



The Great British Bug Hunt



THE GREAT BRITISH BUG HUNT



Welcome to the Great British Bug Hunt, this is a very exciting project to support the wildlife in your garden. Whilst you are self-isolating, please could you help the bees, butterflies and bugs in your area by becoming a nature detective? This involves learning about pollinator insects and the plants that support them, planting the enclosed plants in your garden to attract more, observing their behaviour and taking part in regular insect count.

Your nature detective kit includes this beautifully illustrated guide containing butterfly, bee and bird spotting guides, nature puzzles, games and activities to challenge and expand your knowledge of wildlife.

Information about how you can take part in a wildlife survey which will help you to recognise and measure the various creatures that come to visit as well as the opportunity to talk to other people about your findings. Plus two pollinator plants and a laminated bug identification sheet to help you encourage more wildlife visitors into your garden.

Contents

- An introduction to the wonderful world inside your garden
- Pollinator Plants Poster illustrated by Rachel Corney
- Instructions on how to plant your pollinator plants and why we need them
- What to plant to attract bees and butterflies into your garden





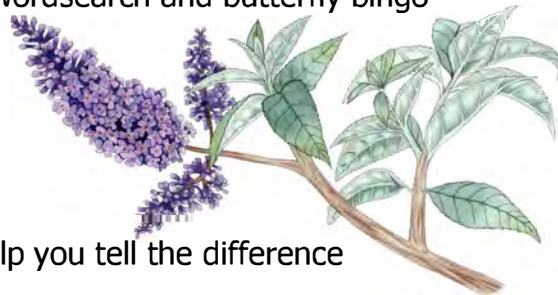
Butterflies

- A poster of butterflies in Britain
- Butterfly spotting information
- What to plant to attract caterpillars and butterflies into your garden
- How to make a butterfly feeder
- Butterfly games – crossword, anagrams, wordsearch and butterfly bingo



Bees

- Bee spotting information
- A bee spotting poster
- Big 7 Common Bumblebee ID Poster to help you tell the difference
- Taking part in the National PoMS Bee and Butterfly
- How to carry out a FIT (Flower Insect Timed) count
- FIT Count data recording form
- Join a 'Nature Calls' group with 3 other people to discuss your findings
- How to build a bug house with things you have at home
- Bee Games – including a crossword, anagrams, a wordsearch and bug bingo



Birds

- Bird spotting information
- British Garden Birds poster
- Bird Games – Bird and Bird Song Bingo
- Bird crosswords, anagrams and a wordsearch



Hedgehogs

- Encouraging hedgehogs into your garden
- How to build a hedgehog house with things you have at home



Appendix

- Extra PoMS insect Count forms
- Anagram, crossword & wordsearch answers
- Where to send your photos and videos



Your Garden Wilderness

Your garden is a mini ecosystem with lots of things working together, many different plants, bugs, bees, butterflies and birds have made your garden their home. Just look to your side, above your head or beneath your feet and you will find an incredible variety of creatures living alongside you.

Where do all these creatures live? Peer amongst the long grass and bushes you will find spiders living in their webs, sheildbugs perching on leaves and frog hopper nymphs hiding in frothy piles of Cuckoo spit.

Butterflies, bees and hoverflies can all be seen visiting flowers and if you look

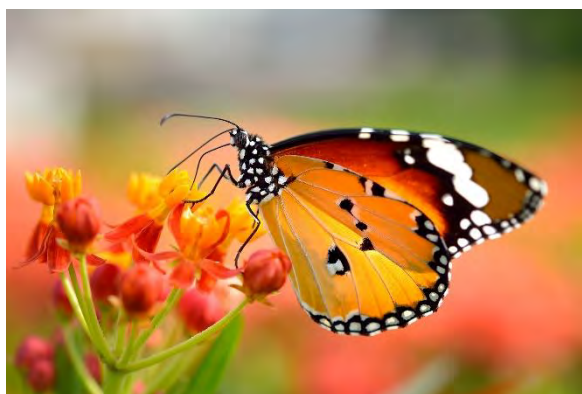
closely into the flower heads you will find earwigs and small flower beetles. Look at the stems and under leaves and you will find caterpillars, aphids and ladybirds.

Slugs, snails and woodlice live underneath flowerpots and stones. Beetles and earthworms make burrows under the ground below your grass and plants and if you look closely after it has rained you'll see them come to the surface.



Handle with care

These animals are very fragile so take care when handling them, try not to handle them too much, a plastic teaspoon, piece of paper or paintbrush is a good way to pick them up.



A plastic pot or an empty jam jar can be used for putting them in while you have a closer look, but remember to put them back where you found them once you have finished looking at them. Some insects can sting, while others can give you a painful nip, so handle with care.

Save Our Bees

Plant these pollinator-friendly plants in your garden



Hebe



Purple Beardtongue



Cardoon



Fuchsia



Marigold



Foxglove



Red Hot Poker



Hydrangea



Dahlia



Echinops



Poppy



Prairie Mallow



Majoram

Lavender



Whorled Clary Sage



Viper's Bugloss



Escallonia



Borage

Bee Friendly

Rachel Corney Illustration

Planting your pollinator plants and why do we need them?



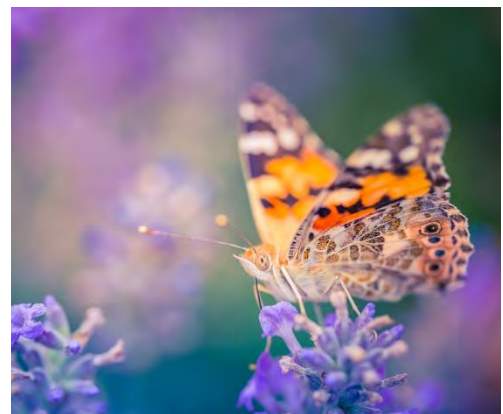
You should have received some plants that will attract a range of pollinating insects into your garden. Please plant these as soon as you can in a sunny spot, level with the ground and give them plenty of water over the next few days to help them settle in. You might like to think about other plants that you could introduce to your garden to help create biodiversity corridors throughout our towns and cities.

What are pollinators?

Pollinators are insects that move pollen from male structures (anthers) of flowers to the female structure (stigma) of the same plant species. Pollination is mutually beneficial to plants and pollinators. It is necessary for many plants to reproduce and the sugary nectar provides the pollinators with carbohydrates and the pollen offers proteins, fats, vitamins, minerals, and necessary phytochemicals.

Examples of pollinators

Honeybees often come to mind first when people think of pollinators. However, many different animals, including other insects (other bee species, butterflies, beetles, flies), some birds and some bats are pollinators. Indeed, there are an estimated 300,000 species of flowering plants worldwide that require animal pollinators.



Pollinators are necessary for three-quarters of our major food crops

Not every species of plant requires animal-mediated pollination services. For example, wheat is wind-pollinated. However, the majority of crops that we like most to eat and provide most of our nutrition (fruits, vegetables, and nuts) use animal-mediated pollination. Without pollinators, our diets would be severely limited, and it would be more difficult to acquire the variety of vitamins and minerals that we need to stay healthy.



Healthy pollinators and healthy ecosystems

Plants are the foundation of our food chains as well as providing shelter and nesting habitat for many different animal species. In order to maintain the diversity of our natural ecosystems, we need healthy pollinator populations to ensure that the next generation of plants will be produced.

Please have a look at the various charts included which illustrate the type of plants you could think about planting in your garden to support pollinating insects.

Butterflies of Britain



Holly Blue



Common Blue



Small Tortoiseshell



Speckled Wood



Ringlet

Orange-tip

Green-veined White

Small White



Red Admiral



Peacock



Gatekeeper



Meadow Brown



Large White



Brimstone



Marbled White



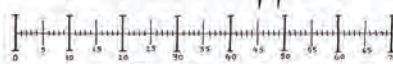
Small Copper



Comma

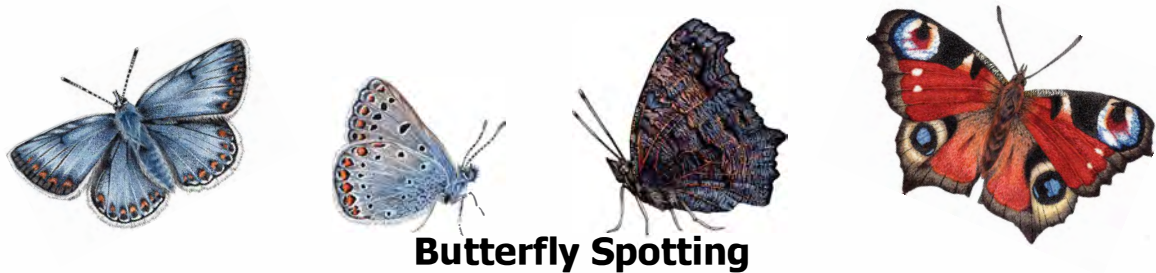


Painted Lady



Scale (mm)

Rachel Corney Illustration



Butterfly Spotting

The life span of an adult butterfly depends on the species and weather conditions, a small species such as the common blue may live for only a few days whereas a Peacock may emerge from its pupa in early August, feed up and hibernate, mate and lay eggs in the spring and still be on the wing in early June the following year.

Butterfly wings consist of a membrane covered in loosely attached scales, their colours have evolved both as a means of recognizing or attracting a potential mate (display colours) and as camouflage to avoid predators. In the Orange-tip the bright colours of the male are display colours which identify it to a female, whereas the mottled green pattern of the underside helps to camouflage it when it's resting.



Each butterfly species has its own habitat requirements. These are determined by the foodplant of the caterpillar, the nectar source for the adult butterfly and the conditions needed for the caterpillar to survive and then pupate successfully. Some butterflies are happy to live and feed on several plants and can breed in a variety of places, including gardens and parks. Others are fussier and have very specific requirements.



Habitat loss is the main cause of the decline of butterflies and moths. Land management techniques such as the intensification of farming and woodland management, industrial development of buildings and roads and climate change are all having an impact.

Butterflies and moths are very sensitive, reacting very quickly to any changes in their environment which makes them excellent biodiversity indicators. Butterfly declines are an early warning for other wildlife losses which is why counting butterflies is described as taking the pulse of nature.

The charts show what you can plant to offer a range of nectar rich plants throughout each season.



Planting to attract butterflies and caterpillars

The good news is that we can help butterflies and moths through gardening! Collectively our gardens can provide important places, homes and food sources for these special creatures. When planting to attract butterflies, it's a good idea to also consider the caterpillar food plants which sometimes get overlooked in favour of pretty flowers!

FLOWERING MARCH TO APRIL	FLOWERING MAY TO JUNE	FLOWERING JULY TO NOVEMBER
Apple, <i>Malus domestica</i>	<i>Allium</i> spp.	Bramble, <i>Rubus fruticosus</i>
Aubretia, <i>Aubretia</i> spp.	Birds-Foot Trefoil, <i>Lotus corniculatus</i>	<i>Buddleja</i> spp.
Bluebell, <i>Hyacinthoides non-scripta</i>	Bush Vetch, <i>Vicia sepium</i>	Candytuft, <i>Iberis</i> spp.
Bugle, <i>Ajuga reptans</i>	Bellflower, <i>Campanula</i> spp.	Cardoon, <i>Cynara cardunculus</i>
Cherry, <i>Prunus</i> spp.	Ceanothus	Catmint, <i>Nepeta</i> spp.
Cuckooflower, <i>Cardamine pratensis</i>	Clover, <i>Trifolium</i> spp.	Cinquefoil, <i>Potentilla reptans</i>
Forget-Me-Not, <i>Myosotis sylvatica</i> (biennial)	Comfrey, <i>Symphytum</i> spp.	Comflower, <i>Centaurea cyanus</i> (annual)
Flowering Currant, <i>Ribes sanguineum</i>	Cotoneaster	Cosmos, <i>Cosmos bipinnatus</i> (annual)
Grape Hyacinth, <i>Muscari armeniacum</i>	Cranesbill, <i>Geranium</i> spp.	<i>Dahlia</i> spp. (single flowered varieties)
Heather, <i>Erica carnea</i>	Escallonia	Fennel, <i>Foeniculum vulgare</i>
Honesty, <i>Lunaria annua</i> (biennial)	Everlasting Pea, <i>Lathyrus latifolius</i>	Gaillardia, <i>Gaillardia aristata</i>
Lungwort, <i>Pulmonaria</i> spp.	French Marigold, <i>Tagetes patula</i> (annual)	Globe Thistle, <i>Echinops ritro</i>
Pear, <i>Pyrus</i> spp.	Granny's Bonnet, <i>Aquilegia</i> spp.	Hebe, <i>Hebe</i> spp.
Plum, <i>Prunus domestica</i>	Hawthorn, <i>Crataegus monogyna</i>	Hemp Agrimony, <i>Eupatorium cannabinum</i>
Primrose, <i>Primula vulgaris</i>	Honeysuckle, <i>Lonicera</i> spp.	Hyssop, <i>Hyssopus officinalis</i>
Goat Willow, <i>Salix caprea</i>	Kidney Vetch, <i>Anthyllis vulneraria</i>	Ice Plant, <i>Sedum spectabile</i>
Rosemary, <i>Rosmarinus officinalis</i>	Red Campion, <i>Silene dioica</i>	Ivy, <i>Hedera helix</i>
Sweet Rocket, <i>Hesperis matronalis</i> (biennial)	Rose, <i>Rosa</i> spp. (single-flowered varieties)	Knapweeds, <i>Centaurea</i> spp.
Sweet William, <i>Dianthus barbatus</i>	Sage, <i>Salvia</i> spp.	Lavender, <i>Lavandula</i> spp.
	Summer Heather, <i>Calluna vulgaris</i>	<i>Origanum</i> spp.
	Thyme, <i>Thymus vulgaris</i>	Michaelmas Daisy, <i>Aster</i> spp.
	Tufted Vetch, <i>Vicia cracca</i>	Mint, <i>Mentha</i> spp.
	Wallflower, <i>Erysimum</i> spp. (annual or perennial)	Phlox, <i>Phlox drummondii</i> (annual) or <i>Phlox paniculata</i>



Nectar plants for butterflies.

