings

males defend patches of flowers

active late May – early August

32 records in Bedfordshire



Andrena pilipes/nigrospina (Black/Scarce Black Mining Bee)

all black with whitish hairs on hind legs

scarce species

3 records in Bedfordshire

Dasypoda hirtipes (Hairy-legged Bee)

females have very hairy legs for pollen collection

active late June – August

25 records in Bedfordshire

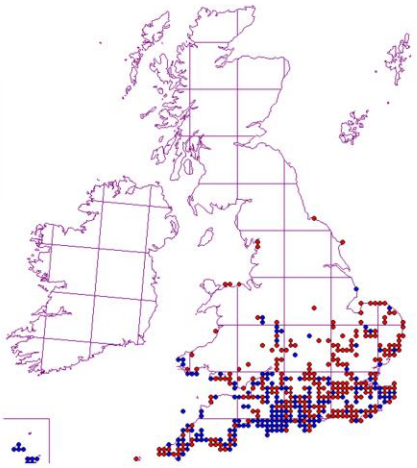
Colletes hederae (Ivy Bee)

arrived in the UK in 2001 in Dorset

first recorded in Bedfordshire in 2014

active September - October

31 records in Bedfordshire



News › UK › Home News

Angry, drunk and unemployed German wasps are invading Essex

This year's mild winter and dry spring has resulted in far more wasps than usual, who are getting drunk by eating fermented fruit and stinging people

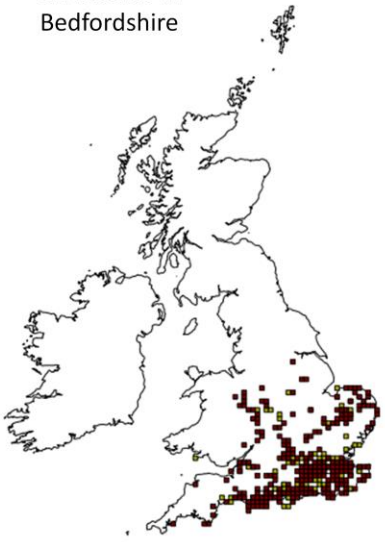
Wasps do not get a good press. What is the Point of Wasps?

Cerceris rybyensis (Ornate-tailed Digger Wasp)

ground-nester – often in compacted sandy paths on various soils

preys on small solitary bees of various genera

82 records in Bedfordshire



One of the top 10 recorded wasp species in Beds-Cerceris rybyensis
Michelin-man wasps – due to shape of abdomen, distinctive ridges
Yellow faces – often seen peering up from burrows in compacted earth. Often found on paths.

Anoplius viaticus (Black-banded Spider Wasp)

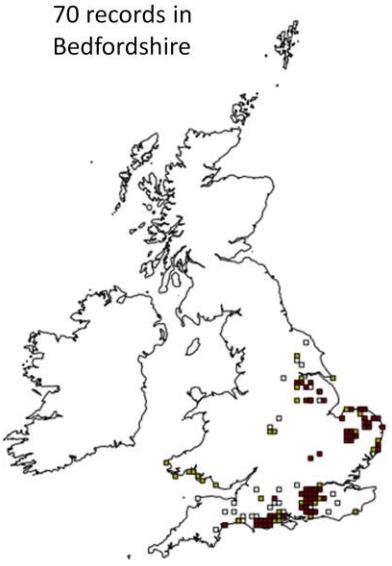
distinctively-marked spider-hunting wasp

can be seen from Feb-Sept

most records from The Lodge

preys mostly on Wolf Spiders (Lycosidae)

70 records in Bedfordshire



One of the top 10 recorded wasp species in Beds- Anoplius viaticus
Unlike many other wasp species this species can be seen from early Spring right through until September, the mated females overwinter and emerge in Spring and can be one of the earliest aculeates seen in the year.

