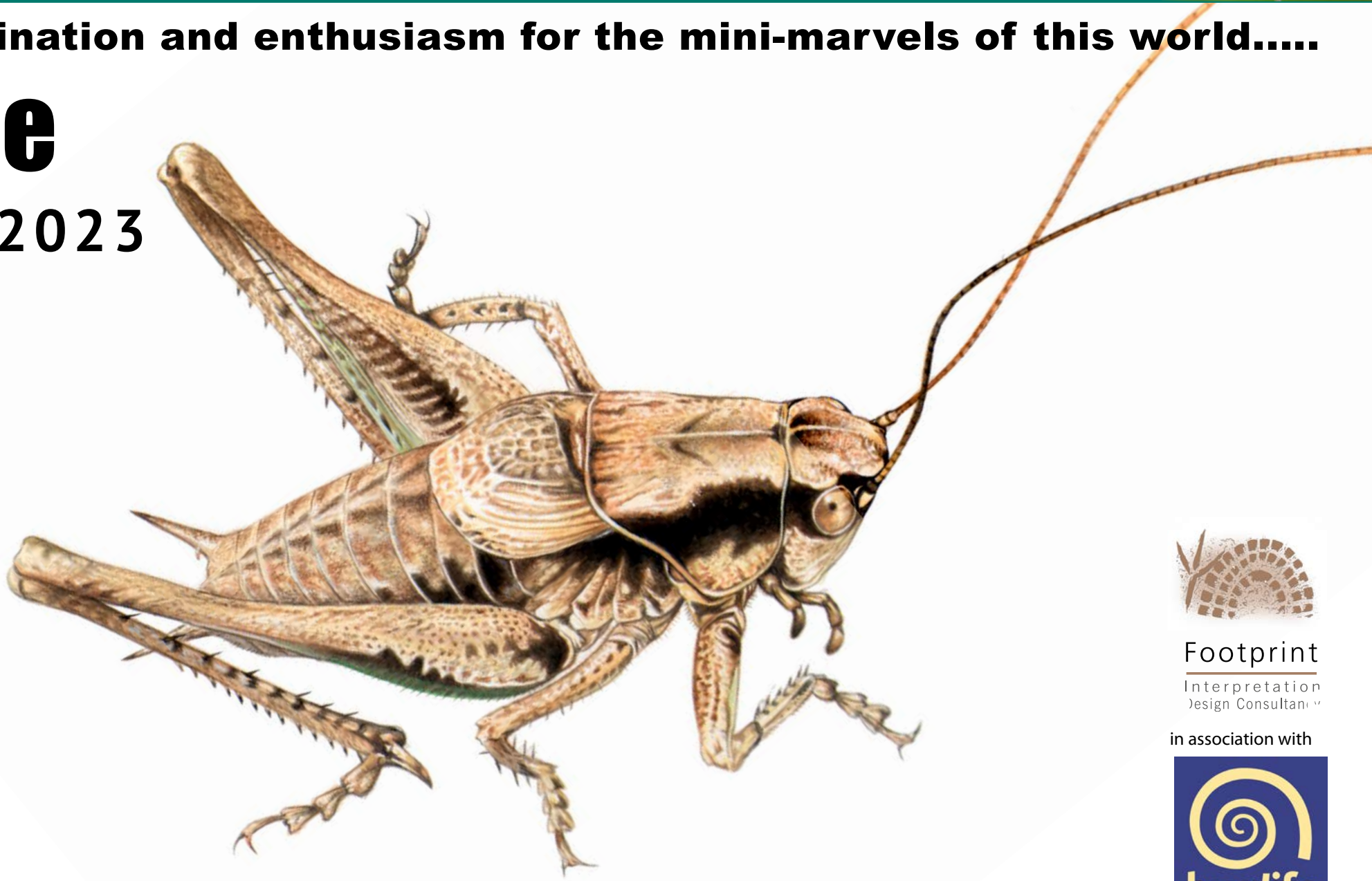
Do you have the bug ?

A fascination and enthusiasm for the mini-marvels of this world.....

Nine

Nov 2023



Footprint
Interpretation
Design Consultancy

in association with

buglife

.....for stories from the insect nation.

Do you have the bug?

Are you a professional entomologist.
Do you study them for a living.
Is it an amateur interest.
Do you find them fascinating.
Are you just curious and want to know more.

This magazine is for you.

If you would like to contribute to the magazine, you would be most welcome to write something and/or send in some images (photographic or illustrative).

You would be credited.

If I have misidentified any of the species or any information is incorrect, please let me know.

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Image: 06.09.2023. An Indian summer here in the UK, attracting this femaileCommon Darter to the garden

Contents

You can go straight to a page by clicking on the contents below.
Click on some images and blow them up larger.
Some link to other information including short movies.

We are well into Autumn here in the UK. It was mid-September when there was a significant drop in insect activity both in the garden and our local green spaces. Early September had been very good weather-wise and prolonged the window for a number of species.

Some insects cling on as winter approaches and on sunnier days you may see wasps and bees feeding on plants that still provide pollen at this time of year, or visiting fruiting berries.

