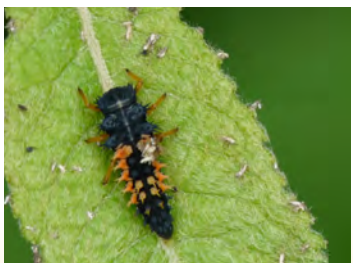


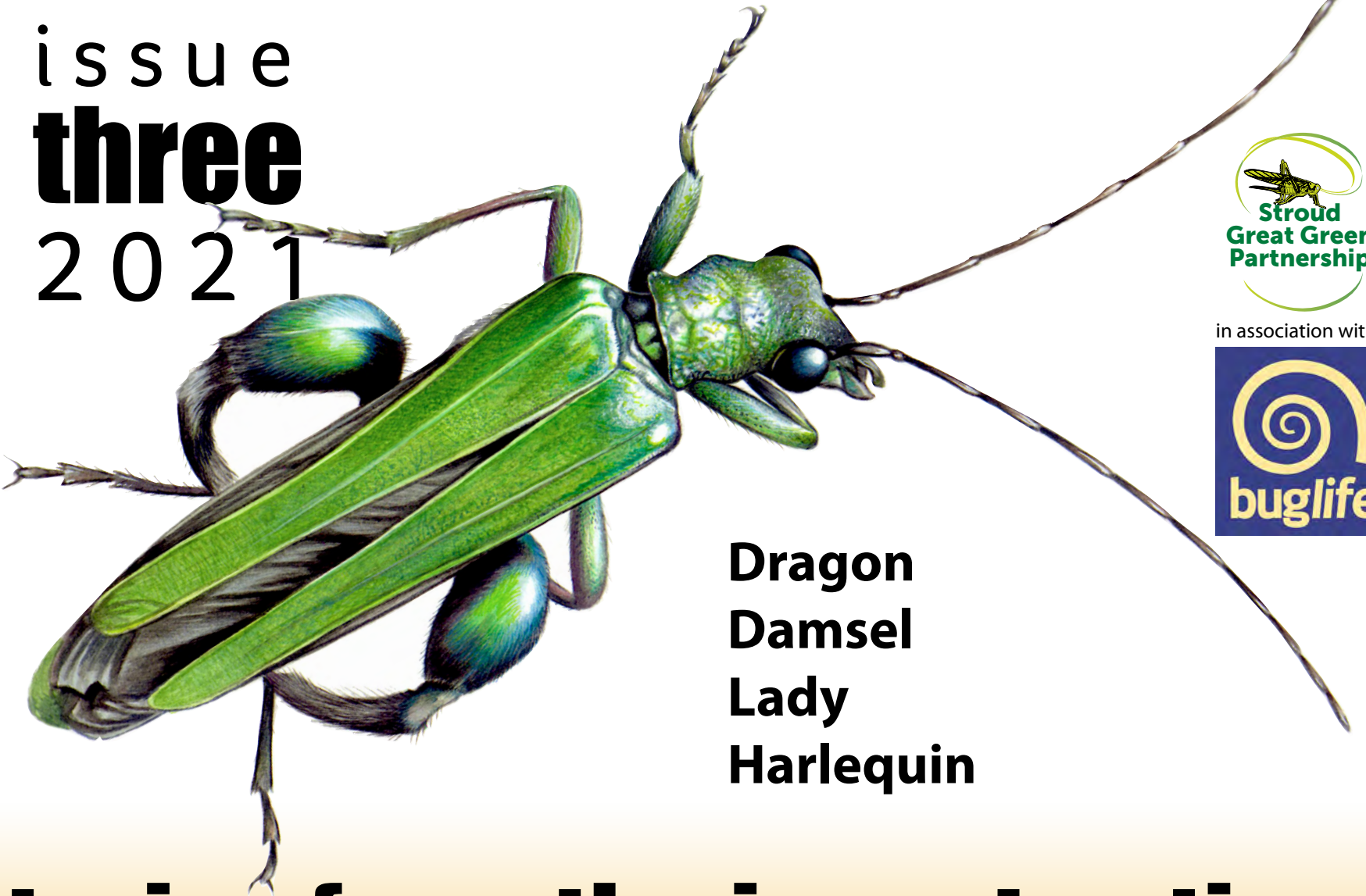
# Do you have **the bug** ?



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



issue  
**three**  
2021



**Dragon  
Damsel  
Lady  
Harlequin**



in association with



# **...for stories from the insect nation.**

# Do you have the bug?

**Do you like insects**

**Do you study them for a living**

**Is it an amateur interest**

**Do you find them fascinating**

**Are you just curious**



**This is the third issue of a new digital magazine, for those who have the bug and those who are just beginning to catch the bug.**

**We want as wide an audience as possible to enjoy its pages. We want people to share it with others.**

**We welcome your feedback.**

For Issue three, there is a new logo on the front page. We are really pleased that the magazine will henceforth be produced in association with Buglife.