Anoplius viaticus habitat at The Lodge, Sandy

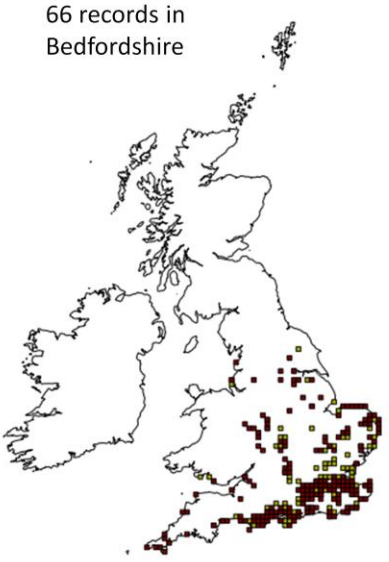
Philanthus triangulum (Bee Wolf)

a large, honey bee sized wasp

preys on honey bees

ground-nesting, forms huge aggregations

66 records in Bedfordshire



One of the top 10 recorded wasp species in Beds - Used to considered a rarity but has had a huge range expansion over last two decades. Males have a distinctive crown-pattern between the antennal insertions.

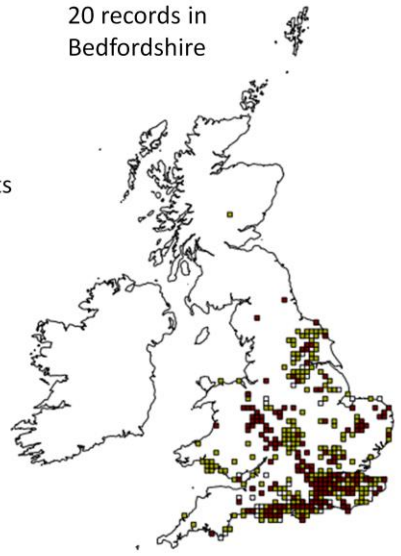
Trichrysis cyanea (Turquoise Jewel Wasp)

only entirely blue-green, metallic wasp species in Britain

widespread and found in variety of habitats where hosts are present

cleptoparasitic with a range of aculeate hosts

20 records in Bedfordshire



To look out for - A cleptoparasite with a variety of aerial nesting host species. Mainly Trypoxylon species but has also been reared from nests of aerially nesting bees, hylaeus, heriades...

Crabro cribrarius (Slender-bodied Digger Wasp)

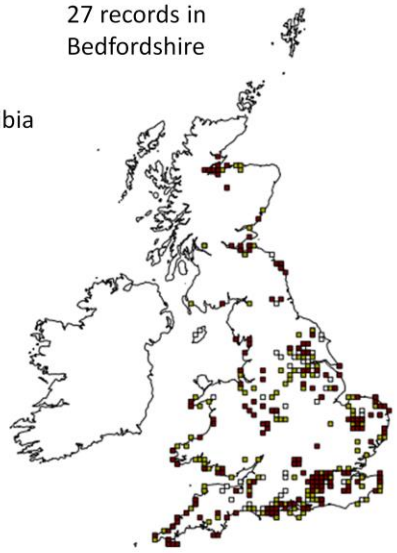
widespread species

largest of the 3 *Crabro* species

males have distinctive 'shields' on the fore tibia

preys on Diptera

27 records in Bedfordshire



To look out for - We have two of the three UK *Crabro* species in Bedfordshire. The other is C.peltarius. The other species not found in Beds, Crabro scutellatus requires dry, sandy banks adjacent to damp heath or bog where its prey Dolichopis flies are found. They are most easily distinguished by the enlarged plate or shield on the male fore tibia, each is distinctive.

Microdynerus exilis (Little Mason Wasp)

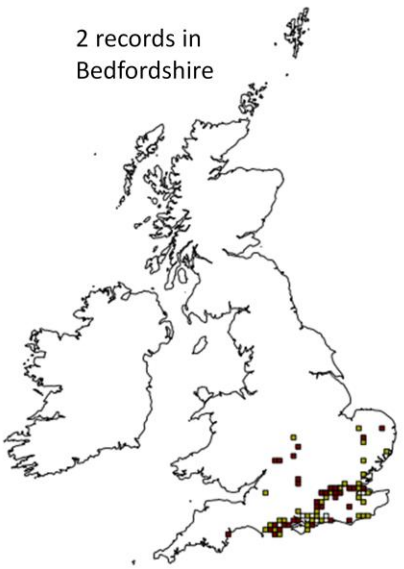
small, slim , elongate wasp

black with cream-white markings

dead wood nester

prey – weevil larvae

new to Britain 1937 (Hampshire)