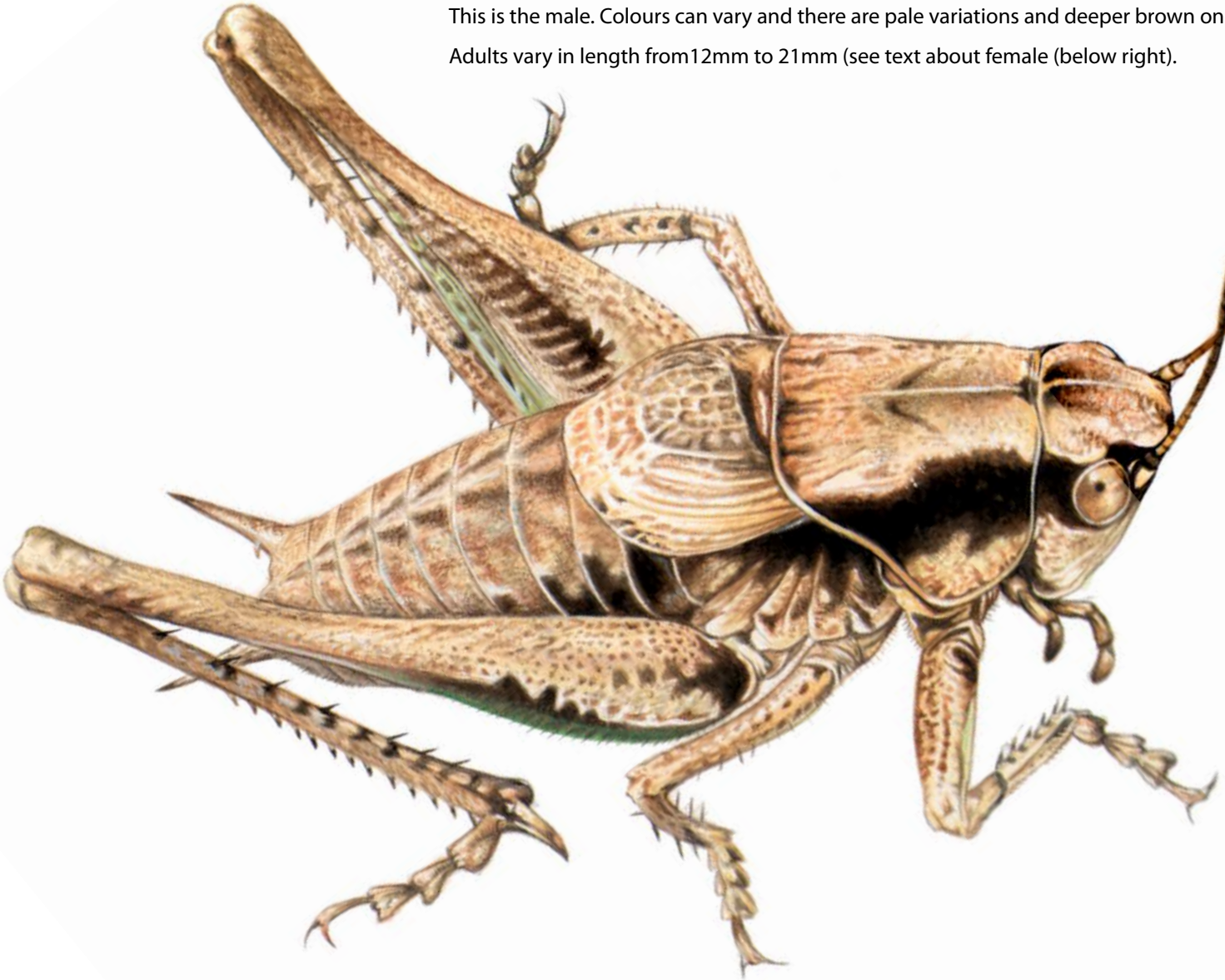
First week of September and the Golden Rod was attracting a range of species to its vibrant yellow flowers. By the 21 September the flowers had gone over.

Dark Bush Cricket

Front cover

A number of species of Orthoptera (crickets and grasshoppers) can be heard singing well into September, particularly if the weather is reasonably good. Crickets, being more nocturnal in their habits can often be heard singing through to October. The Dark Bush Cricket is a species of grassland, scrub, woodland margins and hedgerows, both in the countryside and in urban situations, gardens included.

This is the male. Colours can vary and there are pale variations and deeper brown ones. Adults vary in length from12mm to 21mm (see text about female (below right).



Below. A female Dark Bush Cricket with its egg-laying ovipositor, which makes it several millimetres longer than the males.
This individual has a darker brown body.

Bush Crickets

Secretive in nature, our bush crickets are overlooked by many. We will all have heard the songs of a a few species without making the connection. We will run a feature on bush crickets in a later issue or as a special supplement, but in the meantime a short introduction to some of the other UK species.

Great Green Bush-cricket

The largest bush cricket in the UK and an impressive insect all-told. Adult males can reach 36mm and females 70mm, with their sickle-like ovipositors. Not easily found, despite its loud, metallic, sewing machine like call, eminating from the middle of shrubby or scrubby vegetation in a variety of habitats, including grasslands, meadows, hedgerows and even gardens.

Long-winged Conehead

The coneheads (we have two UK species) get their name from the angled shape of their heads. Found in rough grassland where it will stretch itself along a grass stem to blend in and avoid detection. Its very quiet song (a soft hissing) is barely audible to our ears. This is a nymph. When mature its wings will stretch beyond its abdomen. The black stripe along its back will become brown.

Short-winged Conehead

Smaller than the Long-winged Conehead, with as its name suggests, shorter wings. These can vary in length across individuals. Like its larger relative, it has spread from coastal habitats further inland and can be found around lakes, river floodplains and even moist grasslands. Assummes the same grass hugging posture as the Long-winged Conehead as means of camouflage.

Bush Crickets (cont)

Roesel's Bush-cricket

The adult is a really striking bush-cricket. Body is usually dark brown but can also be greenish. It has a broad cream/greem margin around the sides of its pronotum and three pale yellow spots on the sides of its thorax. Historically a species of southern UK saltmarsh and dunes, but now spreading northwards into a variety of habitats.

Oak Bush-cricket

As its name suggests, this cricket is associated with Oaks, but it also inhabits a number of different deciduous trees. As a result it is found in gardens. Like the Speckled Bush Cricket, it is attracted to light at night, being rarely seen during the day. It does not stridulate to make a song, but the males drum on a leaf. The sound is audible several meters away.

Speckled Bush-cricket

You are probably more likely to see a Speckled Bush Cricket in the garden than any other cricket species. That said it does not make itself obvious, hiding among the green foliage of a variety of plants. It is attracted to the lights in houses at night and you may find it on the walls of your home.

‘Butterfly’ Bush

Buddleja. It’s called the Butterfly Bush for a reason. The plant is synonymous with a number of well known species of butterfly (Red Admiral, Peacock, Small Tortoiseshell, Comma, Small White and Painted Lady included), who are attracted to it wherever it grows and it will grow anywhere, given the chance.

Buddleja davidaii is the best known species and the one that earned the butterfly tag. It also attracts a range of other species to ts late summer flowers.

Painted Lady

Comma

Volucella Inanis

Rhingia campestris

Red-tailed bumblebee

‘Butterfly’ Bush

There are a number of other varieties of Buddleja.
This is ***Buddleja weyeriana***.

‘Sungold’ as it is commonly known has arching branches bearing narrow, dark green leaves and rounded clusters of orange-yellow flowers. The flowers are present from mid to late summer through to the autumn.

Like ***davidaii*** its flowers are well loved by a variety of insects, including butterflies.
Here a female Brimstone.

It is 11 November as I wirte this and the large shrub in our garden is still carryinga good number of flowers, attracting a pair of red admirals, bumble bees and hoverflies.