Note: These plants are perennial unless stated.



**Butterfly
Conservation**

Saving butterflies, moths and our environment

CATERPILLAR FOODPLANTS: BUTTERFLIES

TREES AND SHRUBS	
Alder Buckthorn, <i>Frangula alnus</i>	Brimstone
Blackthorn, <i>Prunus spinosa</i>	Brown Hairstreak
Buckthorn, <i>Rhamnus cathartica</i>	Brimstone
Holly, <i>Ilex aquifolium</i>	Holly Blue
Oak, <i>Quercus robur</i>	Purple Hairstreak

HERBACEOUS PLANTS	
Bird's-foot-trefoil, <i>Lotus corniculatus</i>	Common Blue, Green Hairstreak
Broom, <i>Cytisus scoparius</i>	Green Hairstreak
Garlic Mustard, <i>Alliaria petiolata</i>	Orange-tip
Grasses, <i>Agrostis</i> spp. <i>Dactylis glomerata</i> , <i>Elytrigia repens</i>	Skippers, Marbled White, Meadow Brown, Gatekeeper, Ringlet, Speckled Wood
Honesty, <i>Lunaria annua</i>	Orange-tip
Hop, <i>Humulus lupulus</i>	Comma
Ivy, <i>Hedera helix</i>	Holly Blue
Lady's Smock, <i>Cardamine pratensis</i>	Orange-tip
Nasturtium, <i>Tropaeolum majus</i>	Large White, Small White and Green-veined White
Nettle, <i>Urtica dioica</i>	Red Admiral, Comma, Peacock, Small Tortoiseshell
Sorrel or Dock, <i>Rumex acetosa</i> , <i>Rumex obtusifolius</i>	Small Copper
Thistles, <i>Cirsium</i> spp. and <i>Carduus</i> spp.	Painted Lady

Planning your butterfly garden...

Plant clumps of larval food plants together.

Aim for year-round flower interest, with early and late sources of nectar.

Only use peat-free compost to help prevent damage to rare habitats.

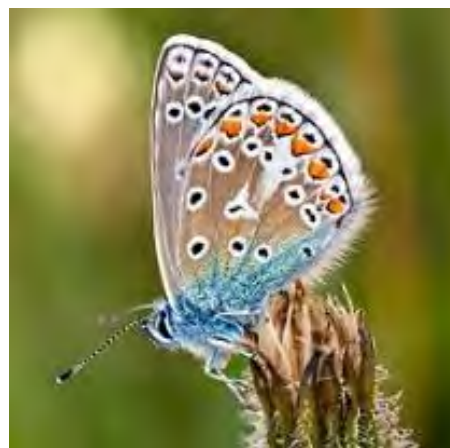
Delay cutting back in the autumn, tidying borders in later winter instead.

Don't use pesticides: these can affect all garden wildlife.

Verbena bonariensis
Viper's Bugloss, *Echium vulgare* (biennial)

Planting to attract caterpillars and butterflies

Butterflies love a sunny sheltered garden, with a range of pollen and nectar to attract a variety of visitors sometimes depending on their shape. Many flowers of the daisy family, such as sunflowers and asters, help to attract butterflies and bees with their flat, open tops, perfect for landing. Other flowers in the campion and honeysuckle families have narrow tubular centres, which moths and butterflies may have exclusive access to by making use of their long tongues. Brush-like flowers, like buddleia, also make for good resting places and nectar access.



Common Blue



An ideal butterfly garden would include a wide range of flower shapes, full of seasonal perennials that offer nectar for early arrivals such as brimstones, through to the last red admirals in autumn. You could include an open area for wildflowers and grasses to attract egg-laying females. A site with low soil fertility is ideal.

Nasturtiums are a good bet as they are both a food plant for caterpillars and a nectar resource for adult butterflies and bees! The yellow or orange flowers of Nasturtiums are very attractive to bees with long tongues, such as the Common Carder and Garden Bumblebees. Large White and Small White butterflies lay their eggs on the leaves, so they're an excellent plant for those munching caterpillars.



Please allow a corner of your garden to grow wild, let the nettles, grasses & dandelions grow.

If you are able to, please get the iRecord App on your mobile phone or Ipad, it is very easy to use and allows you to photograph your butterfly sightings, this information is very important.



Peacock



Painted Lady



Comma

How to make a Butterfly Feeder

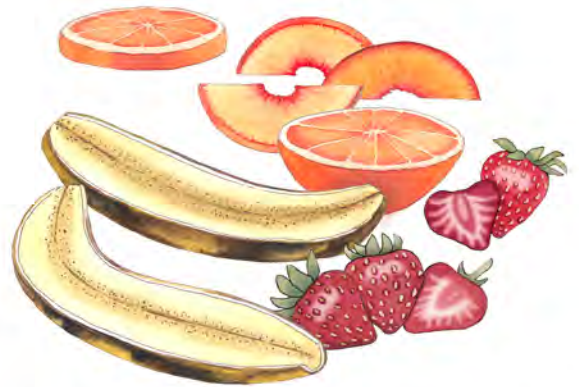
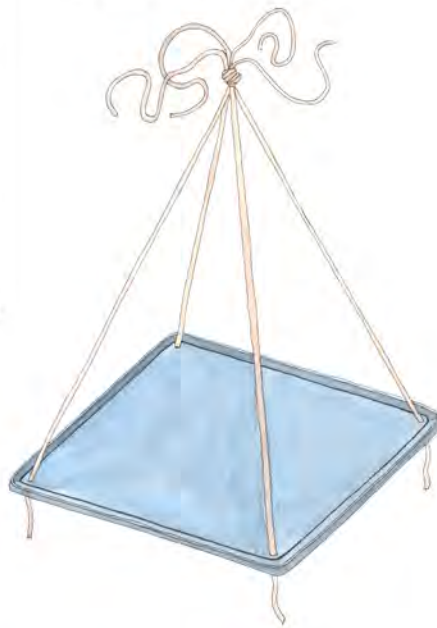
You will need:

- . A large plastic saucer or old lid
- . String
- . Some over-ripe, mushy fruit
- . Some flowers- either silk or real

1. Make four holes around the rim of your plastic lid or saucer making sure they are equally spaced so the feeder isn't lopsided.



2. Take four equal lengths of string and tie a knot in the end of each. Thread the strings through the holes and tie the four ends together above the feeder.



3. Place your over-ripe, mushy fruit on the feeder. Try fruit like bananas, peaches, oranges or strawberries.



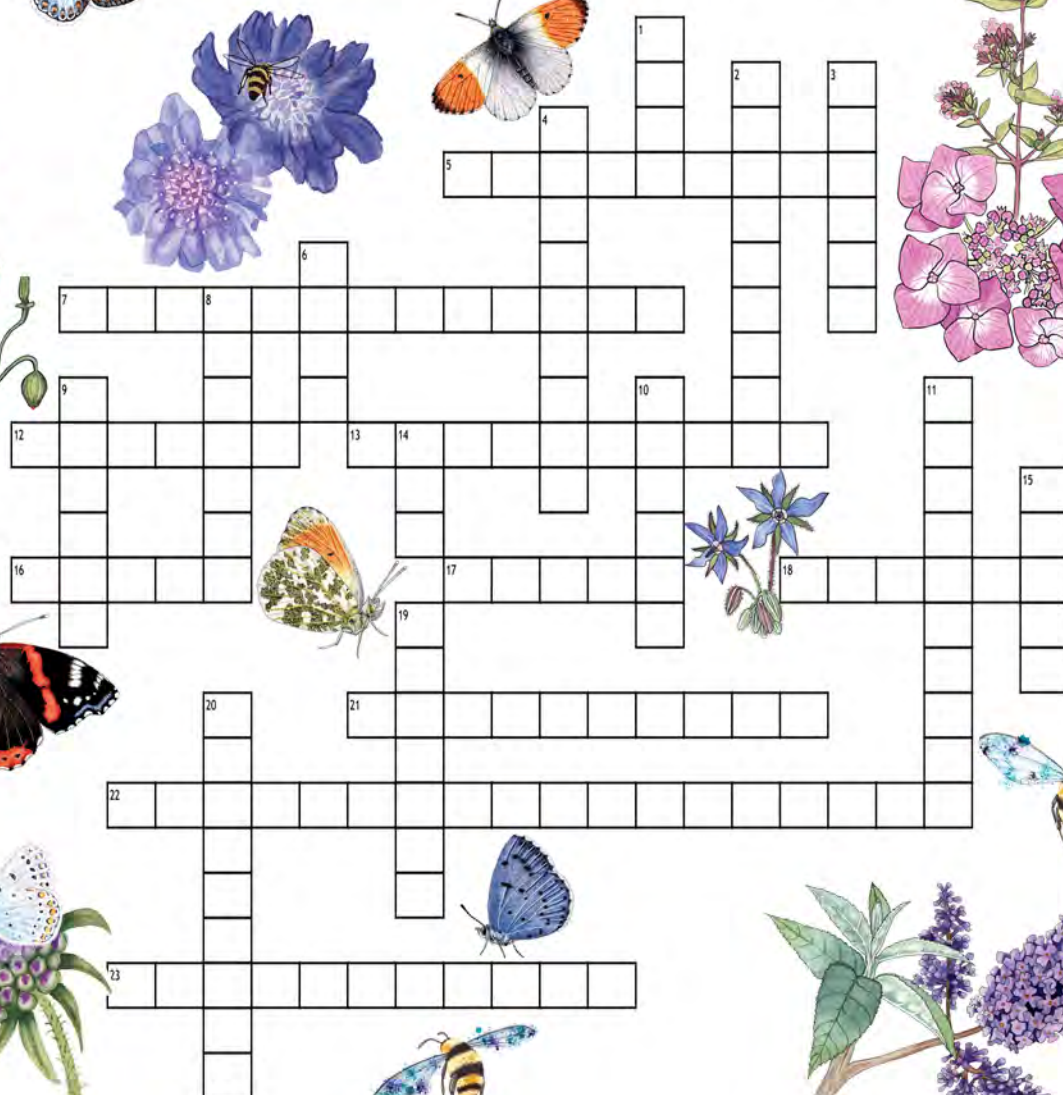
4. Hang your feeder near some fragrant flowers or attach some brightly coloured silk or real flowers to help attract the butterflies.



Butterfly feeders can attract other bugs too, so place them away from doors and windows and remember to clean them and replace the fruit when needed.