Buglife is the only organisation in Europe devoted to the conservation of all invertebrates. We hope we can both work together to bring you more stories from the insect nation and encourage you in their conservation. Invertebrates are the glue that hold many ecosystems and food chains together.

**Lose them and only disaster will follow.**

The magazine is UK focused. It has been inspired by observations and studies of insects in and around the town of Stroud in the Gloucestershire Cotswolds. This does not restrict us in what we want to include in the future and we are looking for contributions from all kinds of bug enthusiasts, expert, amateur, young or old. Send us your stories, images, photographic or illustrative. We ask that any copy is engaging and inclusive. All contributions will be credited.

## Contributions to this issue

**Head of a team of contractors at a town park, Mike McCrae is also an extremely knowledgeable amateur entomologist, with a particular interest in Lepidoptera. He recounts his insect encounters in the Philippines.**

**The South-east Asian theme continues with some more images from Stroud Nature Director Joel Roberts - 'Our man in Thailand'**

The magazine has been put together by Stroud Nature, a member of the Stroud Great Green Partnership. Almost all of the images, illustrative and photographic, originate from the partnership.



The partnership has evolved out of the Stroud Nature Forum established to develop and plan the annual Stroud Festival of Nature. This forum of local and regional wildlife and environmental organisations are now utilising their considerable knowledge and skills to contribute to this and other SGGP resources, providing information and images.

Illustration is a key component of the magazine and is all original, much produced specifically for the magazine. We hope you enjoy exploring its pages and let us know what you think.



# Contents

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## Part three: Contributions

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- [23. Caterpillars](#)
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## It's interactive

You can go straight to a page by clicking on the page number in the contents list.

Clicking on buttons and images will take you to other information, facts and images, including full page blow-ups of some of the illustrations used in the magazine.

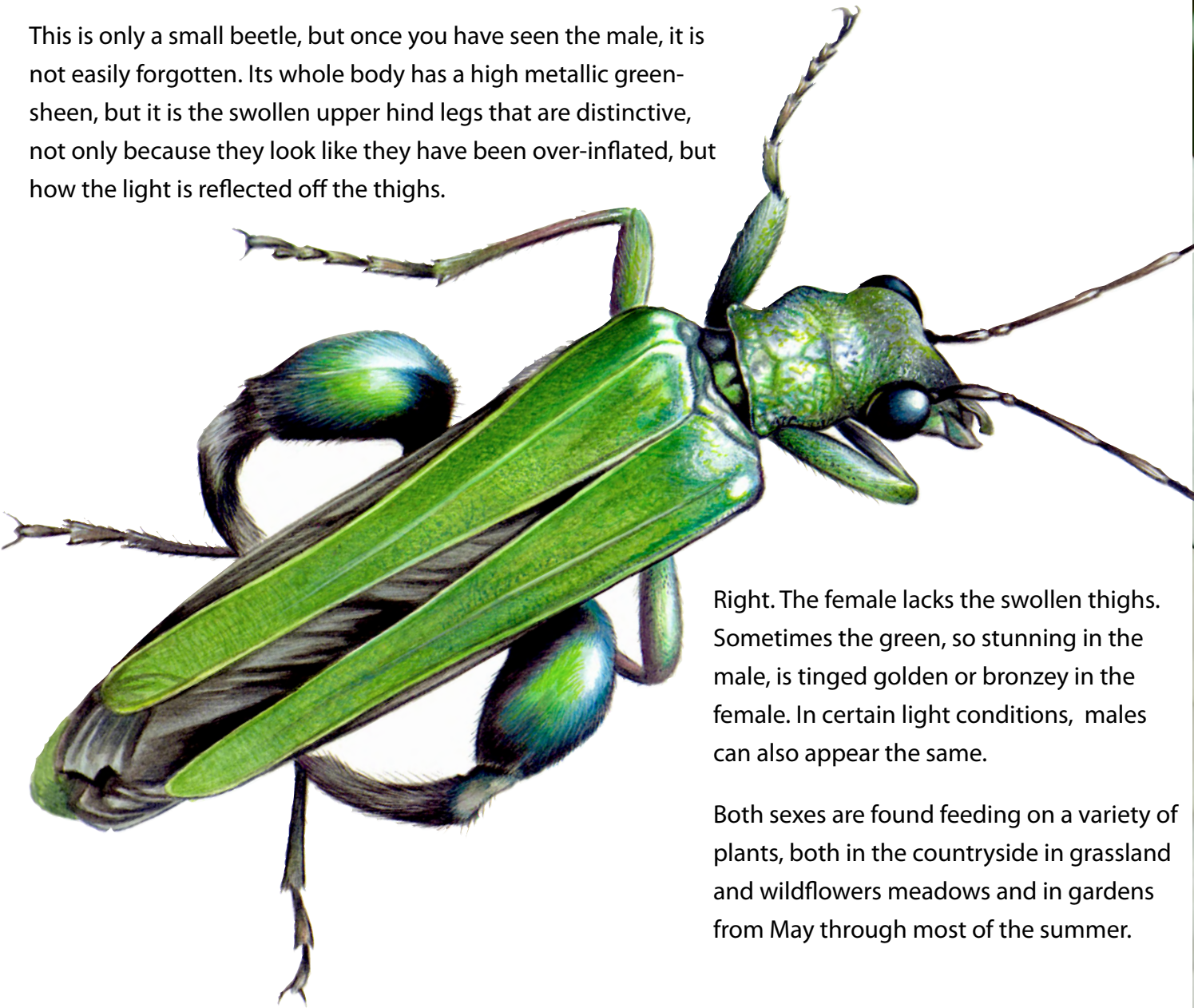
Try the link below to check out this Banded Demoiselle in all its detail.