Drone Fly

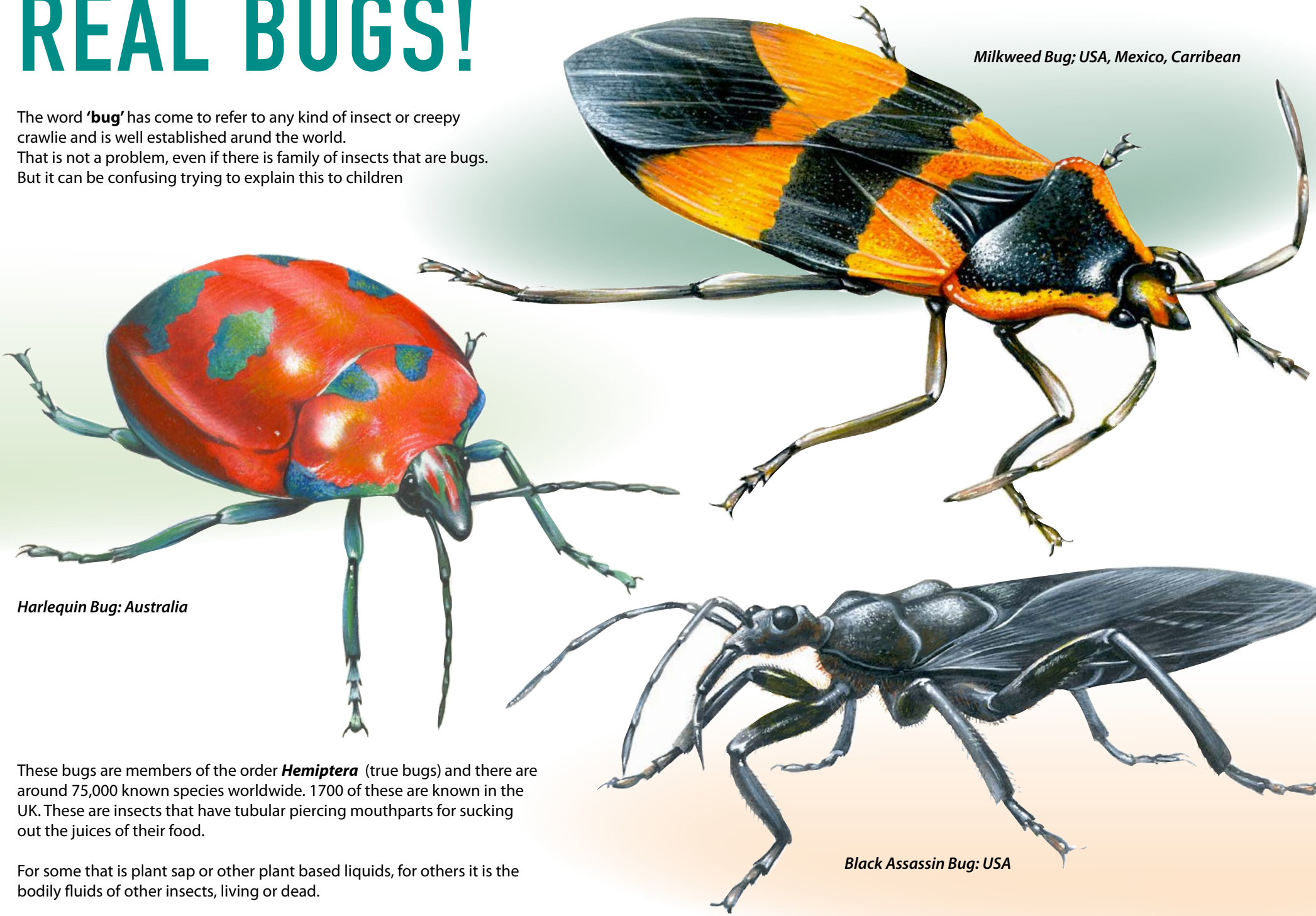
Honey Bee

Box tree Moth

Large Yellow Underwing

REAL BUGS!

The word **'bug'** has come to refer to any kind of insect or creepy crawlie and is well established arund the world.
That is not a problem, even if there is family of insects that are bugs.
But it can be confusing trying to explain this to children



Milkweed Bug; USA, Mexico, Carribean

Harlequin Bug: Australia

Black Assassin Bug: USA

These bugs are members of the order ***Hemiptera*** (true bugs) and there are around 75,000 known species worldwide. 1700 of these are known in the UK. These are insects that have tubular piercing mouthparts for sucking out the juices of their food.

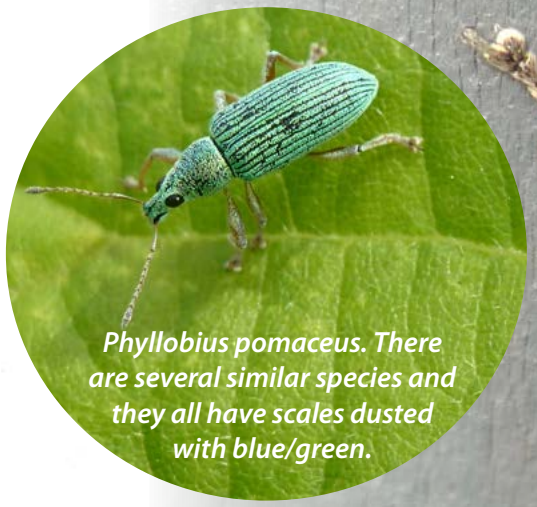
For some that is plant sap or other plant based liquids, for others it is the bodily fluids of other insects, living or dead.

WEEVILS!

'Weevils are pests that feed on crops and the roots of plants. They grow in cereal grains like corn, wheat, oats, rye, buckwheat, and rice. They also feed on legumes like beans or peas, nuts, cotton, and wheat products like flour. They also infest grapes, apples, and pears'. **WebMD**

Yes, weevils are considered among the worst pests of our crops and foodstuff.
They do have a reputation for it.

Nowhere do I read that every single one is a pest. There are 95,000 known species around the world and they are the largest family of insects. Many of the better known species, ie those that live in closer proximity to man, are pests, but they live in all kinds of habitats. LIke many insects, they may be detrimental to the plants on which they live, but many tropical species are wood borers.



Phyllobius pomaceus. There are several similar species and they all have scales dusted with blue/green.

Apodeus coruli, commonly called the Hazel Leaf Roller as its larvae feed in a rolled up leaf.