Brilliant Butterflies Crossword



Across

5. The hard-shelled pupa of a moth or butterfly
7. Complete change
12. Springtime concern for many
13. At risk of extinction
16. A ragged looking butterfly with orange and brown wings
17. The immature, wingless, feeding stage of an insect undergoing metamorphosis
18. An area for planting flowers or vegetables
21. Mottled military fatigues
22. Orange wings, square patches of black, yellow and white along the front edges
23. The wormlike larva of a butterfly or a moth



Down

1. Faberge collectables
2. A small, very bright blue butterfly
3. Six legged creature
4. The only large, lemon yellow butterfly in the UK
6. Night flying insect
8. Appendages on the head of an insect to touch and taste
9. Silky envelope spun by the larvae of many insects
10. Secretion to attract pollinators
11. Black butterfly with red fringes to the hindwings, red stripes across the forewings and white markings towards the wing tips
14. Butterfly catcher
15. Extensions of a main building
19. Reddish-purple butterfly with large, dramatic eye-spot patterns
20. A white butterfly with a bold orange forewing and light grey wingtip



Brilliant Bee & Butterfly Anagrams



1. EPCLEDKS DOWO _____

2. RYELA MBEBUELBE _____

3. EADD-IERTL BBEBEUELM _____

4. PKGEEARTEE _____

5. AIRYH ODTEOF EROLWF EBE _____

6. WAYTN MNGNII EBE _____



7. TSEBRIOMN _____



8. ASLLM POCPER _____

9. ATIDENP YDAL _____

10. RDE MILDAAR _____

11. ACMOM _____

12. SLAML ISHLTOSOTLEER _____

13. LMASL IWTEH _____

14. ELGAR EWTHI _____

15. TLIGNER _____



16. FFBU TDILAE UEHLBEBME _____

17. YOHLL UELB _____

18. NIE-ENDVREEG IWEHT _____

19. DRENGA MEUBEBELB _____

20. -RIGNETAOP _____

21. ITHEW ALDITE EBEBBELUM _____

22. HBYEOENE _____

23. PCAEKOC _____

24. WEOAMD WBORN _____

25. REET EBLUBBMEE _____

26. MCOONM EUBL _____

27. PSERKI _____

28. LRDEBMA WIEHT _____

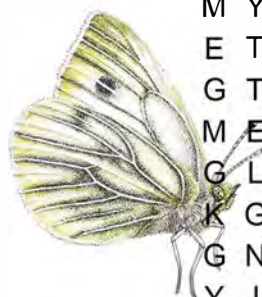
29. OCNMOM CRRDEA BEE _____

30. DER AMNOS BEE _____

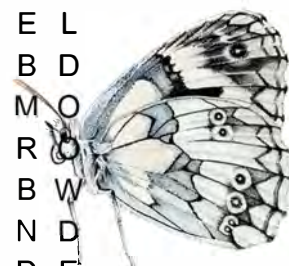
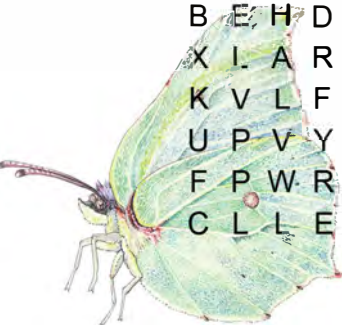




Brilliant Butterflies Wordsearch










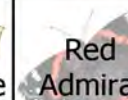








M Y N V S V V V B C V G K B C F D E N E R B D B
 E T I H W D E N I E V N E E R G C M B H E Z Y J
 G T R Z A V V I H T Q Z N Z E J I L Q C P N R W
 M E U M M I Z Y D S C L Q Z N S P J N I E W S C
 G L S J M H Y A P G A H R V O T E M S Q E C I P
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 G E Y M P H B F W M M S L D R T B N Q Q G I F J
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 K V L F B C C E J M I H A L N E M L L G Y M M E
 U P V Y Z E U L B N O M M O C A S L Q P Y S W P
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 C L L E H S E S I O T R O T L L A M S J E D Q O


























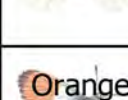





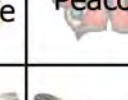
Painted Lady Small Copper Brimstone Marbled White
 Meadow Brown Large White Gatekeeper Peacock
 Red Admiral Small White Holly Blue Orange-tip
 Comma Ringlet Speckled Wood
 Small Tortoiseshell Common Blue Green-veined White



Butterfly Bingo Bash

 Holly Blue	 Brimstone	 Small White	 Speckled Wood
 Orange-tip	 Small White	 Brimstone	 Red Admiral
 Peacock	 Meadow Brown	 Large White	 Comma
 Small Tortoise-shell	 Large White	 Peacock	 Orange-tip










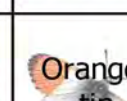




 Orange-tip	 Large White	 Small White	 Speckled Wood
 Peacock	 Red Admiral	 Comma	 Brimstone
 Small White	 Meadow Brown	 Small Tortoise-shell	 Large White
 Brimstone	 Holly Blue	 Peacock	 Orange-tip


 Orange-tip	 Meadow Brown	 Red Admiral	 Holly Blue
 Brimstone	 Small White	 Small Tortoise-shell	 Peacock
 Large White	 Orange-tip	 Brimstone	 Peacock
 Speckled Wood	 Comma	 Small White	 Large White

How to play Butterfly Bingo

Simply cut out the bingo cards and send them to your friends, family or join a 'Nature Calls' group.

Go out into your garden and over the coming weeks see who can spot enough butterflies to complete a line horizontally, vertically or diagonally or even a full house.

 Large White	 Small White	 Holly Blue	 Orange-tip
 Peacock	 Small White	 Brimstone	 Red Admiral
 Large White	 Comma	 Orange-tip	 Small Tortoise-shell
 Meadow Brown	 Brimstone	 Speckled Wood	 Peacock

 Small Tortoise-shell	 Speckled Wood	 Large White	 Orange-tip
 Red Admiral	 Comma	 Small White	 Large White
 Brimstone	 Holly Blue	 Small White	 Peacock
 Peacock	 Orange-tip	 Meadow Brown	 Brimstone



White Tailed



Red Tailed

Ginger Tailed



Bee Spotting



We tend to split bumblebees up into different tail colours (white/red/ginger) to make them easier for people to identify. You will find a beautifully illustrated bee poster to cut out and pin to your fridge as well as the Bumblebee Conservation Trusts 'Big 7' poster which shows the most common bumblebees you are likely to see in your garden, no matter where you live in the country.

The following information is from the Bumblebee Conservation Trust and it is well worth visiting their website www.bumblebeeconservation.org if you have access to the internet.

Whether you have a window box, allotment or large garden, planting bee-friendly flowers can help boost your local bumblebee population. In return, they will dutifully pollinate our flowers, crops, fruits and vegetables. No matter what size garden you have, you can do your bit for bumblebees by planting at least two kinds of bee-friendly flower for every flowering period. Bee-friendly flowers are rich in pollen and nectar which bees can easily access throughout the year.

The best habitats for bumblebees are those that offer plenty of flowers to feed on during the entire active phase of the bees' lifecycle (from March until October). This will ensure that there is a good supply of pollen at all of the crucial times such as when the queens are establishing nests, when the nests are growing/producing new queens or when queens are fattening up ready for hibernation

Spring	Summer	Autumn
Shady Areas		
Lungwort	Wild strawberry	Catmint
Hellebore	Monkshood	Ground Ivy
Comfrey	Aquilegia	Mahonia
Winter Heather	Borage	
Sunny Areas		
Crocus	Vipers bugloss	Verbena
California lilac	Lavender	Sunflower
Pieris	Foxglove	Cosmos
Dicentra	Geraniums	Honeysuckle
Herbs		
Margoram	Thyme	Sage
Chives	Mint	Rosemary

You can also use the Bumblebee Conservation 'BeeKind App' which scores your garden on its 'bee-friendliness'. Simply tick which plants and flowers you already have in your garden and it will recommend plants to improve the space for bumblebees and butterflies.



The following charts will help you to identify the various different bees species

The Big 7 poster

Common UK bumblebee species




As temperatures start to warm up, you should start to see some newly emerged bumblebee queens on the wing looking for food and nesting sites. We call the species that emerge first our early emergers, and they tend to be our most common bumblebee species.



Social bumblebee



Bumblebees listed by colour pattern

-  White-tailed bumblebee
-  Ginger-tailed bumblebee
-  Red-tailed bumblebee

Tree bumblebee (*Bombus hypnorum*)

Queen/Worker/Male



Recent immigrant from France. Unique brown, black and white colour pattern. This bumblebee has spread rapidly and is now widespread in England, Wales and Scotland.

Photo: Bumblebee worker



Buff-tailed bumblebee (*Bombus terrestris*)

Queen Worker



Queens and males usually have buff tails but workers' tails are largely white, usually with a hint of buff at the front margin. Yellow bands slightly darker/dirtier than in the White-tailed.

Photo: Queen bumblebee by Andrea Finch



Common carder bee (*Bombus pascuorum*)

Queen/Worker/Male



The only common brown bumblebee. Some forms have a very dark abdomen, but others are very light and similar to rarer carder bees.

Photo: Bumblebee worker



White-tailed bumblebee (*Bombus lucorum*)

Queen Male



Similar to Buff-tailed bumblebee but tail always pure white and bands brighter yellow. Males have yellow faces and often extra yellow bands.

Photo: Queen bumblebee by Andrea Finch



Early bumblebee (*Bombus pratorum*)

Queen Male



A common small bee with an orangey-red tail. Has one or two yellow bands and males have a yellow face. Rarely seen after July.

Photo: Male bumblebee by Gordon Mackie



Garden bumblebee (*Bombus hortorum*)

Queen/Worker/Male



A very long-tongued species with a white tail and yellow bands, including one at the rear of the thorax. Has a longer 'horse-like' face.

Photo: Male bumblebee by Andrea Finch



Red-tailed bumblebee (*Bombus lapidarius*)

Queen Male



Females are all black, with a red tail. Males have yellow hair on the face and a yellow band at the front of the thorax.

Photo: Queen bumblebee by Jack Reid



Types of Bee

Red Tailed Bumblebee



White Tailed Bumblebee



Buff Tailed Bumblebee



Heath Bumblebee



Tree Bumblebee



Garden Bumblebee



Early Bumblebee



Ashy Mining Bee

Tawny Mining Bee



Honeybee



Willoughby Leaf Cutter Bee



Wool Carder Bee



Hairy Footed Flower Bee



Common Carder Bee

Red Mason Bee



Rachel Corney Illustration



We need YOU!

Please take part in the PoMS insect pollinator count to help the wildlife in your garden

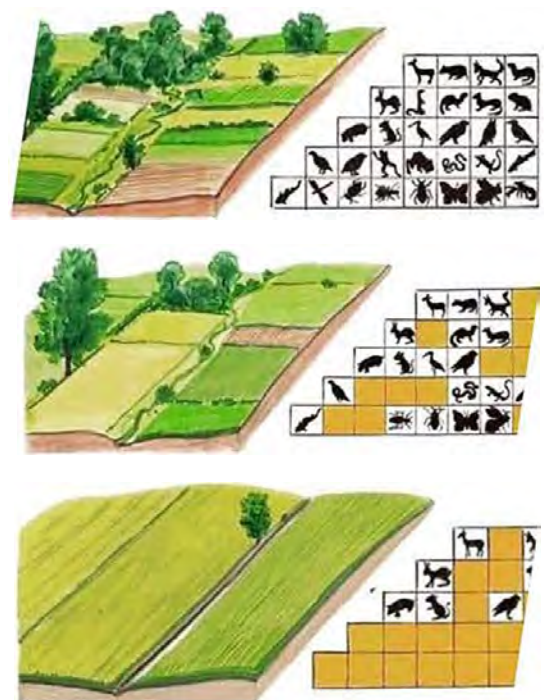
Bees, butterflies and insects are essential for pollinating the flowers, plants and crops, that support all other species including us. As you can see, the loss of hedgerows due to monoculture in the UK has significantly reduced the feeding areas for our pollinators but we can help by ensuring our gardens offer an array of pollinator plants to help create wildlife corridors throughout our villages and towns.

We really need your help to measure the number of bees, butterflies and insects that visit your garden each day. This information is vitally important and will tell us how insect pollinator populations are changing across Britain and what we can do to help them.

Run by the Pollinator Monitoring and Research Partnership (PMRP) the PoMS Fit Count is a "Flower-Insect Timed Count" which is a simple survey, counting all the insects that visit a patch of your garden during a 10 minute time span.

Please could you spare some to sit in your garden and watch the insects and flowers on warm, dry days between April to September.