# Swollen-thighed Beetle

## *Oedemera nobilis*

This is only a small beetle, but once you have seen the male, it is not easily forgotten. Its whole body has a high metallic green-sheen, but it is the swollen upper hind legs that are distinctive, not only because they look like they have been over-inflated, but how the light is reflected off the thighs.



Right. The female lacks the swollen thighs. Sometimes the green, so stunning in the male, is tinged golden or bronzey in the female. In certain light conditions, males can also appear the same.

Both sexes are found feeding on a variety of plants, both in the countryside in grassland and wildflowers meadows and in gardens from May through most of the summer.

## Front cover





# Sounds of late summer

## Dark Bush-cricket

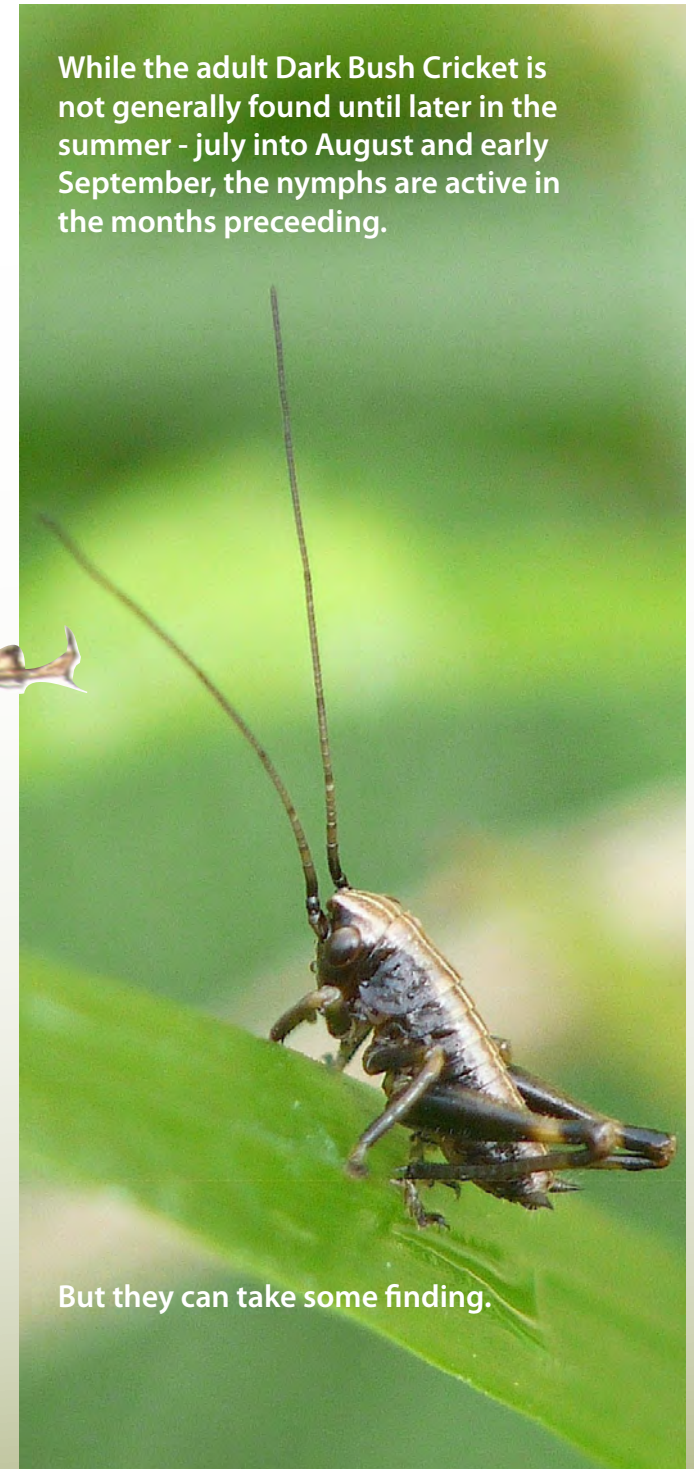
Although it is called the Dark bush-cricket and can be dark brown and almost black, this species can be a much paler, light brown and even chestnut. Then there are variations between the males and female.