Phyllobius pyri. The Common Leaf Weevil. Up to 7mm. It is one of the commonest weevils in the UK, found in parks and garden and woodland fringes.

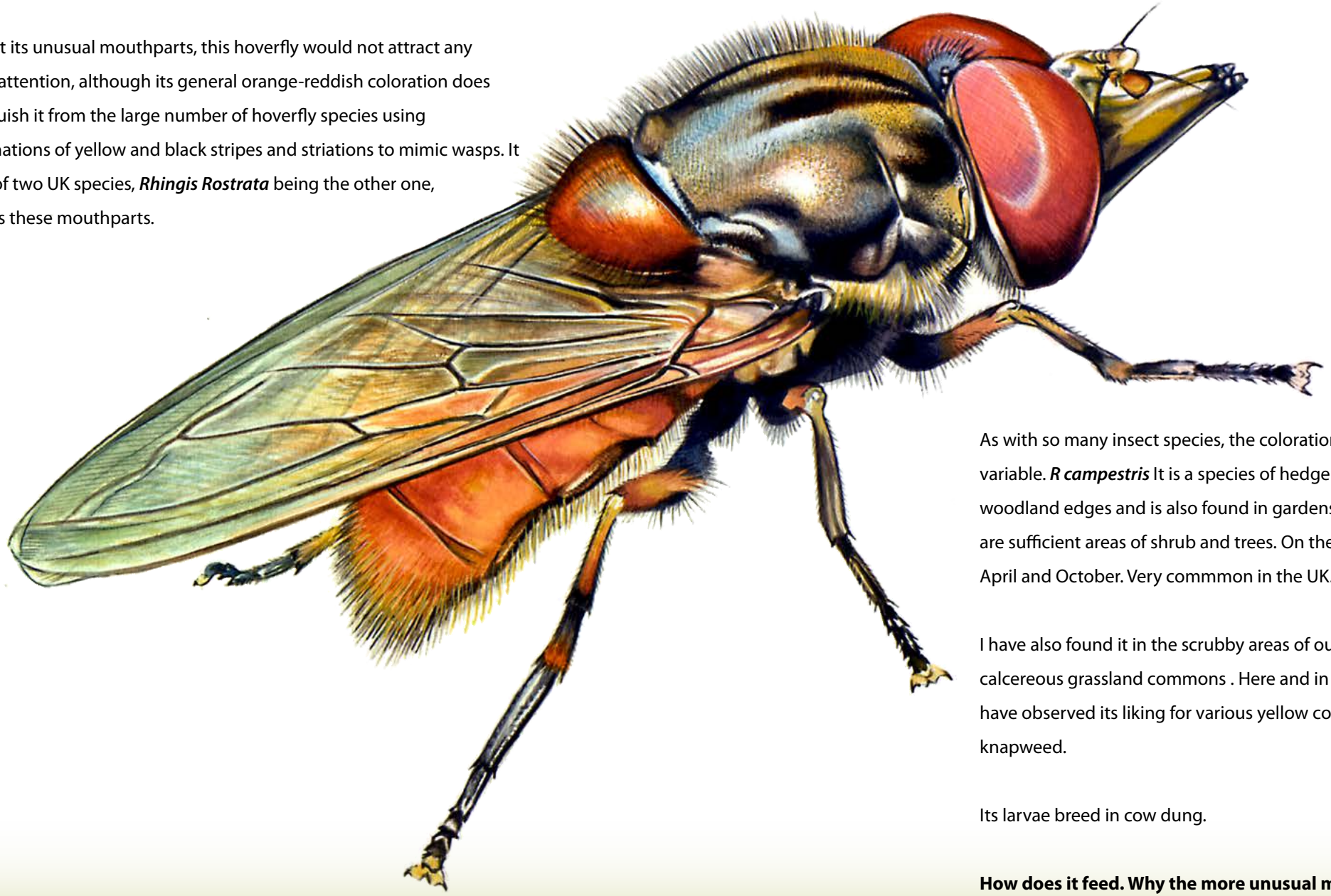
Weevils of two or three species would walk slowly up and down the windows on the outside of the conservatory late at night during the summer months, drawn to the lights inside.

This is a Vine Weevil. We have a vine growing just outside the conservatory.

Snouted Hoverfly

Rhingia campestris

Without its unusual mouthparts, this hoverfly would not attract any undue attention, although its general orange-reddish coloration does distinguish it from the large number of hoverfly species using combinations of yellow and black stripes and striations to mimic wasps. It is one of two UK species, ***Rhingis Rostrata*** being the other one, that has these mouthparts.



As with so many insect species, the coloration can be variable. ***R campestris*** It is a species of hedgerow and woodland edges and is also found in gardens where there are sufficient areas of shrub and trees. On the wing between April and October. Very commmon in the UK.

I have also found it in the scrubby areas of our local calcereous grassland commons . Here and in the garden, I have observed its liking for various yellow composites and knapweed.

Its larvae breed in cow dung.

How does it feed. Why the more unusual mouthparts?

Snouted Hoverfly

All is revealed. The snout is a protective sheath for the fly's mouthparts. Mouthparts which, unlike other hoverflies, is an elongated tube and allows this species to reach pollen other hoverflies cannot reach.

Bad press

It would be true to say that there are some species of insects that give all the others a bad name. Those that bite or sting us, those that carry diseases harmful to our bodies, those that have an association with the darkest, dirtiest corners of our urban world, those that damage our food crops or our garden flowers.

You can probably rattle off a short list off the top of your head: wasps, bees, mosquitos, midges, cockroaches, house flies, etc. There are many more. Yet, these are a tiny fraction of the number of insect species that share our world. Every species fills a vital niche within the ecosystems they inhabit. Insects are crucial to the continued existence of all life on earth, including our own.

We cannot ignore how serious insect bites, stings, infestations, plagues can be for individuals and whole communities. As a result, there are countless companies and experts available to tell us how we can rid ourselves of these 'pests'. So many in fact that should you google certain key words; WASPS, BEES, many of the first hits on the page will be about pest control. In fact, you might be amazed at how many different species of insect are considered pests. Of course it suits some people to perpetuate this, so thay can recommend products or services as a solution.

This all plays on the fears and phobias that many have about insects, perpetuating some of the myths and prejudices that surround certain species or families. There is a page on weevils in this issue that illustrates this point. 95,000 species worldwide. Google 'weevil' and the first pages tell you that they are pests, all of them. There is no distinction from one species to the next.