The aim of the survey is to collect data on changes in the numbers of flower visiting insects across the UK"



<ck 'hc 'Wffmci hU': `ck Yf! ÆbgYVHja YX'fl ÆH'7ci bh'

%' Using the form in this pack, choose any sunny day between April and September, not too windy and with temperatures above 12°C.

&" Take your 50 cm x 50 cm quadrat with you to the garden, this is a square shape that you can make from sticks, tape or anything else you have available. It can be made using stiff cardboard or wire, or lengths of cane etc or using a 2-metre length of string, with knots tied in at each 50cm interval to allow you to arrange it in a square, or with folded gaffer tape.



Each side of the quadrat can be made from a strip of gaffer tape, about 54cm long (to allow for overlaps at the corners). Fold each strip back on itself so that it is no longer sticky. Cut a small strip of gaffer tape to bind the corners together.



3. Look for a nice flower patch out in your garden, place your Quadrat on the flower patch and count all the open flowers in the quadrat – describe what they look like using the options on the form.

Wherever possible we would like you to find one of the POMS target flower species, these include Hawthorne, dandelion, Nettle, Buttercup, White Clover, Buddleia, Lavender, Knapweed, Bramble, Thistle, Dogwood, Ragwort, Heather or Ivy.

Don't worry if you don't find the target flowers, you can use any other flowering plant that you know the name of which is visited by pollinators.



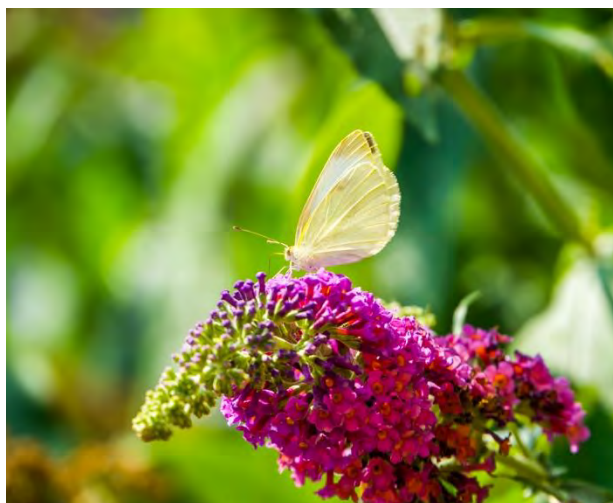
4. Then count all the insects that visit the flowers during the 10 minutes.



For help with identifying insect groups, use the charts included or if you have access to the internet you can watch a great 8 minute POMS video on the internet – Getting familiar with the FIT count insect groups - <https://youtu.be/1Fm1KKiUC8Q>

The key features to look out for when you see an insect are its size, hairiness, body shape, how pollen is distributed, eyes, antennae and behaviour in-flight.

5. Try to take a photograph of your flower patch as well as any insects you don't recognise.
6. If possible, submit your results online, you will need to register with the iRecord online recording system. First you will need to register on iRecord, go to www.brc.ac.uk and click on "Create new account". Once you have logged on to iRecord, you need to go to the FIT Count recording page www.brc.ac.uk/irecord/poms-fit-count. When you enter your findings please use the tag 'GB Bug Hunt'
7. There are two other options for sending in your data, you can call someone who is taking part in the 'Nature Calls' group which is a lovely way to discuss your findings or you can send your completed forms by post when you are able to.
8. Try to carry out a count in your garden daily if the weather permits to see how the pollinators and flowers are changing but if you'd prefer to do it once a week or once a month, that's great too. All of the data is extremely useful, please note the number of flower heads is likely to change.



There are more forms in the appendix, you can print more forms at home via the internet at www.graduateplanet.co.uk/thegreatbritishbughunt or call Kate Evans on 01789 601496 to receive them in the post. You can send your findings in via the internet or post them to Graduate Planet, Cherry Tree, Church Street, Hampton Lucy, Warwickshire, CV358BE

So go out there, count your pollinator visitors and have fun!

FIT Count field recording form

Tag: GB Bug Hunt

A Flower-Insect Timed Count can be carried out at any time of day between the beginning of April and the end of September, wherever a suitable target flower can be found, and when the weather is dry and warm:

- If sky is **clear** (less than half cloud) the minimum temperature for a count is **13°C**
- If sky is **cloudy** (half cloud or more) the minimum temperature for a count is **15°C**

1. About you

Your name: _____

- ☐ I am new to identifying wildlife
- ☐ I am familiar with identifying some wildlife (e.g. birds or butterflies) but not most pollinating insects
- ☐ I am familiar with recognising the main **groups** of pollinating insect
- ☐ I am confident in identifying the commonly-occurring pollinating insects **to species level**

2. Date and location of count

Date of count: _____

Location name: _____ (e.g. town/village, not full address)

Grid ref if known (or select from online map later): _____

Habitat (tick one box that is the best match):

- | | |
|--|---|
| <input type="checkbox"/> Garden | <input type="checkbox"/> Amenity grassland (usually mown short) |
| <input type="checkbox"/> School grounds | <input type="checkbox"/> Farm crops or grassy pastures |
| <input type="checkbox"/> Parkland with trees | <input type="checkbox"/> Upland moorland |
| <input type="checkbox"/> Churchyard | <input type="checkbox"/> Lowland heath |
| <input type="checkbox"/> Grassy verge or hedgerow edge | <input type="checkbox"/> Brownfield or other 'waste ground' |
| <input type="checkbox"/> Grassland with wild flowers (e.g. meadow) | <input type="checkbox"/> Woodland |
| <input type="checkbox"/> Other habitat type (please describe): _____ | |

3. Target flower (from the list on the left if possible)

Please use one of the 'target flowers' if you possibly can:

- Dandelion
- Buttercup
- White Dead-nettle
- Hawthorn
- Bramble/Blackberry
- Lavender (English)
- Common/Greater Knapweed
- Heather (*Calluna* or *Erica*)
- Hogweed
- White Clover
- Ragwort
- Thistle (*Carduus* or *Cirsium*)
- Buddleja
- Ivy

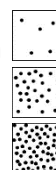
(only choose another insect-attracting flower if none of the above are available)

Which target flower have you chosen? _____

☐ Target flowers cover less than half of 50x50cm patch

☐ Target flowers cover about half of patch

☐ Target flowers cover more than half of patch



Number of flowers in patch: _____

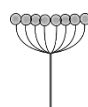
I counted: ☐ individual flowers



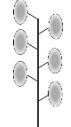
☐ flower heads



☐ flower umbels



☐ flower spikes



Is your 50x50cm patch of target flowers:


- ☐ Growing in a larger patch of the same flower
- ☐ Growing in a larger patch of many different flowers
- ☐ More or less isolated

4. FIT Count

Tag: GB Bug Hunt

Once you are ready to start, check your timer so that you can record for exactly ten minutes. Please count **EVERY** insect that you see that **LANDS** on one of your target **FLOWERS** (if you're not sure what type it is just add it to the "Other insects" category). Please try to count each individual insect just once, and try not to lean over the flowers you are watching, as this can cast shadows and prevent insects approaching.

Time of count start (use British Summer Time): _____

Insect group	Tally of number seen:  = 7, etc.
Bumblebees	
Honeybees	
Solitary bees	
Wasps (including ichneumon wasps)	
Hoverflies (including 'non-typical' hoverflies)	
Other flies	
Butterflies and moths	
Beetles (larger than 3mm)	
Small insects (such as pollen beetles) less than 3mm long	
Other insects	

5. Weather conditions

Sky above your location:

- ☐ All or mostly blue
☐ Half blue and half cloud
☐ All or mostly cloud

During the 10-minute count, was your 50×50cm patch:

- ☐ Entirely in sunshine
☐ Partly in sun and partly shaded
☐ Entirely shaded

Wind strength (for all plants in area, not just target flowers):

- ☐ Leaves still/moving occasionally
☐ Leaves moving gently all the time
☐ Leaves moving strongly

Don't forget to **take a photo** of your target flower species, and either **add your counts** to the iRecord form www.brc.ac.uk/irecord/poms-fit-count or post them to Graduate Planet, Cherry Tree, Church Street, Hampton Lucy, Warwickshire, CV358BE

You can also add photos of *examples* of the insects you have seen, but this is optional (please don't take photos during the count as this may disturb the visiting insects).



Nature Calls



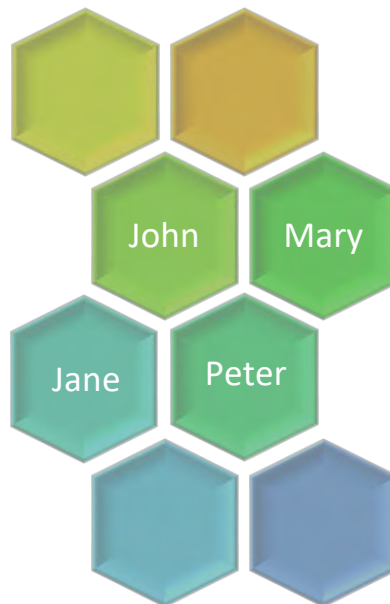
If you are taking part in the FIT Count to measure the creatures in your garden, we would love for you to work as part of a group. This involves 4 people who are self-isolating working with one another to discuss their findings. Its useful to discover the differences across an area and it would really help people who are not particularly technical to be able to send their data in for collection.



If you would like to be part of a nature calls group in your area and talk to other people about your sightings, simply register your telephone number or email address we will you find you a group of 3 other like minded people who would like to hear about your discoveries.

One member of your team may be willing to upload the findings onto the internet, which will save people in your group having to send their data in by post.

This information is hugely valuable and will become part of the PoMS National data, which is helping to support the future of bees and butterflies within the UK.



Working together we can really make a difference

These calls not only help to measure valuable data, they also provide some much needed company for people who are isolating alone. It's wonderful to be able to speak to someone else who is going through the same situation about something so interesting.

If you would like to become part of a group, please call Kate Evans on 01789 601496 or email kate.evans@graduateplanet.co.uk to register your name and telephone number and you will be given the telephone numbers for 3 other people who you can contact on a weekly or monthly basis, depending on what works for you.

Your can also register online at www.graduateplanet.co.uk/thegreatbritishbughunt



This is a good opportunity to talk about the things you have discovered, support others in their search and maybe forge some new friendships in the process.

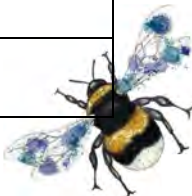
Nature Calls Team



If you have decided to become part of a 'Nature Calls' group to talk to other people about your discoveries, you can use the following chart to keep a note of their contact details.



Team.....		
Name	Telephone number	Email address



Notes of your discoveries, what did you see, where and when?



How to make a

Bug Hotel

You will need:

- . Planks of wood
- . Old bricks
- . Straw, hay and dead leaves
- . Hollow bamboo canes
- . Pine cones
- . Woodchips and bark
- . Moss
- . Old terracotta pots
- . Stones
- . Old roofing tiles/slates
- . Cardboard tubes and corrugated cardboard



1. Pick a suitable site for your bug hotel. The ground needs to be level and firm. Near a wall or hedge is ideal, but keep it away from vegetable beds! Start by putting down a sturdy base of bricks. Try using an H-shape and leave small gaps between the bricks.

2. Fill the gaps using the materials you have collected. A bottom layer of moss covered with stones and broken pots makes a cool, damp home ideal for frogs and toads. When a layer is finished lay some planks or tiles over the top then put down some more bricks to start a new layer.



3. Try making layers using dead wood and bark for centipedes, beetles, spiders and woodlice. Hollow bamboo canes are good for solitary bees. Dry leaves, sticks, straw and pine cones are ideal for ladybirds and other insects and cardboard tubes filled with corrugated cardboard encourage lace wings.