It is a common species in the UK, found in rough, grassy vegetation, in hedgerows, scrub and gardens.

You are most likely to find one in the second half of July, all of August and into September if the weather is mild. This is the time you may hear its song. A single high-pitched chirp repeated irregularly. The Cricket may sing well into the night.



While the adult Dark Bush Cricket is not generally found until later in the summer - July into August and early September, the nymphs are active in the months preceding.



But they can take some finding.



As well as showing the variation in colour and pattern of the Dark Bush Cricket, this image shows the sickle-shaped ovipositor of the female., which is generally lighter in colour than the males (but not always). Whatever the colour, the dark broad stripe behind the eye, continuing along the side of the pronotum is constant.

The wings are vestigial in the female



There have been good populations of Dark Bush-cricket on Rodborough Common above Stroud in the Cotswolds. They prefer the transitional areas of scrub between the grassland and woodland. Here Wild Marjoram and Greater Knapweed grow among the taller grasses and saplings.





# Visitors

The climate is such in the UK, that when the weather is really good, we like to make the most of it. But while we crave a good summer, we can struggle on the those days when the weather is hot, sticky and humid. When these conditions continue through the evening and into nighttime. we open our doors and windows for some relief.

Enter the insects. Some are drawn to the lights, others to warm, dark places in the shadows. A number will be moths, but it can be surprising how many different kinds of insects are drawn into our homes.

## Willow Beauty

*This Willow Beauty entered the Conservatory, found itself a spot on the door frame and remained there, motionless for hours.*



