Feeling Inspired about Arable?

Why not tell us what you have discovered? We would love to see what you have found. Share your photos on social media tagging @naturebftb and @love_plants, email colourinthemargins@plantlife.org.uk or log it on iRecord.

Do you want to know more?

You can find lots of resources about arable wildlife, for all ages and abilities, at plantlife.org.uk. Try developing the skills you have learnt by downloading the Rare Arable Flowers App.

BACK FROM THE BRINK

Colour in the Margins

We are a Back from the Brink partnership project working to conserve the wildlife unique to arable farmland.

We want to raise the profile of England's threatened arable habitat by inspiring people to discover and celebrate it with us!

Find out more by visiting naturebftb.co.uk

HERITAGE FUND

Supported by players of PEOPLE'S POSTCODE LOTTERY
Awarding funds from POSTCODE GREEN TRUST

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BACK FROM THE BRINK

Arable Beginners
Bugology

A guide to familiarise you with farmer's friends around an arable farm

Who are farmer's friends?

Farmer's friends are beneficial invertebrates that help pollinate plants, improve soil health for growing crops and can help control other species which may have a negative effect on crops. Watching them in arable fields can help to understand how important and diverse they are.

What is an invertebrate?

Invertebrates are animals that do not have a backbone. They are the largest group in the animal kingdom. They come in all shapes and sizes, and live pretty much anywhere that you can imagine.

Here are some of the different body shapes to get you started on your Bugology journey:

Insect
3 body parts

Spider
2 body parts

Harvestmen
1 body part

Woodlice & Millipede
Body made of segments

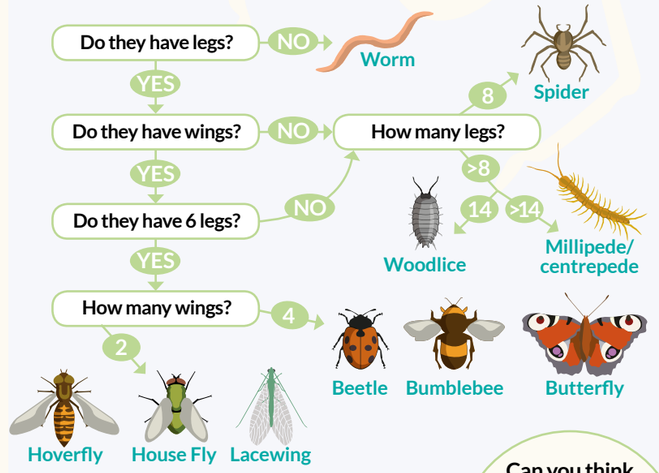
97% of all animals are invertebrates!

Count the number of legs and wings?

Farmer's friends are invertebrates. Some have no legs, but generally they have six, like bumblebees and beetles, eight legs like spiders or many more legs like woodlice and millipedes.

Bugology
The study of insects or other bugs. Also cool name for entomology (en·tuh·mo·luh·jee)!!

Look around the habitat you are in and use the chart below to find out what type of friend you have found.



Hint: Ladybirds and other beetles are flying superheroes! They actually have 2 pairs of wings!

Can you think why having lots of farmer's friends makes a farmer happy?

Hoverfly Hunt

Hoverflies are the unsung heroes of our countryside - they are super multi-tasking invertebrates! Adults are really good pollinators and some larvae are fast-munching aphid predators.

There are over 280 different species of hoverfly, many of which look very similar. On your wander through arable fields, find a sunny patch with some flowering plants and take time to look for these.

Did you know
Predatory hoverfly larvae can eat up to 1200 aphids in 6 weeks!

Hoverflies can look very similar to other flying invertebrates. Can you think of any others that are similar?

Have a go at counting how many you see.

©Dan TP

Tiger Hoverfly

©Amada44 - CC BY-SA 4.0

Long Hoverfly

©S.Falk

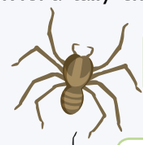
Marmalade Hoverfly

©S.Falk

Great Pied Hoverfly

How Many?

Decide on a stretch of path where you are going to investigate what invertebrates you can find there. Can you see any farmer's friends like those below? Why not try counting how many you can see? Use the box for a 'tally' chart of the number of each species.



Spiders

Beetles

Woodlice

Flies

Did you find anything different?

Draw a picture of it here and fill in where you found it and what it was feeding on. If you don't know what it is called, give it a new name.

Invertebrate type

No. of body parts

No. of legs

Name

Favourite food

Lives in

Who are the beneficial friends?

Different species of invertebrates do specific jobs. Groups of farmer's friends are called **Predators**, **Parasitoids**, **Pollinators** and **Composters**.

While wandering around arable fields use the images below to try and find the same or similar looking species.

Predators

Predators consume the adults and larvae of other invertebrates that live on an arable farm that can damage crops.


©S. Rae - CC BY 2.0

7-spot Ladybird larvae


©Mathias Krumbholz - CC BY-SA 3.0

Common Lacewing


©Christoph Benisch - www.kerbtier.de

Mellet's Downy-back Beetle


©Chris Spilling

Red-legged Robber Fly

Parasitoids

Parasitoids prey on the larvae of 'pests' and basically eat their way out of the other insect which kills the pest.


©Chris Moody CC BY-NC 2.0

Rove Beetle


©Scott SM - CC BY-NC 2.0

Parasitoid Wasp


©Andrew Ramsay

Ichneumon Wasp


© Lund University - CC BY-NC 2.0

Platygaster species

Pollinators

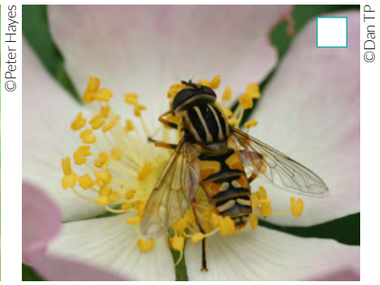
Pollinators come in all shapes and sizes and help plants to reproduce, encouraging seed production.


© Iain Perkins

6-spot Burnet Moth


©Peter Hayes

Thick-legged Flower Beetle


©Dan TP

Tiger Hoverfly


©S.Falk

Common Wasp

Composters

Composters live or overwinter in the soil, eating detritus and breaking down organic matter.


©André Karwath - CC BY-SA 2.5

Flat-backed Millipede


©Matt Shardlow

Worm


©John Mason

Woodlouse


©AJC1 - CC BY-SA 2.0

Springtail

What do they actually do?

The following examples will help you to understand their role on your Bugology journey.

While you are out and about why not stop at some flowers or plants, take time to observe and see if you can record any live action!


©bramblejungle - CC BY-NC 2.0

Aphid Eaters - predatory ground beetle likes to munch on cereal aphids in crops.


©Cath Shellswell

Pollen Transporter - Bumblebees are important pollinators carrying pollen between plants of the same species.


©Chris Moody CC BY-NC 2.0

Body Snatcher – Rove beetle parasitise Bean Seed Flies!


©Matt Shardlow

Cool Composters - worms eat decaying matter, improving soil for healthy crops.

Can you spot the difference between the species below and identify which group they belong to?

Draw a line to match the group to the image:

Shieldbug | Beetle | Fly | Bumblebee


©Nigel Jones


©S.Falk


©S.Falk


©John Walters