This insect with the crazy eyes is a Splayed Deerfly. A species of Horse Fly. Like all horse flies it has a taste for mamalian blood, including human, should we be close by. However, we are all more likely to have experienced its much more common relative the Cleg-fly, which lives in closer proximity to us and will not hesitate to bite.

Common Wasp. Apex predator in the insect world and an important pollinator. When going about their daily lives, they are no bother at all. Their love of sweet, sugary things brings them into closer contact with us, but if you can keep your calm, they will not bother you.

Insect Connect

Not to demote the importance of conserving the world's great apes, pandas or rhinos, but it's taken rather longer to promote the critical importance of invertebrates to the planetary ecosystems that support all life on earth, including our own and begin to get this message over to people.

Many however, still do not make that connection. These pages are the first in a series that looks at issues and topics that might help us forge a stronger relationship with the insects that share our world.

One of the species of Big-headed Wasps common in UK gardens, but being solitary, maybe not always seen. For a wasp it has an attractive face with big eyes. It does not sting humans and raises its young in rotting wood and timbers.

Bad press

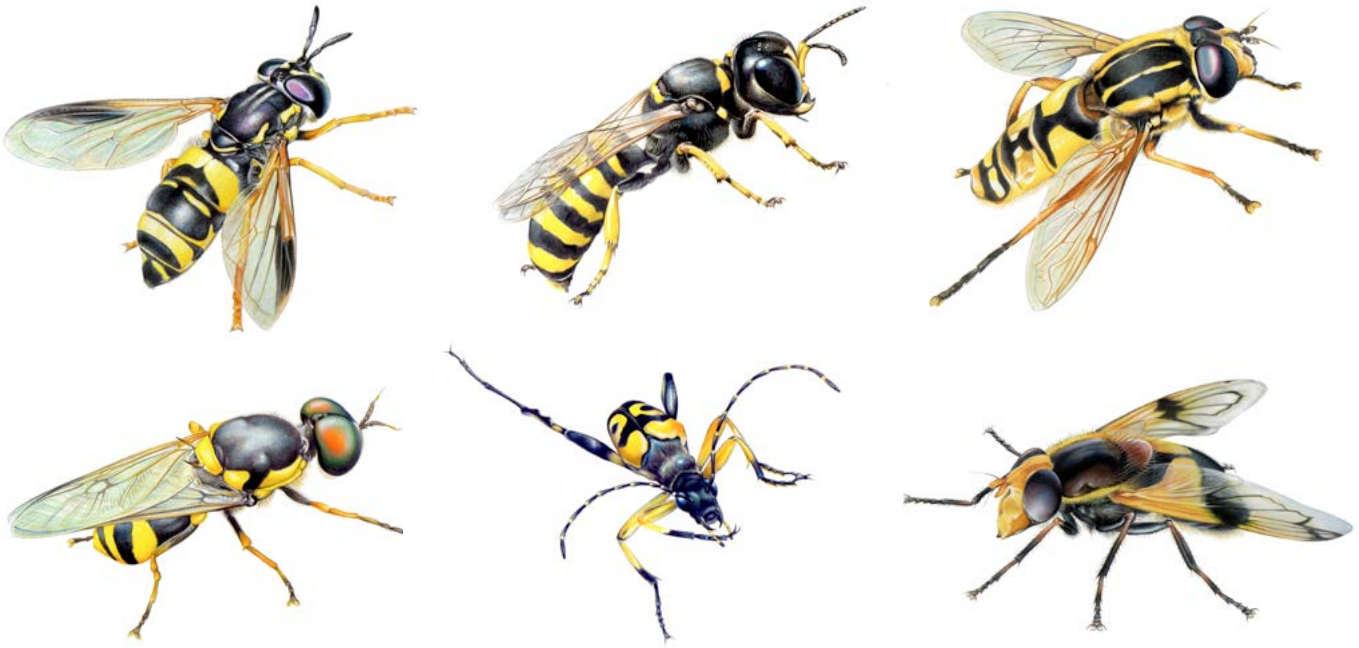
When it comes to children, some of these fears of insects are there at an early age. This may well come from the parents, passing down their own fears and experiences. Nothing wrong in taking care of your children and warning them about bee stings or wasp stings, because, as we know, for some, such things can be life threatening and even fatal.

However, many chidren have a deep fascination for insects, a curiosity about bugs! Given the opportunity to interact with insects in any way, they show a real enthusiasm. If only we could bottle that enthusiasm and use it to conserve the insect world. Of course as children grow, other things take priority and the interest in insects wains, dissappears altogether.

So we have to work hard to create and recreate these connections between people and insects. We know how critical insects are to a healthy, functional planet and to our own health and ultimately, survival. This is a big concept for many people to grasp, so how do we promote the value of insects, how do we elevate their standing among all the other kinds of animals that generally receive more attention.

We have to magnify their world as much as we can and take people into it.
We need to emphasise their incredible diversity of shape, size, form, colour
We promote opportunities to see them. They are just outside our own doors. Very little, if no travel at all, is needed to find an amazing array of species.
Improved knowledge about insects removes some of the fears and phobias that exist around them.
A really basic comprehension that every flying, buzzing, yellow and black striped insect is not a wasp intent on stinging.

Which one is the wasp?



Insect Connect

Over the course of a few hours at a Stroud Festival of Nature event, around 60 children happily held this dead hornet. Many with a real fascination. A few were relucatnt, but did so with a little gentle persuasion. A few were too frightened to hold it, but looked on as siblings or friends held the insect.

Only one adult wanted to hold it. Among some, there was real visible repulsion and fear. Some tried to stop their children handling it.

INSECT NATION

Centurion
(Twin-spot)