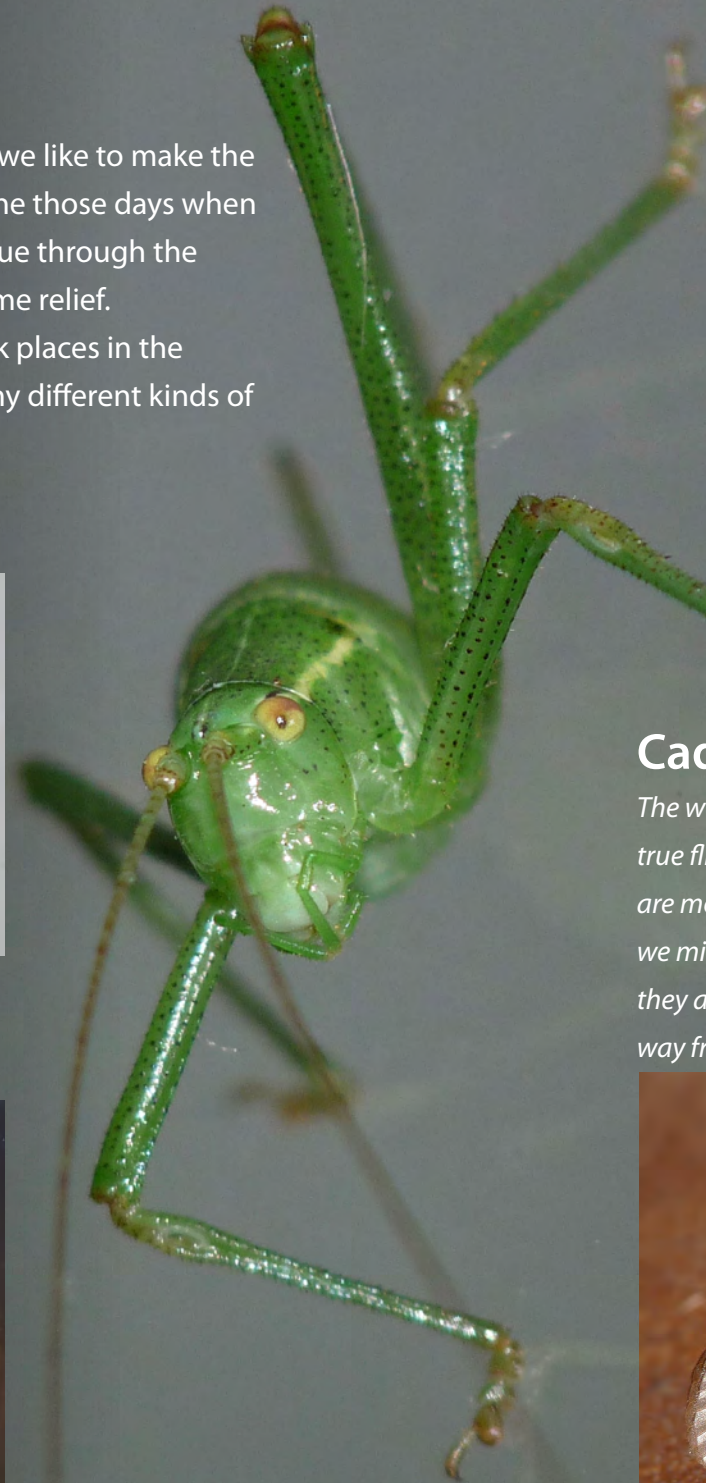
## Lesser Yellow Underwing

*In contrast, this Broad-bordered Lesser Yellow Underwing fluttered about frantically for hours, rarely stopping.*



## Speckled bush- Cricket

*While The Dark Bush-cricket (previous page), can be found in gardens, it is unlikely to enter your home. Not so the Speckled Bush-cricket. On later summer evenings, should you leave your doors and windows open and the lights on, this cricket will often turn up somewhere inside your home.*



## Caddis-fly

*The word 'fly' is often used for species which are not true flies. Caddis flies are one such example. They are more moth like than anything else and while we might associate them with water, like moths they are drawn to lighted windows, often some way from water.*





# Visitors

Then of course, there are the flies. Those irritating house flies, greenbottles, flesh flies - they fly around buzzing loudly in stereo behind our heads. they land on the furniture, they wizz around the ceiling light bulb. With them comes a myriad of tiny flies - midges, gnats and mosquitos. They are probably not the most popular insects around. But look again at some of these flies.

## Flutter Fly *Palloptera muliebris*

The fly (right) is a species of Picture-winged Fly, one of 13 UK species known as flutter flies. They wave their wings backwards and forwards every few seconds as a form of signalling.

## Long-legged Fly *Dolichopididae*

Appropriately named, this family of flies live mainly in grassland areas and in various shrubbery in a variety of habitats, including gardens.



## Crane-fly

Many people will be familiar with the Crane-fly, probably the Common Crane-fly (*Tipula paludosa*). Once in the house, it flutters around noisely with weak flight and long, gangly legs up and down the wall.



There are other species of Crane-fly that seem to like it indoors. Above are the female (left) and the male (right) Spotted Crane-fly.

It is not always easy to capture and set these insects free. Some may find their way out again. If they enter later in the year and are looking to over-winter in the warmth, they may find a safe place where they remain undisturbed. But too often they do not survive, starved of their usual food sources they may last a couple of days at the most.