To look out for - Microdynerus exilis – only Microdynerus species in the UK. Late addition to the British list- recorded new to Britain in 1937! Has spread but still considered scarce.
A long slim wasp, mainly black with creamy white markings. Elongate thorax and propodeum.
Nests in beetle holes in a variety of dead wood habitats, fence posts, dead trees, sometimes bramble stems. It needs warm, open, dry conditions.
Plugs its nest with small grains of sand and pebbles – this is the behaviour being exhibited in this image, the wasp is collecting dry sand grains.
Provisions the nest with small weevil larvae.

2014 image of Microdynerus exilis habitat.

Myrmosa atra (Least Velvet Ant)

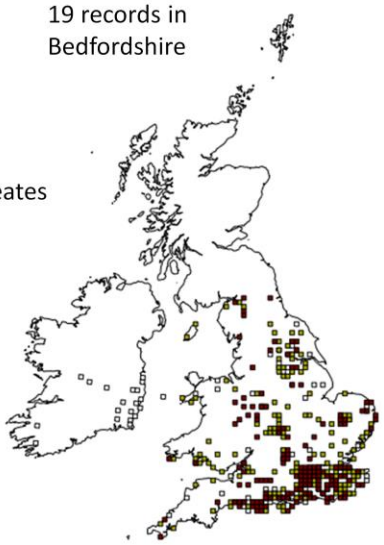
wingless females

males are winged

can appear ant-like

cleptoparasite of various ground-nesting aculeates

19 records in Bedfordshire



One to look out for – Myrmosa atra. Can be tricky to spot as it crawls around on bare sandy ground searching for host nests.

Submitting records

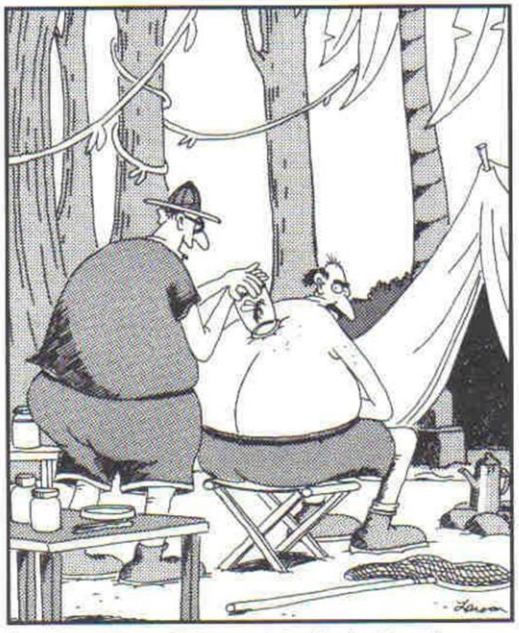
please submit records via iRecord:

www.brc.ac.uk/irecord

OR

via e-mail
(ideally in Excel spreadsheets) to:

aculeaterecords@bnhs.org.uk

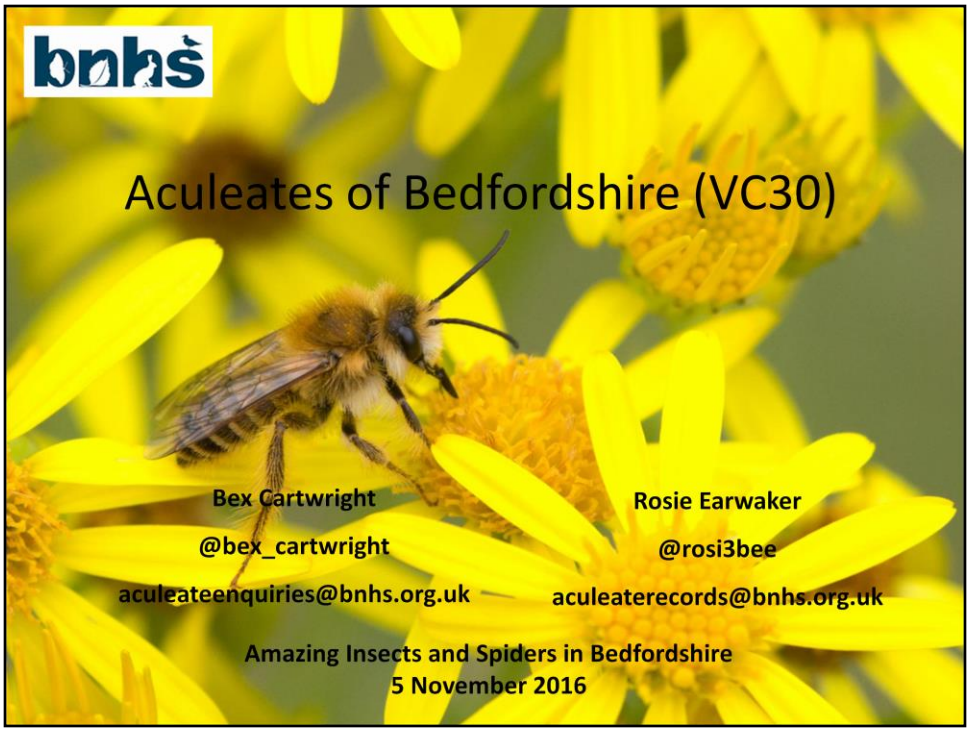


"Got him, Byron! It's something in the *Vespula* genus, all right—and oooooweeeee does he look mad!"

Gary Larson

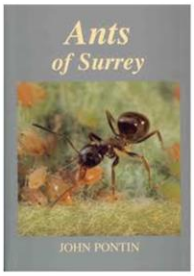
thank you to all of the VC30 recorders!

Will George

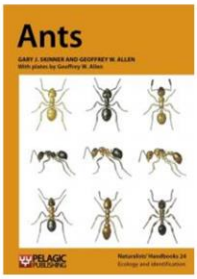


Thanks for listening!

Useful resources: ants



Ants of Surrey
J. Pontin
Surrey Wildlife Trust
2005

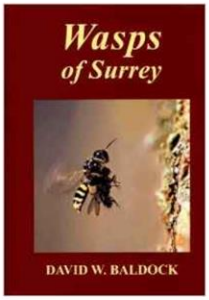


Ants (Naturalists Handbook 24)
G. Skinner & G. Allen
Pelagic Publishing
2013

B.Eversham (2006) Draft Key to Worker Ants in Beds, Cambs and Northants

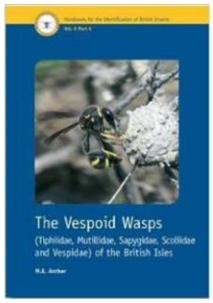
Ants are still a 'neglected' group when it comes to aculeates in Bedfordshire. A lot more work to be done, records very welcome.

Useful resources: wasps



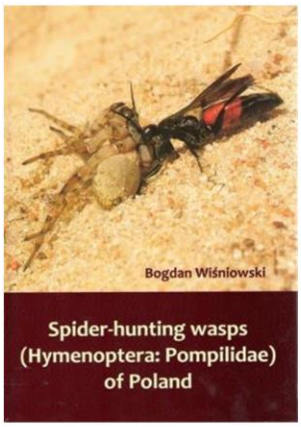
Wasps of Surrey
David Baldock
Surrey Wildlife Trust
2010

Solitary Wasps
(Naturalists Handbook)
Peter Yeo & Sarah Corbet
Pelagic Publishing
2015

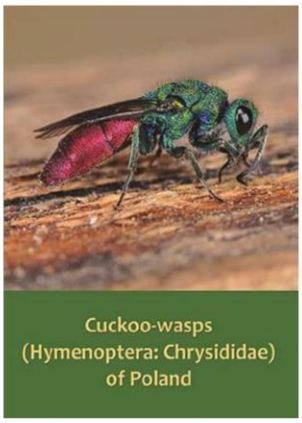


The Vespoid Wasps (RES
Handbooks Vol 6. Part 6)
M. E. Archer
Royal Entomological Society
2014