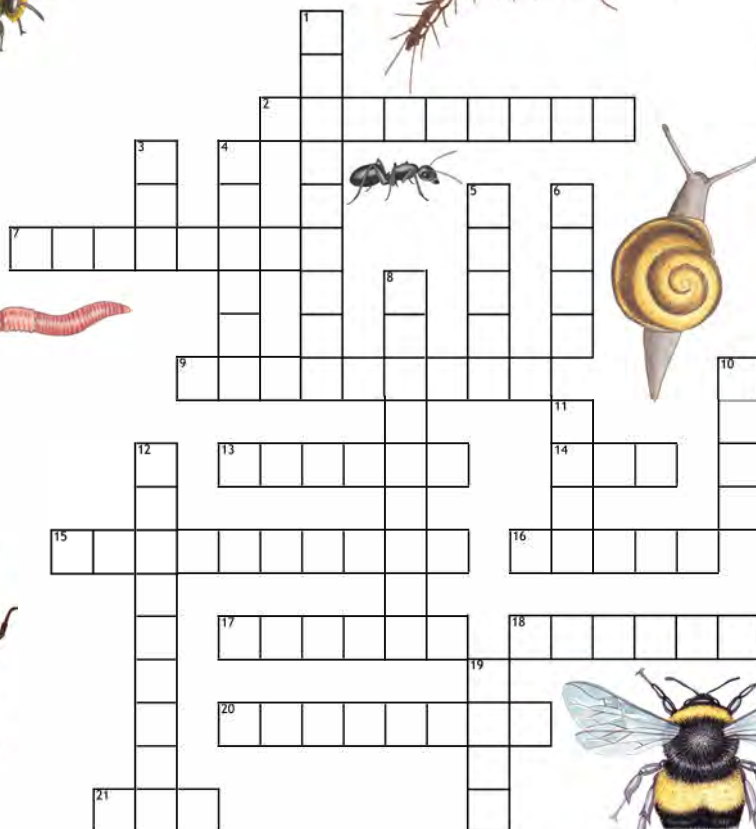
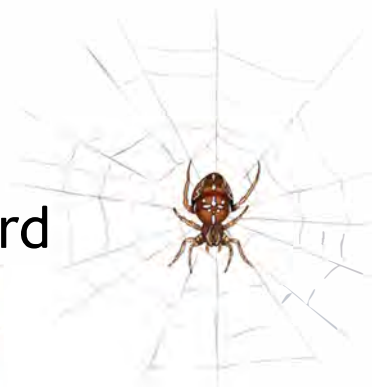


4. The idea is to create lots of different cosy crevices for all sorts of bugs. You can build as many layers as you like as long as the structure remains stable. Around 1 metre in height is a good limit. When you are finished 'roof' your bug hotel with old tiles or slates to keep in relatively dry.





Beastly Bug Crossword



Across

2. Two pairs of legs on each body segment
7. Who ate all the aphids?
9. Flying flame thrower
13. Eavesdrop insect
14. Tiny soldier that makes up 10% of all animal life on earth
15. Long leaping beetle
16. Common rose bug
17. Don't stir up this nest
18. Good family game /drive
20. Disguised as a wasp I can't sting
21. Key to flower pollination

Down

1. Stinkbug that produces a strong smell when threatened
3. Nuisance in the ointment
4. Walk an eightsome
5. Epitome of slowness
6. Like a train, can travel in both directions
8. Cost of the shoes! / Chilopoda
10. To the light we go
11. Repeated stinger
12. Roll up! Roll up!
19. Goopy garden pest





Beastly Bug Anagrams



1. EDR AITDLE BBBLUEEME _____

2. EIUBLAL-TDE FLEAYLSMD _____

3. ENHOY BEE _____

4. RDUNOG LETEEB _____

5. LIEEVW _____

6. EFOHPROPGR _____

7. KICRTEC _____

8. IDPAH _____

9. IIEPLMED _____

10. OULDEOQWS _____

11. CIEETPEND _____

12. ALPARCTIRLE _____

13. ODFNRLAYG _____

14. TNA _____

15. OMONMC WSAP _____

16. IPSDRE _____

17. BEETLE _____

18. AWETHRORM _____

19. RLTTUBEFY _____

20. DANGER LIASN _____

21. RIGWA _____

22. LBGDUHSE _____

23. READGN LEBEBBUEM _____

24. RYDBALID _____

25. AHSNATEVMR ESIPDR _____

26. LFYCNAER _____

27. EPNOLL ETLEBE _____

28. EOFYLHVR _____

29. EGARL KALCB ULGS _____

30. COMMON RAEDRC BEE _____





Beastly Bug Wordsearch

X	U	H	O	N	E	Y	B	E	E	D	Y	B	E	E	T	L	E	K	D	E	P	K	G
W	G	E	H	E	S	G	M	C	P	B	E	S	V	S	O	H	Q	K	I	V	Y	S	K
W	D	S	M	T	T	U	N	I	D	V	P	N	E	I	I	X	Q	R	S	Y	P	X	N
Y	A	H	B	N	I	I	J	I	L	I	M	N	P	I	X	S	S	C	D	W	Y	T	I
Z	J	E	A	G	P	I	U	S	D	L	L	I	A	N	S	N	E	D	R	A	G	H	H
F	M	I	W	R	B	L	U	E	T	A	I	L	E	D	D	A	M	S	E	L	F	L	Y
F	Y	L	G	G	E	B	R	C	I	P	G	P	U	L	M	C	Q	M	F	W	C	H	R
Q	K	D	G	A	O	D	H	F	A	F	L	F	E	N	A	M	G	I	F	N	W	Q	Q
T	I	B	O	W	R	V	T	J	R	U	K	O	K	D	C	M	E	A	R	W	I	G	S
P	W	U	H	Z	E	D	C	A	J	R	D	M	N	R	E	Y	Z	D	O	O	V	D	T
C	S	G	L	P	Q	A	E	O	I	X	C	R	I	C	K	E	T	C	G	Y	O	O	D
D	U	H	T	N	N	T	A	N	M	L	I	T	D	R	U	D	M	U	H	R	G	O	Y
A	I	G	I	Z	H	E	H	X	B	M	E	R	J	Q	V	V	M	E	O	Y	Q	M	L
X	L	H	O	Y	K	Z	K	C	X	U	O	D	A	Z	P	D	P	X	P	Z	J	R	F
A	A	T	P	E	I	A	P	E	E	S	M	N	B	L	R	S	V	E	P	M	F	O	N
Z	T	C	R	A	R	S	M	P	W	N	L	B	W	U	L	X	D	H	E	E	A	W	O
W	E	P	V	W	D	O	M	U	W	U	T	R	L	A	M	I	X	A	R	W	S	H	G
U	Y	A	X	J	U	J	A	V	E	G	Z	I	O	E	S	B	P	H	S	S	U	T	A
I	E	S	U	O	L	D	O	O	W	Z	L	S	P	T	B	P	L	R	K	P	Y	R	R
E	W	D	R	I	B	Y	D	A	L	L	I	V	E	E	W	E	D	E	E	P	J	A	D
S	N	N	M	R	W	M	N	M	Z	R	C	H	O	V	D	W	E	H	B	T	M	E	G
E	I	P	L	A	U	P	V	X	L	L	L	S	D	M	B	E	F	E	X	E	A	X	R
E	T	M	Y	Q	D	S	O	O	N	B	F	Y	L	F	R	E	T	T	U	B	E	C	M
K	H	L	L	E	L	T	E	E	B	D	N	U	O	R	G	R	R	Y	B	D	N	R	K



Red Tailed Bumblebee Ladybird Blue-tailed Damselfly -

Garden Snail Honey Bee Ground Beetle Weevil Froghopper

Cricket Aphid Millipede Woodlouse Centipede Caterpillar

Dragonfly Ant Common Wasp Spider Beetle Earthworm

Butterfly Earwig Sheildbug Garden Bumblebee

Answers on page





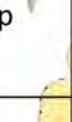
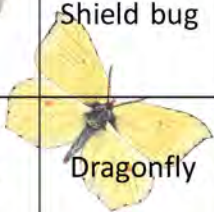

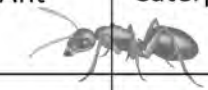



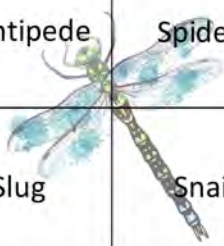


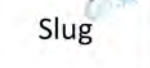



Brilliant Bug Bingo


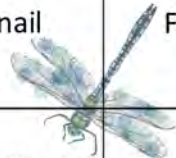



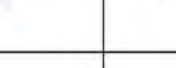



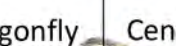






Simply cut out the bingo cards and send them to your friends, family or your 'Nature Calls' group.

Go out into your garden and over the coming weeks see who can spot enough of them to complete a line either horizontally, vertically or diagonally or even a full-house.

















Brilliant Bug Bingo

Ladybird 	Butterfly 	Beetle 	Millipede 
Wasp 	Shield bug 	Ant 	Caterpillar 
Earwig 	Dragonfly 	Centipede 	Spider 
Woodlouse 	Cricket 	Slug 	Snail 



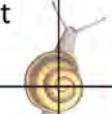
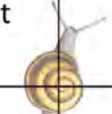
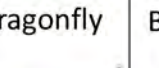

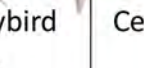
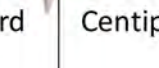
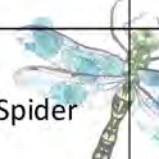




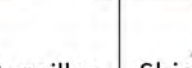


Brilliant Bug Bingo

Butterfly 	Snail 	Frog 	Bumblebee 
Caterpillar 	Woodlouse 	Earwig 	Shield bug 
Wasp 	Dragonfly 	Centipede 	Ladybird 
Millipede 	Ant 	Slug 	Spider 

Brilliant Bug Bingo

Caterpillar 	Slug 	Earwig 	Millipede 
Woodlouse 	Shield bug 	Frog 	Cricket 
Wasp 	Snail 	Dragonfly 	Beetle 
Bumblebee 	Centipede 	Butterfly 	Ant 

Brilliant Bug Bingo

Millipede 	Earwig 	Cricket 	Slug 
Dragonfly 	Bumblebee 	Ladybird 	Centipede 
Spider 	Snail 	Woodlouse 	Worm 
Butterfly 	Caterpillar 	Shield bug 	Ant 



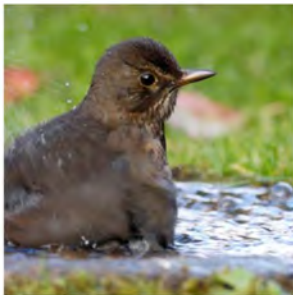
Your feathered friends



You will be amazed by the range of birds that visit your garden. A really interesting thing to do if you have a mobile phone or an iPad is to download one of the many free birdsong identification apps. A very simple but effective one is 'Bird Song ID (UK)' which helps you to discover which birds are singing and you quickly learn to recognise them. If you do use one of these apps, it's a great way to play Birdsong Bingo using sound instead of sight.

The following information is from the RSPB website who also offer a great birdsong id page <https://www.rspb.org.uk/birds-and-wildlife/bird-songs/what-bird-is-that/>

Birds need water for drinking and bathing, most small birds need to drink at least twice a day so water is particularly important during the winter when natural supplies may be frozen and in dry, hot weather during the summer when water can be hard to find.



Water to bathe in is just as important for birds, especially in winter. It is essential that they keep their feathers in good condition and dampening the feathers loosens the dirt and makes their feathers easier to preen. When preening, birds carefully rearrange the feathers and spread oil from the preen gland so they remain waterproof and trap an insulating layer of air underneath to keep them warm.

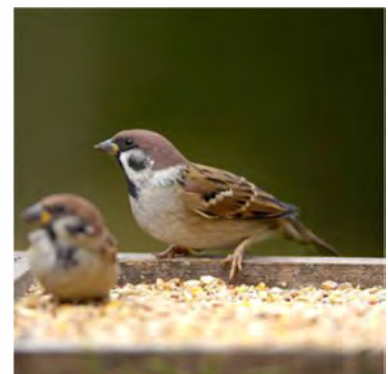
If you have a birdbath or decide to build/buy one, it's important to keep this clean to prevent birds catching diseases. A layer of algae, dead leaves or bird droppings will soon build up, so give the bath a thorough clean every week or so.

Different birds prefer different foods, so try these different types of food and adapt to what works best in your garden. Avoid all salted foods as they dehydrate birds. Never put out loose peanuts, dry, hard foods or large chunks of bread during the spring or summer months. Parent birds might take these back to their nests and their young can choke on it.

Why not order some good quality feeders and roofed bird tables, which will keep food dry and stop it going off.

As a good start, try:

- A hanging plastic feeder containing sunflower hearts for finches, tits and sparrows,
- A hanging mesh feeder with peanuts for tits,
- A hanging mesh feeder with fat balls for tits and sparrows.
- The next step up is a nyjer seed feeder for goldfinches
- A ground feeder or bird table with an oat/fruit/fatty nibbles mix for robins and blackbirds



Once you've got your feeders up in the right place with the right food, sit back with a cup of tea and watch. It's better than any soap opera!