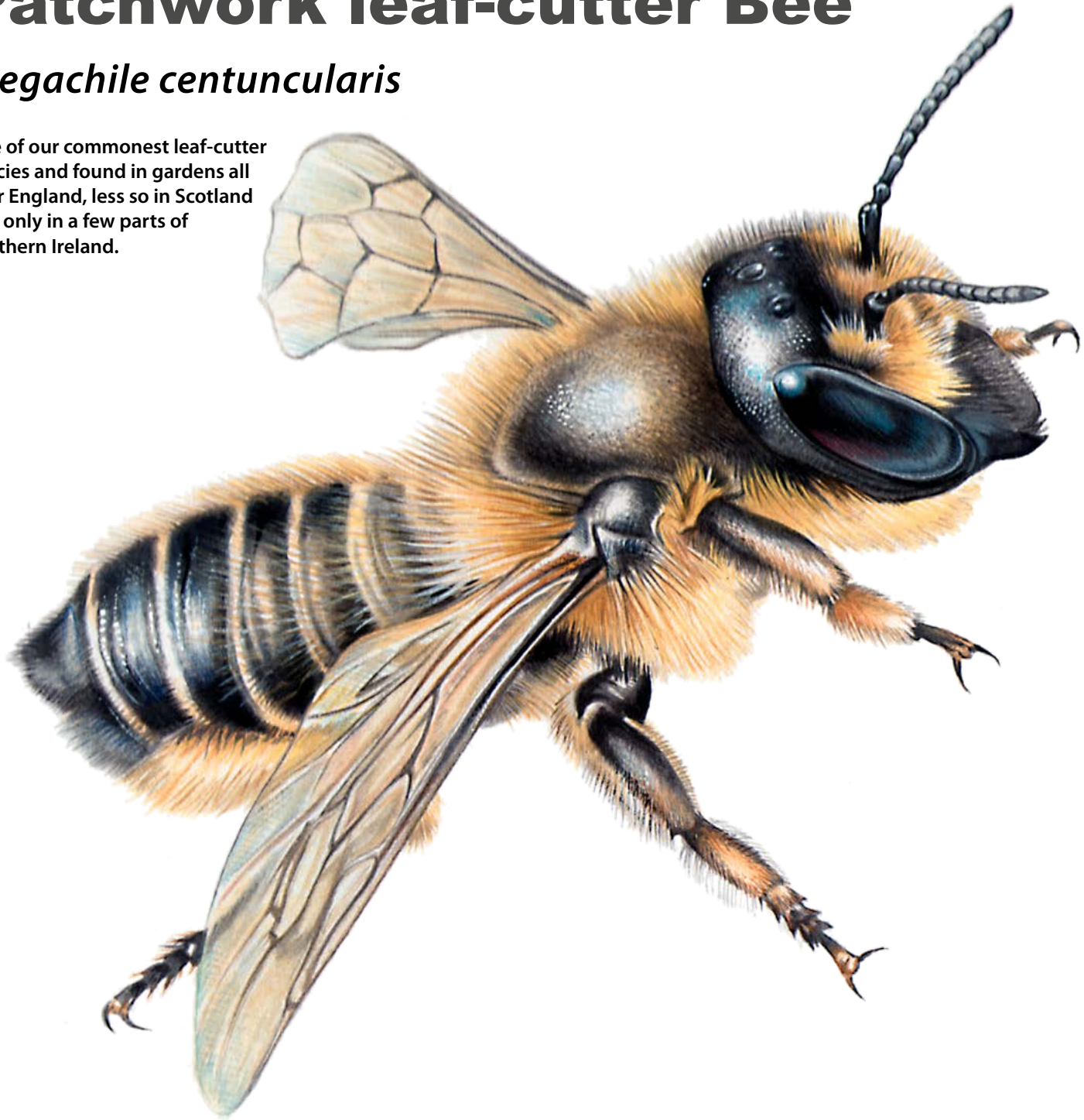
Mason and potter
Assassin and robber
Admiral and footman
Skipper and boatman
Digger and miner
Nomad and rover
Horse and soldier
Centurion and legionnaire
Cutter and forester
Hebrew and quaker
Damsel and dragon
Emperor and cardinal
Mountain and chalk-hill
Meadow and wood
Marsh and heath
Copper and brass
Malachite and marble
Ermine and lace

Each has a place
In the insect nation

Patchwork leaf-cutter Bee

Megachile centuncularis

One of our commonest leaf-cutter species and found in gardens all over England, less so in Scotland and only in a few parts of Northern Ireland.



Cutter

Left and below is the female. Left shows the bright orange pollen brush on the underside of the abdomen, a distinguishing feature. Below shows the sharp jaws used to cut out semi-circular sections of leaf.

Below: Evidence of the work of Leafcutter bees.

These are carried in flight beneath the abdomen and used to build cells for their young to develop in. The leaves are chewed into a pulp and mixed with saliva to create the cell walls in a hole in dead wood, plant stems, man made buidlings and structures, including bee homes.

Cutter

Leafcutter feeding on Inula-hookeri.
The abdomen is thin and slightly flattened and often held at an upwards angle.

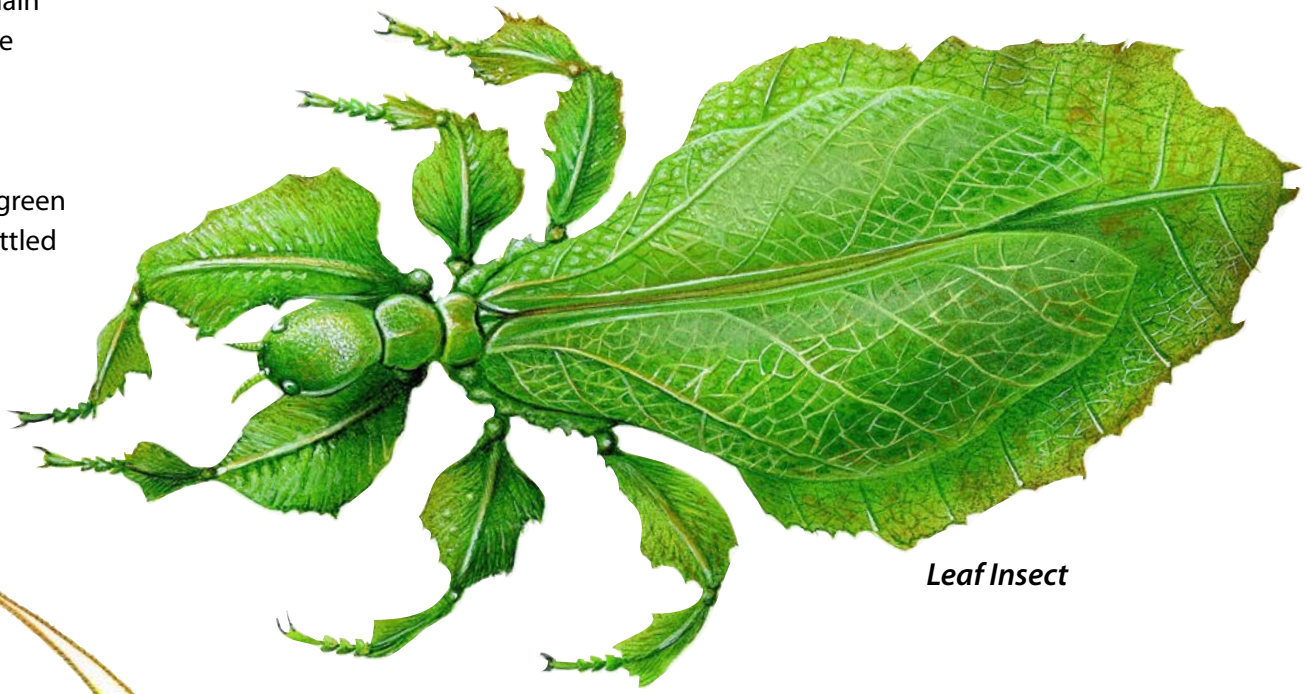
Click on the photo to see a short video of a Leafcutter Bee feeding.