Useful resources: wasps

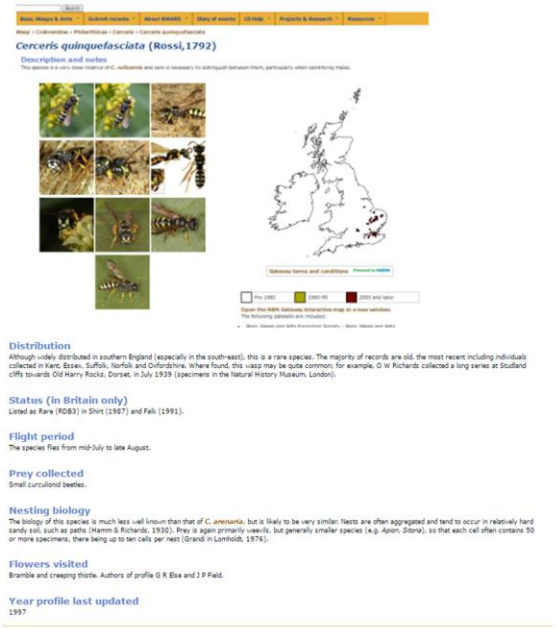


Spider -hunting wasps
of Poland
Bogdan Wiśniowski
Ojców National Park
2009



Cuckoo-wasps
of Poland
Bogdan Wiśniowski
Ojców National Park
2015

Useful online resources



Cerceris quinquefasciata (Rossi,1792)

Description and notes

Distribution

Although widely distributed in southern England (especially in the south-east), this is a rare species. The majority of records are old, the most recent including individuals collected in Kent, Essex, Suffolk, Norfolk and Oxfordshire. Where found, this wasp may be quite common; for example, O W Richards collected a long series at Studland cliffs towards Old Harry Rocks, Dorset, in July 1939 (specimens in the Natural History Museum, London).

Status (in Britain only)

Listed as Rare (RDB3) in Shirt (1987) and Falk (1991).

Flight period

The species flies from mid-July to late August.

Prey collected

Small curculionid beetles.

Nesting biology

The biology of this species is much less well known than that of *C. arenaria*, but is likely to be very similar. Nests are often aggregated and tend to occur in relatively hard sandy soil, such as paths (Hamm & Richards, 1930). Prey is again primarily weevils, but generally smaller species (e.g. *Apion, Sitona*), so that each cell often contains 50 or more specimens, there being up to ten cells per nest (Grandi in Lomholdt, 1976).

Flowers visited

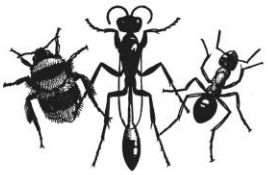
Bramble and creeping thistle. Authors of profile G R Else and J P Field.

Year profile last updated

1997

BWARS website

www.bwars.com



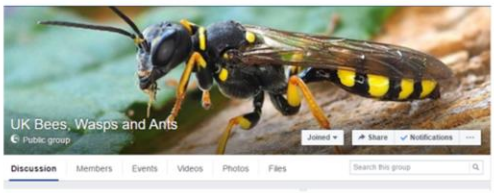
species accounts & maps

diary of events

guidebooks & keys

links to downloads

Useful online resources



Bees, Wasps and Ants Facebook group & BWARS page

identification help & advice

upload **images** and videos

links to **events**, ID **workshops**, new **publications**

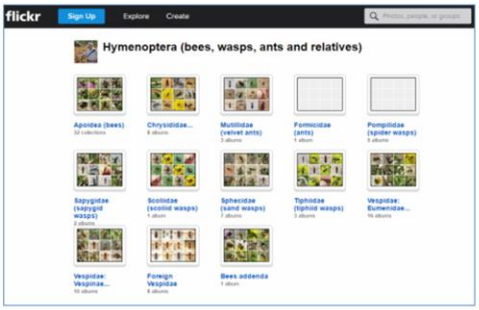
species updates & maps

4,860+ members

daily use by BWARS members and iRecord verifiers

active discussion group

Useful online resources



Steve Falk's Flickr galleries

www.flickr.com

iSpot

www.ispotnature.org