British Garden Birds



Greenfinch

♂



♀



♀

Blackbird



♂

Coal Tit



♂



♀

Chaffinch

Great Tit



Song Thrush



Goldfinch



House Sparrow



♀



♂

Bullfinch

Duncock



Wren



♂



Robin



Blue Tit

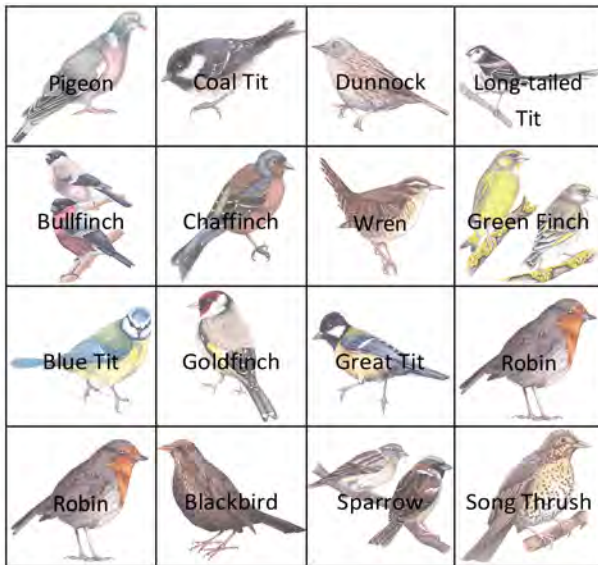


Long-tailed Tit



Rachel Corney Illustration

Bird Bingo Bash



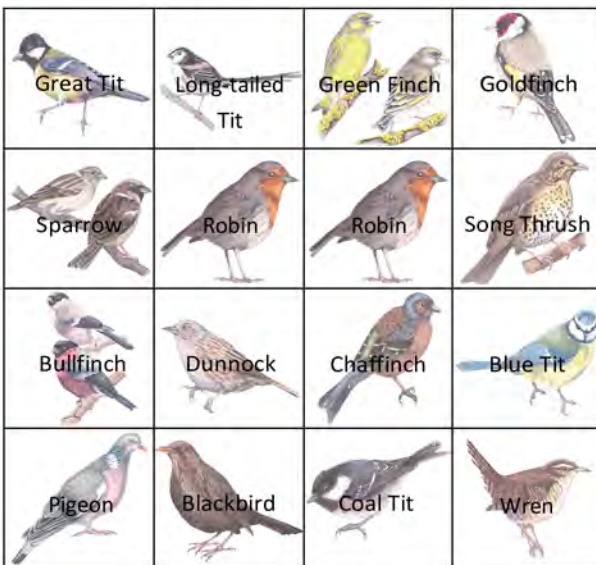
How to play Bird Bingo

Simply cut out the bingo cards and send them to your friends, family or join in with your 'Nature Calls' group.

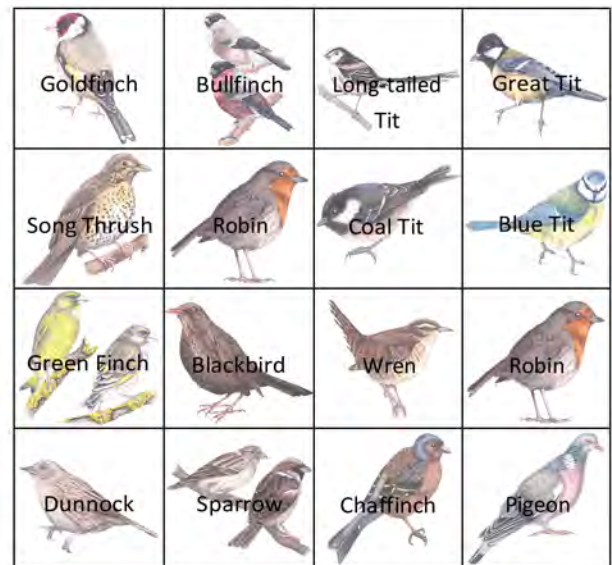
Go out into your garden and over time see who will win the first line or full house. You can win a line horizontally, vertically or diagonally.

If you use a mobile phone or an Ipad why not download a bird song App called 'Bird Song Identifier UK' and try Bird Song Bingo, it's a wonderful way to discover which birds visit your garden and you will learn to recognise birds calls.

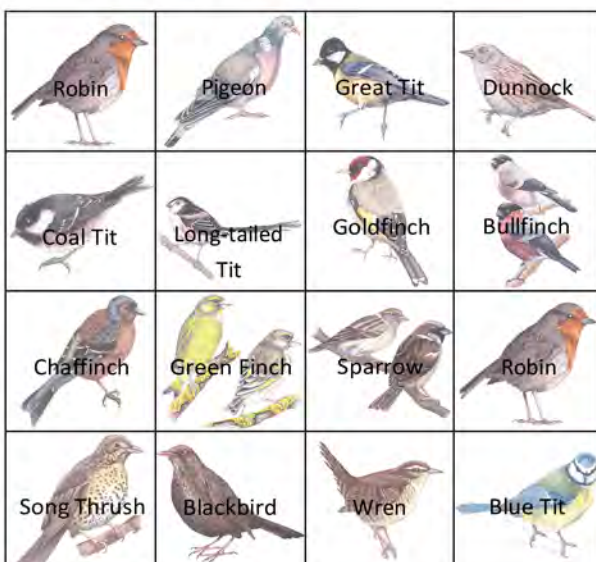
Bird Bingo Bash



Bird Bingo Bash



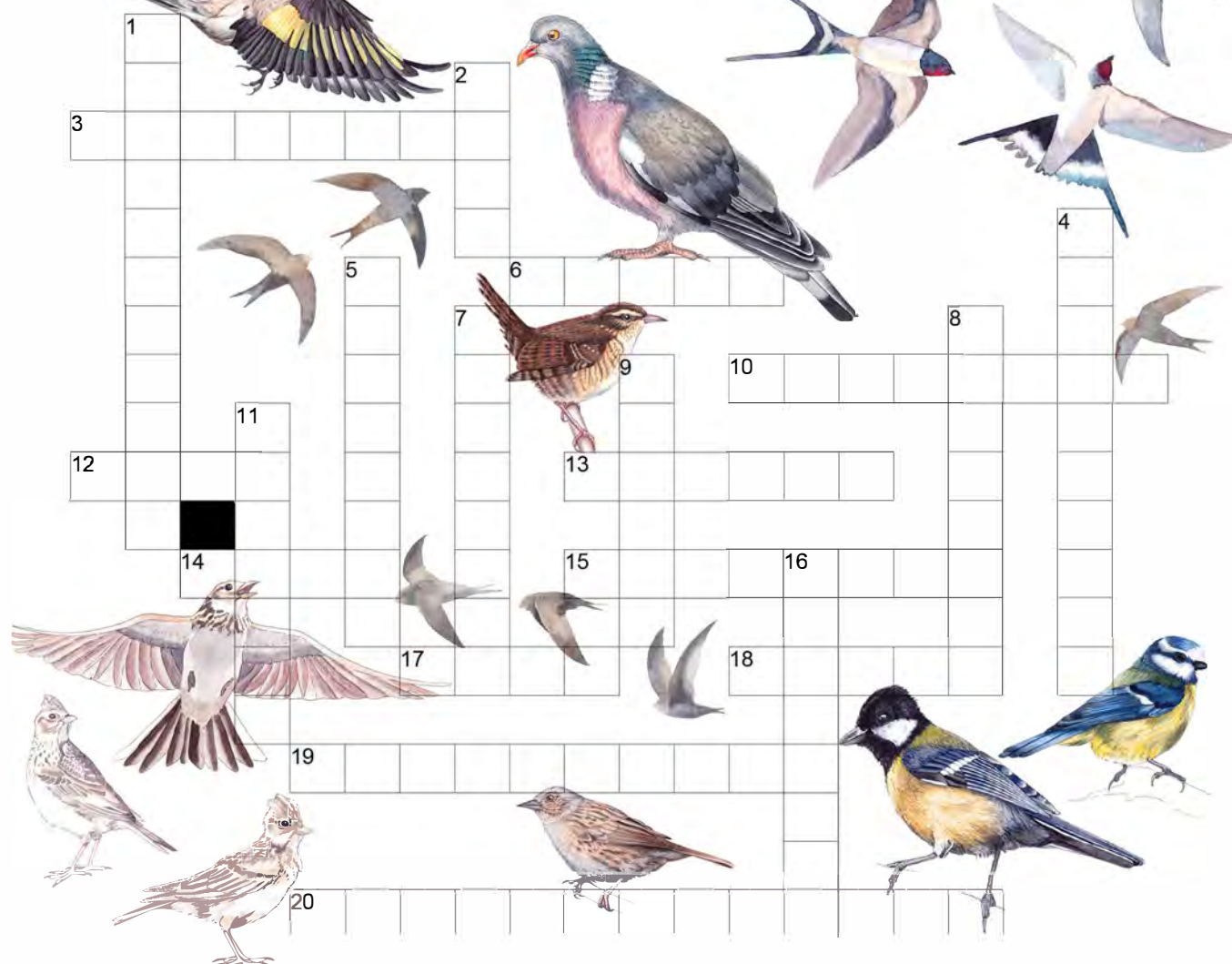
Bird Bingo Bash



Bird Bingo Bash



Beautiful Birds Crossword



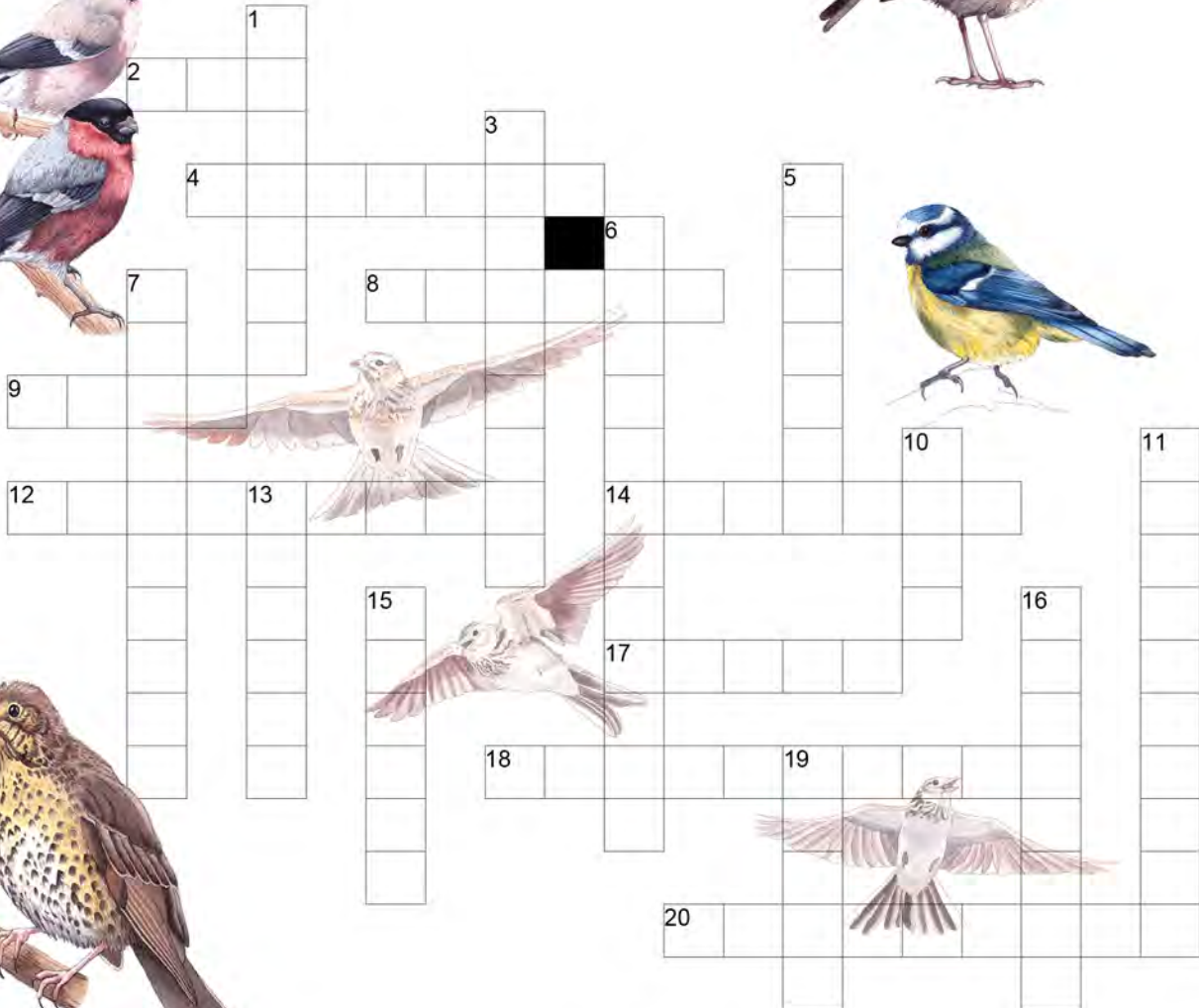
Across

- 3. A process that birds use to apply oil to their feathers
- 6. Birds and Angels share these
- 10. Fence of bushes
- 12. Soft, fluffy feathers that provide insulating undercoat in adult birds
- 13. On the wing
- 14. Egg container
- 15. The act of keeping the eggs warm until they are hatched
- 17. In place of teeth, all birds have this structure
- 18. Family Histories
- 19. Morning song
- 20. A bird expert

Down

- 1. A flock of starlings
- 2. Cake ingredients
- 4. Colouring and behaviour that make it hard to be seen
- 5. Watering hole
- 7. Using the stars, sun, geographical landmarks, and the Earth's magnetic field to
- 8. Pillow filling
- 9. Group of the same species that nest together
- 11. Many songbirds eat these in the summer
- 16. A film and Sebastian Faulks' WW1 novel

Do you know your birds?