Leaves

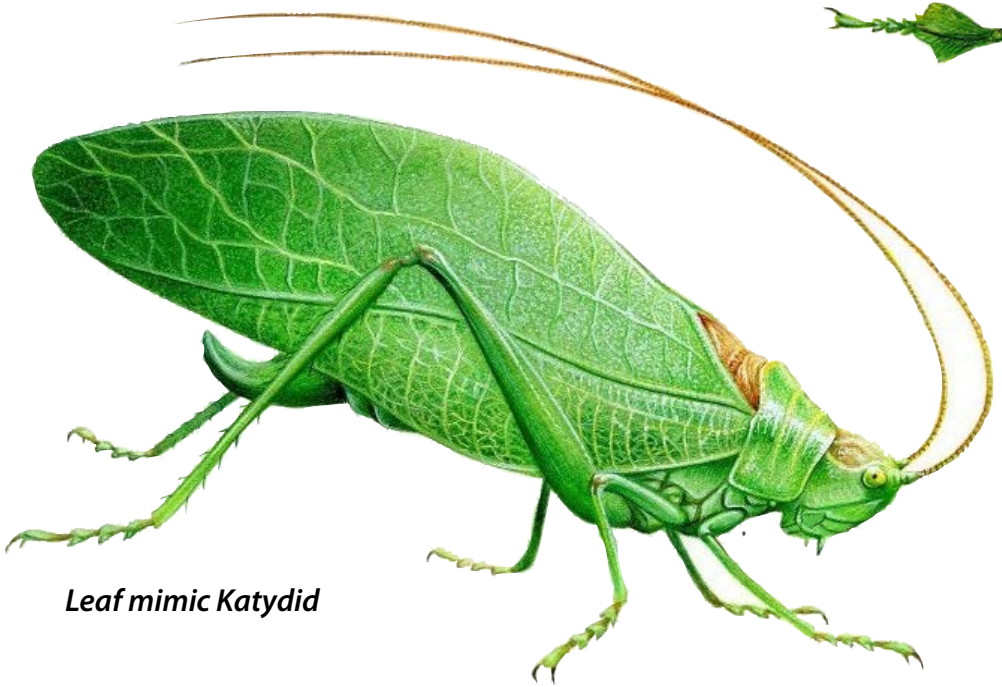
Mimic

There are many species of insect that mimic leaves in order to remain less visible to predators. Two particular families that exhibit this are Tettigonidae (katydids) and Phyllidae (leaf insects).

A member of each of these familes is shown here.
These are both species of the tropics. These species are mimicing green laeves. There are species that mimic decaying leaves and have mottled patterning with reds and browns.



Leaf Insect



Leaf mimic Katydid

Here in the UK and related to the katydid, we have the Great Green Bush Cricket. It does not mimic leaves to the same degree, but the wings of the adults are very leaf-like. It is still a very difficult species to spot among any green foliage.