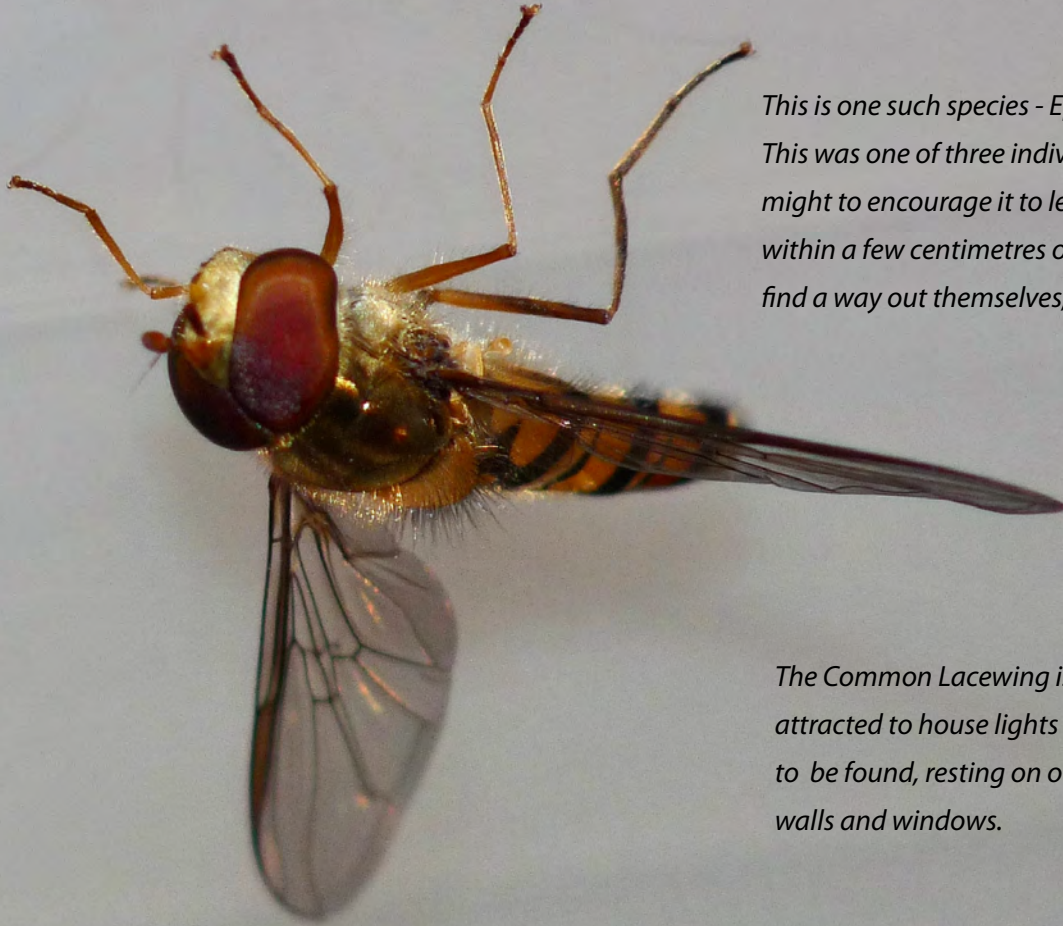


Crane-fly *Tipula maxima*



# Visitors

There is one group of flies that it is difficult to observe without feeling some sense of regret. Regret because try as you might, you cannot persuade them to leave and it is high impossible to catch them. They always gravitate to the ceiling or the roof of the conservatory where they flit around, upside down, beating a rhythm on the roof as their feet come into contact with it. You might open a window or door but they are fixated with the roof. They are hoverflies. Not all hoverflies, but a small number of species.



*This is one such species - Episyrphus balteatus. This was one of three individuals that, try as we might to encourage it to leave, would not move within a few centimetres of the roof. Unless they find a way out themselves, their lives end on the floor.*

*The Common Lacewing is also attracted to house lights and liable to be found, resting on our walls and windows.*



## Giant Lacewing

*Skulking in a gloomy corner of the lounge, it took a flash to capture the beautiful patterned venation on the wings of this Giant Lacewing.*

*It's not really a giant, but it is larger than the Common Lacewing most of us are familiar with.*





# INSECT NATION



Mason and potter  
Assassin and Robber  
Admiral and footman  
Skipper and boatman  
Digger and miner  
Nomad and Rover  
Horse and soldier  
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