Across

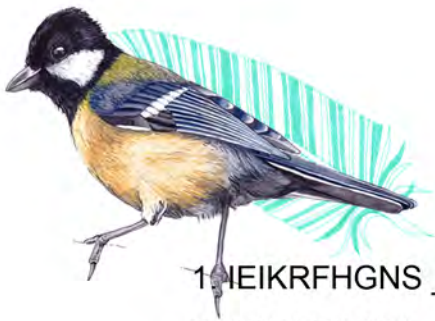
- 2. A silent hunter of the night
- 4. Watch out for your chips
- 8. Fostered perforce
- 9. Tiny busybody
- 12. Sand loving bird that lives near the sea
- 14. Mud and spit under the eaves
- 17. Traditional festive bird
- 18. Who's that tapping?
- 20. Red faced, black hat with yellow and black wings



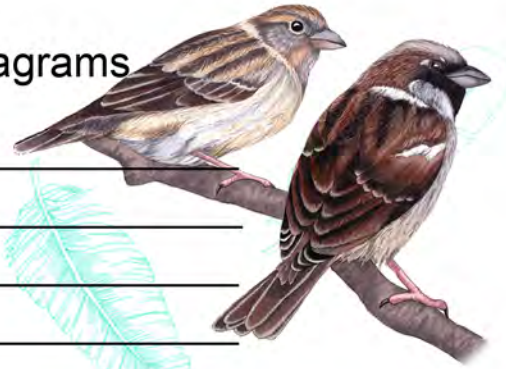
Down

- 1. A bird with a blue head and a yellow chest
- 3. Bossy Yellow beak
- 5. Black and white runner
- 6. Quarrelsome crowds
- 7. The greenest in all the land
- 10. Symbol for peace
- 11. Brown with a spotted chest, beautiful singer
- 13. A friendly city bird
- 15. Two for joy
- 16. Iridescent copycat
- 19. King of birds

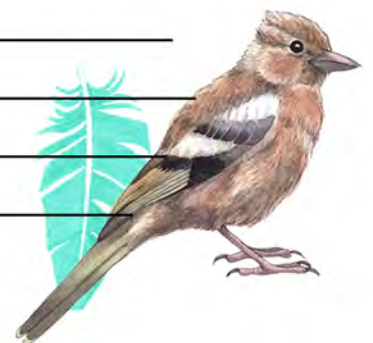




Beautiful Birds Anagrams



1. HEIKRFHGNS _____
2. ABRLDBCIK _____
3. AIGSLNRT _____
4. HLIBFUNLC _____
5. ASOLWWL _____
6. ANRB OWL _____
7. OLCA ITT _____
8. LIEA-LDNGOT TTI _____
9. GCLONDFIH _____
10. EPTANHAS _____
11. EUOHS POARWSR _____
12. MOOMCN PEEERRETREC _____
13. TAGRE ITT _____
14. CACIHFFHN _____
15. OHSEU INTARM _____
16. OEWDRECPKO _____
17. ORINB _____
18. STWIF _____
19. RDE ITEK _____
20. OOUKCC _____
21. GSLULEA _____
22. NFUFPI _____
23. IPEAGM _____
24. -BRDEASDEETR NTTHHCAU _____
25. GNENRHCFIE _____
26. SOGN SRTHUH _____
27. NDONCKU _____
28. MXNA AWTESEAHRR _____
29. AAWDKJC _____
30. UELB ITT _____





Beautiful British Birds Wordsearch

U S K J W D G N A I L I O V S F O N P K Z W W V
 C H X K C O V Z H X G U W C O J Y E P R D V O X
 W O Y S P W T M L I Y T C Z G R Z C S Z I P O S
 C U F A K L K T I T T A E R G S E L V G M A D B
 H S J K T N I B O R L S F O X A C P I Z P K P P
 A E E F M U M X P F I D R I B K C A L B H I E M
 F S W R B U L L F I N C H W A H D Y Q C Y V C Y
 F P I R B E F W T L O N G T A I L E D T I T K X
 I A C H E J O E G S X W G U K V S Z S C S V E P
 N R M Q V N T O Y W L Q W Y L Q T H N B O F R W
 C R F Z Q O L S M Y K C O N N U D J S O H R C C
 H O A E S D J M J A B E Q Q P C V G V A X J B G
 Q W K Z F K R J B E J D F C O A L T I T D S T P
 D K W I D W Y T N X I U T I A G Z U D H B R H N
 T C N G U G O X S T V H H W W V S X N P Y E P S
 P C I B T S J L Y O Z V B C O F C W V P A J E F
 H N X A F V W I L Q N G L B N A K B U S W Q U P
 R M M Q P Z R B Q A S G M Q M I L H A P T D H S
 P H L L E N B B T L W N T Y K U F N F Z T K W J
 M Y G S H N E M L Q S S O H E M T N N D T U Y R
 Y P X Z J Y G L H X B X Y T R S W P E V Y Q Z S
 D W P J M O S F Z W G L I X F U I D A E E L W N
 W U B U J B Z K J X X T X S N U S M V F R L N K
 B S J Y H Z X M S U K H W L Y I R H E N F G U M

Owl Swallow Pheasant Woodpecker Robin Wren Dunnock

House Sparrow Song Thrush Bullfinch Goldfinch Chaffinch

Long-tailed tit Blue tit Great tit Coal tit Blackbird Greenfinch





Encouraging Hedgehogs into your garden

Hedgehog's are one of our favourite garden mammals. Seldom seen during the day, their nocturnal wanderings take them through several gardens in the evening, where they feed on a variety of invertebrates such as snails and slugs, beetles, caterpillars and worms

They are very good at running, climbing and swimming. In cold winter weather they will go into hibernation, only emerging when conditions are warmer.

Their nests may be quite large, usually made of mosses, grass, leaves and other garden debris. They can be found at the base of thick hedges, under thick bramble bushes, garden sheds or piles of rubbish.



How to make them feel welcome.

Make sure they have lots of thick dense undergrowth and a variety of lengths of grass to hide and nest in. You can also make your garden a hot spot for the slugs, snails and bugs that hedgehogs like to munch on.



You can also try to provide hedgehogs with supplementary food and water. This is particularly useful during periods of drought when natural insect foods may be harder to come by. Their varied diet allows them to eat all kinds of foods we have around the home! **Never feed hedgehogs milk or bread** because they can't digest them - it upsets their stomachs. A particular favourite is hedgehog food, complete cat biscuits or meaty cat or dog food.

Hedgehogs like to move from garden to garden and it's useful to help give them openings between boundaries. If your garden is contained by a fence or wall, try to make them a small opening on either side, so that they can easily wander from neighbour to neighbour.



Build a hedgehog home

You can use the following instructions to build your own hedgehog house or you can buy from a whole range of different hog houses online including the RSPB ones <https://shopping.rspb.org.uk/hedgehogs/>

Whichever path you choose to take, you'll be giving a safe place to nest and shelter to the hedgehogs that share our gardens!

Once you've got your box and you're ready to find a place for it in your garden, out of direct sunlight, with the entrance facing away from prevailing winds. Put it in cover, under thick vegetation for example, or under the garden shed. If you know where a hedgehog has built its own nest in the past, consider putting your new one there, or in a similar environment.

It may take a year for a hedgehog to take up home in your box, resist the temptation to keep removing the lid to check if the box is being used. It's always best not to disturb any potential hedgehog residents.



This information is from the RSPB website www.rspb.org.uk/ where there is a whole host of information about supporting the birds and wildlife in your garden.

How to make a Hedgehog House

You will need:

- . A wooden crate
- . Lots of sticks and twigs
- . Dry leaves and hay/ straw
- . Old bricks

1. Find a quiet, sheltered spot (ideally near a hedge) for your crate. Make sure the entrance faces away from the wind.



2. Cover the crate with sticks. If you put them in a tepee shape they will be nice and sturdy.



3. Pile lots of leaves over your sticks. Make sure you don't leave any gaps and tuck them in to every nook and cranny, you want your hedgehog to be warm!



4. Place two bricks upright either side of the entrance gap then create an archway by placing a third brick over the top of them.

FIT Count field recording form

Tag: GB Bug Hunt

A Flower-Insect Timed Count can be carried out at any time of day between the beginning of April and the end of September, wherever a suitable target flower can be found, and when the weather is dry and warm:

- If sky is **clear** (less than half cloud) the minimum temperature for a count is **13°C**
- If sky is **cloudy** (half cloud or more) the minimum temperature for a count is **15°C**

1. About you

Your name: _____

- ☐ I am new to identifying wildlife
- ☐ I am familiar with identifying some wildlife (e.g. birds or butterflies) but not most pollinating insects
- ☐ I am familiar with recognising the main **groups** of pollinating insect
- ☐ I am confident in identifying the commonly-occurring pollinating insects **to species level**

2. Date and location of count

Date of count: _____

Location name: _____ (e.g. town/village, not full address)

Grid ref if known (or select from online map later): _____

Habitat (tick one box that is the best match):

- | | |
|--|---|
| <input type="checkbox"/> Garden | <input type="checkbox"/> Amenity grassland (usually mown short) |
| <input type="checkbox"/> School grounds | <input type="checkbox"/> Farm crops or grassy pastures |
| <input type="checkbox"/> Parkland with trees | <input type="checkbox"/> Upland moorland |
| <input type="checkbox"/> Churchyard | <input type="checkbox"/> Lowland heath |
| <input type="checkbox"/> Grassy verge or hedgerow edge | <input type="checkbox"/> Brownfield or other 'waste ground' |
| <input type="checkbox"/> Grassland with wild flowers (e.g. meadow) | <input type="checkbox"/> Woodland |
| <input type="checkbox"/> Other habitat type (please describe): _____ | |

3. Target flower (from the list on the left if possible)

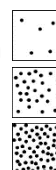
Please use one of the 'target flowers' if you possibly can:

- Dandelion
- Buttercup
- White Dead-nettle
- Hawthorn
- Bramble/Blackberry
- Lavender (English)
- Common/Greater Knapweed
- Heather (*Calluna* or *Erica*)
- Hogweed
- White Clover
- Ragwort
- Thistle (*Carduus* or *Cirsium*)
- Buddleja
- Ivy

(only choose another insect-attracting flower if none of the above are available)

Which target flower have you chosen? _____

- ☐ Target flowers cover less than half of 50x50cm patch
- ☐ Target flowers cover about half of patch
- ☐ Target flowers cover more than half of patch



Number of flowers in patch: _____

I counted:

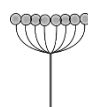
☐ individual flowers



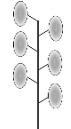
☐ flower heads



☐ flower umbels



☐ flower spikes



Is your 50x50cm patch of target flowers:


- ☐ Growing in a larger patch of the same flower
- ☐ Growing in a larger patch of many different flowers
- ☐ More or less isolated

4. FIT Count

Tag: GB Bug Hunt

Once you are ready to start, check your timer so that you can record for exactly ten minutes. Please count **EVERY** insect that you see that **LANDS** on one of your target **FLOWERS** (if you're not sure what type it is just add it to the "Other insects" category). Please try to count each individual insect just once, and try not to lean over the flowers you are watching, as this can cast shadows and prevent insects approaching.