Great Green Bush Cricket

Click on the photo to see a short video of a male Great Green Bush Cricket

Leaves

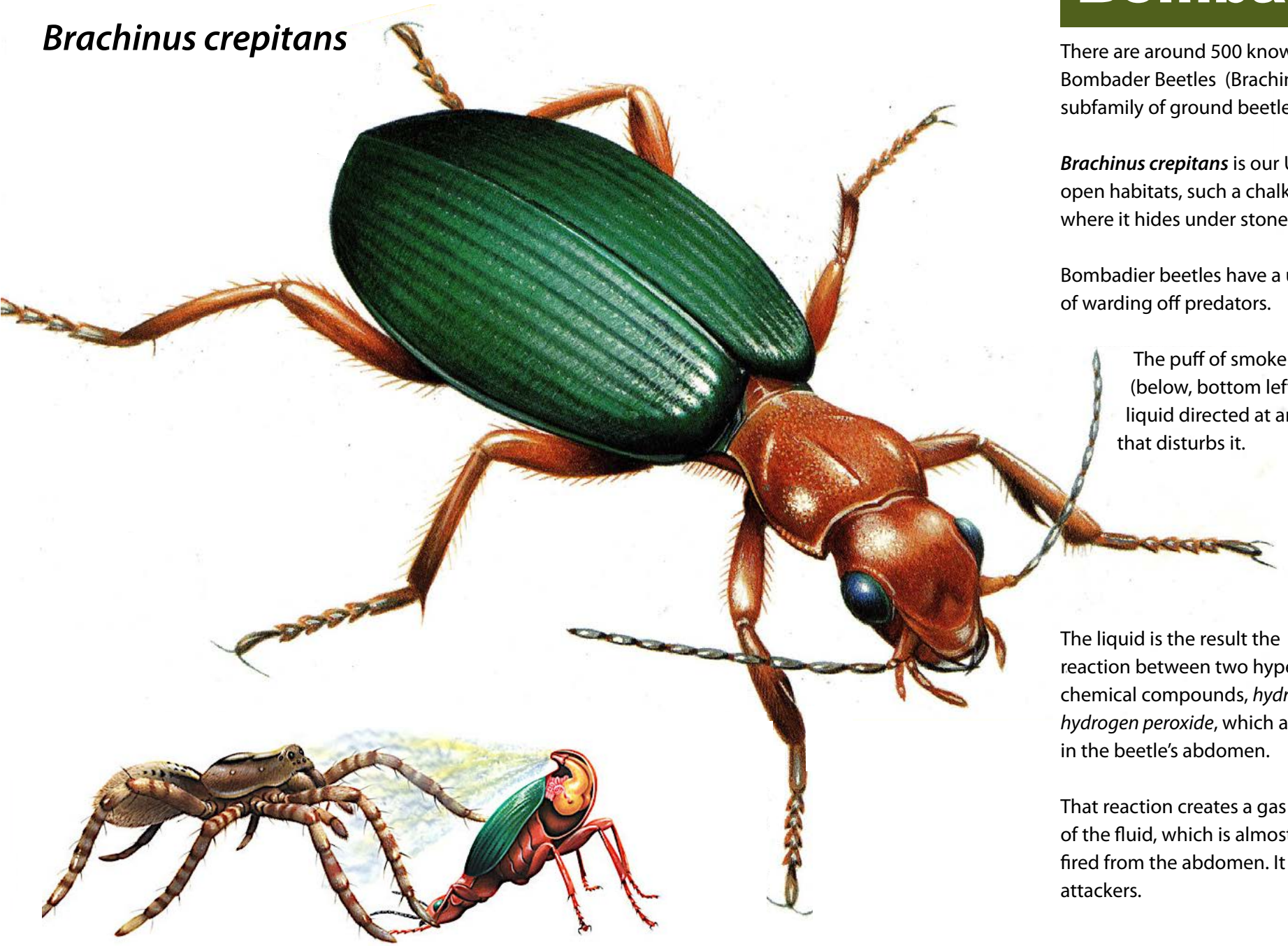
Mimic

There is one species of insect here in the UK, which until recently, I had not really thought about as leaf mimic. Maybe because I usually see it feeding on bright flowers. The Brimstone butterfly.

On this day I spotted it hanging from a hazel in the hedgerow and the resemblance to a leaf was obvious to see.

Bombadier Beetle

Brachinus crepitans



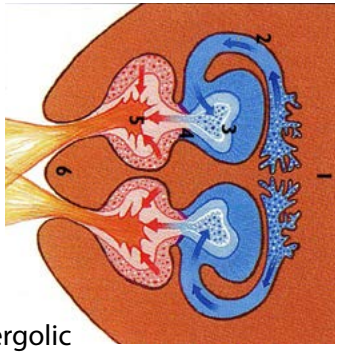
Bombadier

There are around 500 known species of Bombader Beetles (Brachininae) worldwide, a subfamily of ground beetles.

Brachinus crepitans is our UK species, found in dry, open habitats, such a chalk and limestone grassland, where it hides under stones and in dark crevices.

Bombadier beetles have a unique and explosive way of warding off predators.

The puff of smoke from the tip of its abdomen (below, bottom left) is a burning, noxious liquid directed at any creature, large or small, that disturbs it.



The liquid is the result the reaction between two hypergolic chemical compounds, *hydroquinone* and *hydrogen peroxide*, which are stored in two reservoirs in the beetle's abdomen.

That reaction creates a gas that powers the ejection of the fluid, which is almost a boiling point as it is fired from the abdomen. It can be fatal to some insect attackers.

Assorted larvae??

I have to admit it, I struggle to identify the larvae of a number of butterflies and moths. I know some, those with which I come into regular contact with, or those that have very distinguishing features. Then there are the larvae of the sawfly family which can also make things more difficult. So a quiz for anyone out there that wants to take part. I know some of these and those that I don't, I have not yet tried to identify. Can you help?

If you would like to do so and want to provide me with some answers:

https://www.linkedin.com/in/wildabout/ ***https://twitter.com/wildaround*** ***steve@footprintidesign.co.uk***

End of the year show

The next issue of *Do You Have The Bug* will be in 2024. I am leaving you with some of the last images of insects I will be taking this year. It' s mid- November and on the sunniest days, those few insect species that are still on the wing are sipping, licking, crunching their way through whatever food they can find. Nectar is still available from some plants, but berries are a good source of sustenance before winter. Some species will be eating their last meals of all, others before they seek hibernation.

Very small house fly species on Rose hip

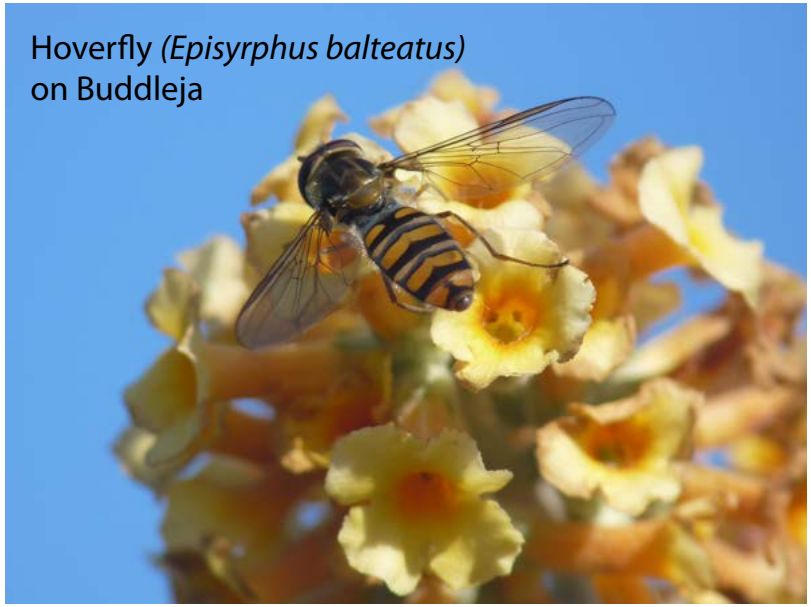
Red Admiral on Buddeja

House-flies on Pheasant Berry

End of the year show

The hornet (top left) has come to the end of its days, lifeless, its right front foot was the only thing preventing it falling from the Hazel leaf.
Bottom left: One of two species of hoverfly on the buddleja. The other being the Drone Fly.
One week ago the Pheasant Berry was crowded with common wasps. Today(11 Nov) there is just one.

Hornet on Hazel



Hoverfly *(Episyrphus balteatus)*
on Buddleja

Wasp on
Pheasant Berry

About

Do you have the bug was conceived and is written and illustrated by Steve Roberts.
Very much a personal ambition for a long time.

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Unless stated otherwise, all photography is original to the magazine.

All illustrations are original by Steve. Most are produced specifically for this magazine. Others have been published previously.

Shoud you wish to use any of the new illustrations, please get in touch.

Founding director of Stroud Nature and the Stroud Festival of Nature, after 15 years, Steve has recently ended his role and the festival.
But the partnership and collaborative associations created through the festival is still ongoing as Steve continues working with other local wildlife organisations, in particular Stroud Valleys Project.

One project in particular is having great success among communities in the Stroud Valleys, Garden Guardians. There is an introductory page on the web site with links to more infomation on the Stroud Valleys Project web site.

Other projects are in the pipeline.

Caddis Fly