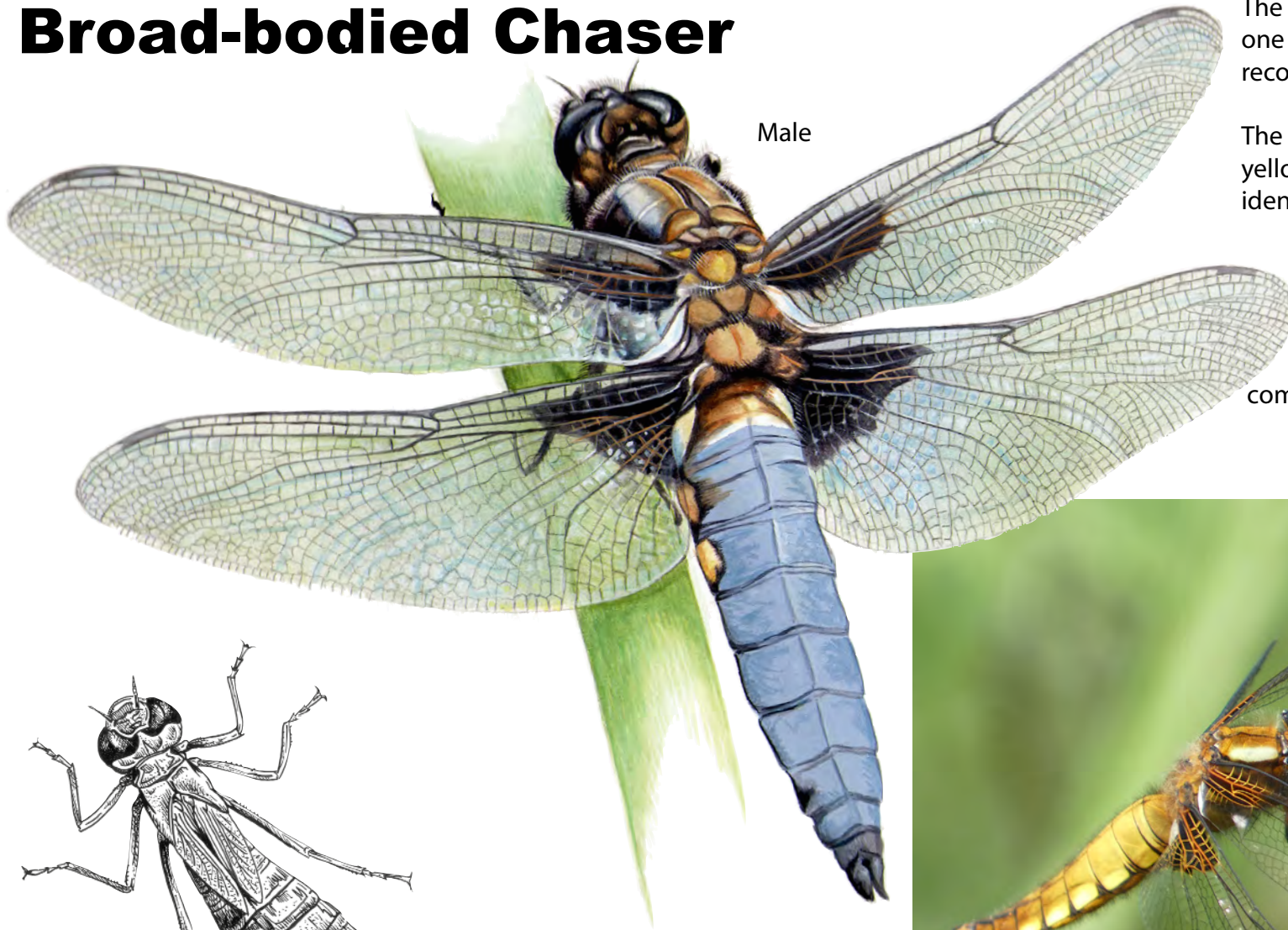
Marble



# INSECT NATION

## The Dragon

### Broad-bodied Chaser

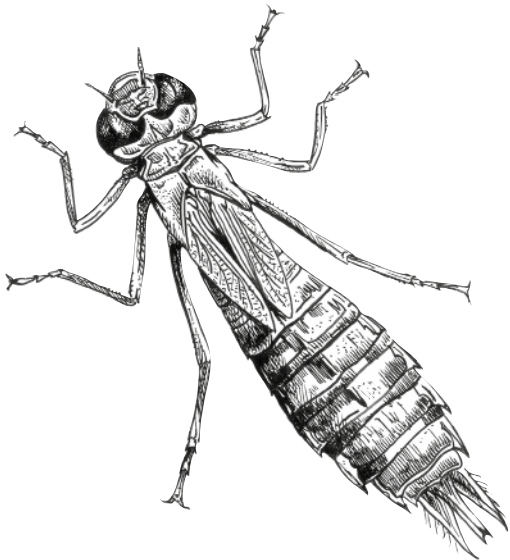


Male

The Broad-bodied Chaser, *Libellula depressa*, is one of the UK's commonest and most easily recognised species of dragonfly.

The flattened abdomen, powder-blue in the male, yellowish-brown in the female, enable identification.

It's ability to find new ponds ( it favours still water), within hours of their creation and set up a territory, also adds to its familiarity. This sometimes brings it into community green spaces and gardens.



The nymph of the Broad-bodied chaser is also easily identifiable by its broad, flattened abdomen.



Female



Another species of Chaser - the Four-spot Chaser.