Time of count start (use British Summer Time): _____

Insect group	Tally of number seen:  = 7, etc.
Bumblebees	
Honeybees	
Solitary bees	
Wasps (including ichneumon wasps)	
Hoverflies (including 'non-typical' hoverflies)	
Other flies	
Butterflies and moths	
Beetles (larger than 3mm)	
Small insects (such as pollen beetles) less than 3mm long	
Other insects	

5. Weather conditions

Sky above your location:

- ☐ All or mostly blue
☐ Half blue and half cloud
☐ All or mostly cloud

During the 10-minute count, was your 50×50cm patch:

- ☐ Entirely in sunshine
☐ Partly in sun and partly shaded
☐ Entirely shaded

Wind strength (for all plants in area, not just target flowers):

- ☐ Leaves still/moving occasionally
☐ Leaves moving gently all the time
☐ Leaves moving strongly

Don't forget to **take a photo** of your target flower species, and **add your counts** to the iRecord form (www.brc.ac.uk/irecord/poms-fit-count)! You can also add photos of *examples* of the insects you have seen, but this is optional (please don't take photos during the count as this may disturb the visiting insects).

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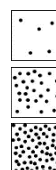
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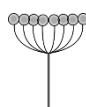
I counted: ☐ individual flowers



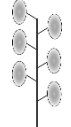
☐ flower heads



☐ flower umbels



☐ flower spikes



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
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Location name: _____ (e.g. town/village, not full address)

Grid ref if known (or select from online map later): _____

Habitat (tick one box that is the best match):

- | | |
|--|---|
| <input type="checkbox"/> Garden | <input type="checkbox"/> Amenity grassland (usually mown short) |
| <input type="checkbox"/> School grounds | <input type="checkbox"/> Farm crops or grassy pastures |
| <input type="checkbox"/> Parkland with trees | <input type="checkbox"/> Upland moorland |
| <input type="checkbox"/> Churchyard | <input type="checkbox"/> Lowland heath |
| <input type="checkbox"/> Grassy verge or hedgerow edge | <input type="checkbox"/> Brownfield or other 'waste ground' |
| <input type="checkbox"/> Grassland with wild flowers (e.g. meadow) | <input type="checkbox"/> Woodland |
| <input type="checkbox"/> Other habitat type (please describe): _____ | |

3. Target flower (from the list on the left if possible)

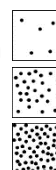
Please use one of the 'target flowers' if you possibly can:

- Dandelion
- Buttercup
- White Dead-nettle
- Hawthorn
- Bramble/Blackberry
- Lavender (English)
- Common/Greater Knapweed
- Heather (*Calluna* or *Erica*)
- Hogweed
- White Clover
- Ragwort
- Thistle (*Carduus* or *Cirsium*)
- Buddleja
- Ivy

(only choose another insect-attracting flower if none of the above are available)

Which target flower have you chosen? _____

- ☐ Target flowers cover less than half of 50x50cm patch
- ☐ Target flowers cover about half of patch
- ☐ Target flowers cover more than half of patch



Number of flowers in patch: _____

I counted:

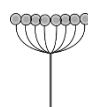
☐ individual flowers



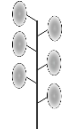
☐ flower heads



☐ flower umbels



☐ flower spikes



Is your 50x50cm patch of target flowers:


- ☐ Growing in a larger patch of the same flower
- ☐ Growing in a larger patch of many different flowers
- ☐ More or less isolated

4. FIT Count

Tag: GB Bug Hunt

Once you are ready to start, check your timer so that you can record for exactly ten minutes. Please count **EVERY** insect that you see that **LANDS** on one of your target **FLOWERS** (if you're not sure what type it is just add it to the "Other insects" category). Please try to count each individual insect just once, and try not to lean over the flowers you are watching, as this can cast shadows and prevent insects approaching.

Time of count start (use British Summer Time): _____

Insect group	Tally of number seen:  = 7, etc.
Bumblebees	
Honeybees	
Solitary bees	
Wasps (including ichneumon wasps)	
Hoverflies (including 'non-typical' hoverflies)	
Other flies	
Butterflies and moths	
Beetles (larger than 3mm)	
Small insects (such as pollen beetles) less than 3mm long	
Other insects	

5. Weather conditions

Sky above your location:

- ☐ All or mostly blue
☐ Half blue and half cloud
☐ All or mostly cloud

During the 10-minute count, was your 50x50cm patch:

- ☐ Entirely in sunshine
☐ Partly in sun and partly shaded
☐ Entirely shaded

Wind strength (for all plants in area, not just target flowers):

- ☐ Leaves still/moving occasionally
☐ Leaves moving gently all the time
☐ Leaves moving strongly

Don't forget to **take a photo** of your target flower species, and **add your counts** to the iRecord form (www.brc.ac.uk/irecord/poms-fit-count)! You can also add photos of *examples* of the insects you have seen, but this is optional (please don't take photos during the count as this may disturb the visiting insects).

Crossword, Anagram and Wordsearch Answers

Brilliant Butterflies Crossword

Across	Down	
5. Chrysalis	1. Eggs	14. Net
7. Metamorphosis	2. Holly Blue	15. Wings
12. Pollen	3. Insect	19. Peacock
13. Endangered	4. Brimstone	20. Orange-tip
16. Comma	6. Moth	
17. Larva	8. Antenna	
18. Garden	9. Cocoon	
21. Camouflage	10. Nectar	
22. Small tortoiseshell	11. Red Admiral	
23. Caterpillar		

Brilliant Bee & Butterfly Anagrams

1. Speckled Wood	11. Comma	21. White Tailed
2. Early Bumblebee	12. Small Tortoiseshell	Bumblebee
3. Red-tailed	13. Small White	22. Honeybee
Bumblebee	14. Large White	23. Peacock
4. Gatekeeper	15. Ringlet	24. Meadow Brown
5. Hairy Footed	16. Buff Tailed	25. Tree Bumblebee
Flower Bee	Bumblebee	26. Common Blue
6. Tawny Mining Bee	17. Holly Blue	27. Skipper
7. Brimstone	18. Green-Veined White	28. Marbled White
8. Small Copper	19. Garden Bumblebee	29. Common Carder Bee
9. Painted Lady	20. Orange-Tip	30. Red Mason Bee
10. Red Admiral		

Beastly Bug Crossword

Across		Down	
2. Millipede	15. Froghopper	1. Shieldbug	8. Centipede
7. Ladybird	16. Aphid	3. Fly	10. Moth
9. Dragonfly	17. Hornet	4. Spider	11. Wasp
13. Earwig	18. Beetle	5. Snail	12. Woodlouse
14. Ant	20. Hoverfly	6. Worm	19. Slug
	21. Bee		

Beastly Bug Anagrams

1. Red Tailed Bumblebee	11. Centipede	21. Earwig
2. Blue-tailed Damselfly	12. Caterpillar	22. Shieldbug
3. Honey Bee	13. Dragonfly	23. Garden Bumblebee
4. Ground Beetle	14. Ant	24. Ladybird
5. Weevil	15. Common Wasp	25. Harvestman Spider
6. Froghopper	16. Spider	26. Crane fly
7. Cricket	17. Beetle	27. Pollen Beetle
8. Aphid	18. Earthworm	28. Hoverfly
9. Millipede	19. Butterfly	29. Large Black Slug
10. Woodlouse	20. Garden Snail	30. Common Carder Bee

Across Beautiful Birds Crossword Down

3. Preening	15. Incubate	1. Murmuration	7. Navigate
6. Wings	17. Beak	2. Eggs	8. Feathers
10. Hedgerow	18. Trees	4. Camouflage	9. Colony
12. Down	19. Dawn Chorus	5. Birdbath	11. Insects
13. Flying	20. Ornithologist		16. Birdsong
14. Nest			

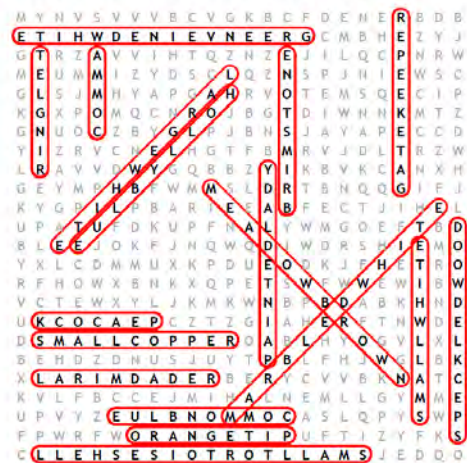
Do you know your birds?

Across		Down	
2. Owl	14. Swallow	1. Blue tit	11. Song Thrush
4. Seagull	17. Robin	5. Wagtail	13. Pigeon
8. Magpie	18. Woodpecker	6. House Sparrow	15. Magpie
9. Wren	20. Goldfinch	7. Greenfinch	16. Starling
12. Sandpiper		10. Dove	19. Eagle

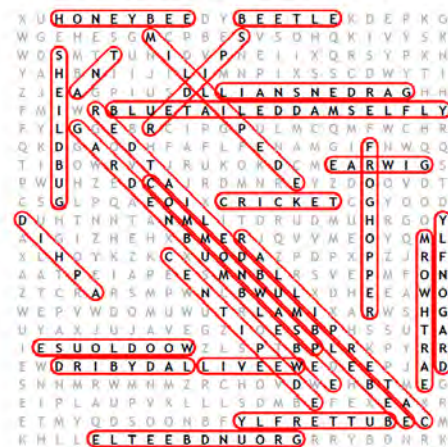
Beautiful Birds Anagrams

1. Kingfisher	11. House Sparrow	21. Seagull
2. Blackbird	12. Common	22. Puffin
3. Starling	13. Tree Creeper	23. Magpie
4. Bullfinch	14. Great Tit	24. Red-breasted Nuthatch
5. Swallow	15. Chaffinch	25. Greenfinch
6. Barn Owl	16. House Martin	26. Song Thrush
7. Coal Tit	17. Woodpecker	27. Dunnock
8. Long-tailed Tit	18. Robin	28. Manx Shearwater
9. Goldfinch	19. Swift	29. Jackdaw
10. Pheasant	20. Red Kite	30. Blue Tit
	21. Cuckoo	

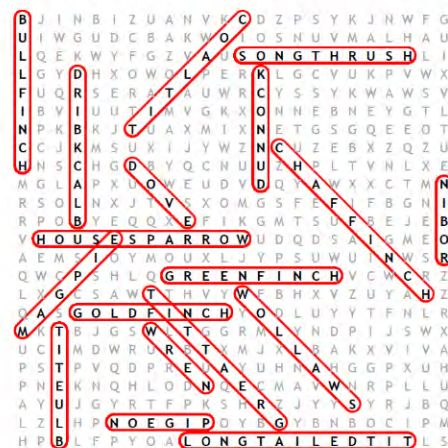
Brilliant Butterflies Wordsearch



Beastly Bug Wordsearch



Beautiful Birds Wordsearch



Thank you for your participation in the Great British Bug Hunt.

Working together, we can make the world of difference to our wonderful pollinators

Please send in your photos and videos of the discoveries you make, you can email them to kate.evans@graduateplanet.co.uk and they will be displayed on the www.graduateplanet.co.uk/thegreatbritishbughunt website or if you use social media you can put them on facebook, Instagram or Twitter, please use hashtag #Bugs&Beasties

Your pictures can win prizes including gardening tools, plants and tickets to the National Trust and the Eden Project that you can enjoy when you are able to roam again.



This project has been created, illustrated and funded by



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The Heart of England Community Foundation have very generously funded the 'Great British Bug Hunt' as part of their coronavirus resilience appeal, supporting the most vulnerable members of the community during this crisis
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Rachel Corney is a very talented artist who specialises in detailed watercolour and ink illustrations. You can see more of her work or contact her at: facebook @rachelcorneyillustration
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A huge thank you to DS Smith plc, an international packaging business based in Redditch who have generously donated all of the packaging for this project
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