The female Broad-bodied Chaser might be confused





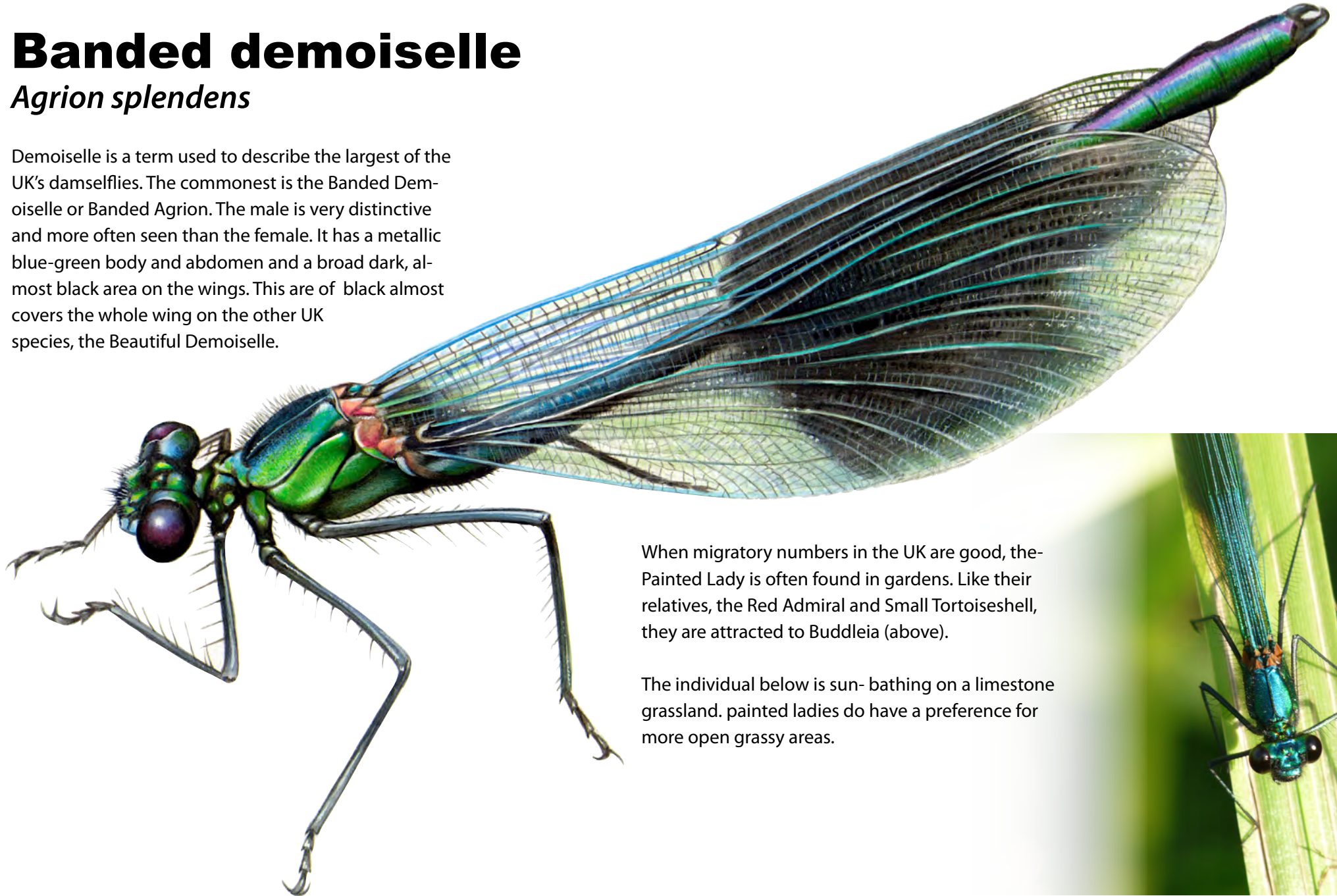
# INSECT NATION

## The Damsel

### Banded demoiselle

*Agrion splendens*

Demoiselle is a term used to describe the largest of the UK's damselflies. The commonest is the Banded Demoiselle or Banded Agrion. The male is very distinctive and more often seen than the female. It has a metallic blue-green body and abdomen and a broad dark, almost black area on the wings. This area of black almost covers the whole wing on the other UK species, the Beautiful Demoiselle.



When migratory numbers in the UK are good, the Painted Lady is often found in gardens. Like their relatives, the Red Admiral and Small Tortoiseshell, they are attracted to Buddleia (above).

The individual below is sun-bathing on a limestone grassland. Painted ladies do have a preference for more open grassy areas.





# INSECT NATION

## The Damsel



When migratory numbers in the UK are good, the Painted Lady is often found in gardens. Like their relatives, the Red Admiral and Small Tortoiseshell, they are attracted to Buddleia (above).

The individual below is sun-bathing on a limestone grassland. Painted ladies do have a preference for more open grassy areas.





# INSECT NATION

## Painted Lady



This is one species where the underside of the wings are as beautiful as the upper

The Painted Lady is a migrant visitor to the UK.

Each year, it leaves the desert fringes of North Africa, the Middle East, and Central Asia and spreads northwards, recolonising mainland Europe. Its numbers in Britain and Ireland do vary, year on year and this may be dependant on weather.

Warmer summers as a result of climate change are likely to result in consistently higher populations.

Wing span 50-56mm

## The Lady



When migratory numbers in the UK are good, the Painted Lady is often found in gardens. Like their relatives, the Red Admiral and Small Tortoiseshell, they are attracted to Buddleia (above).

The individual below is sun-bathing on a limestone grassland. painted ladies do have a preference for more open grassy areas.





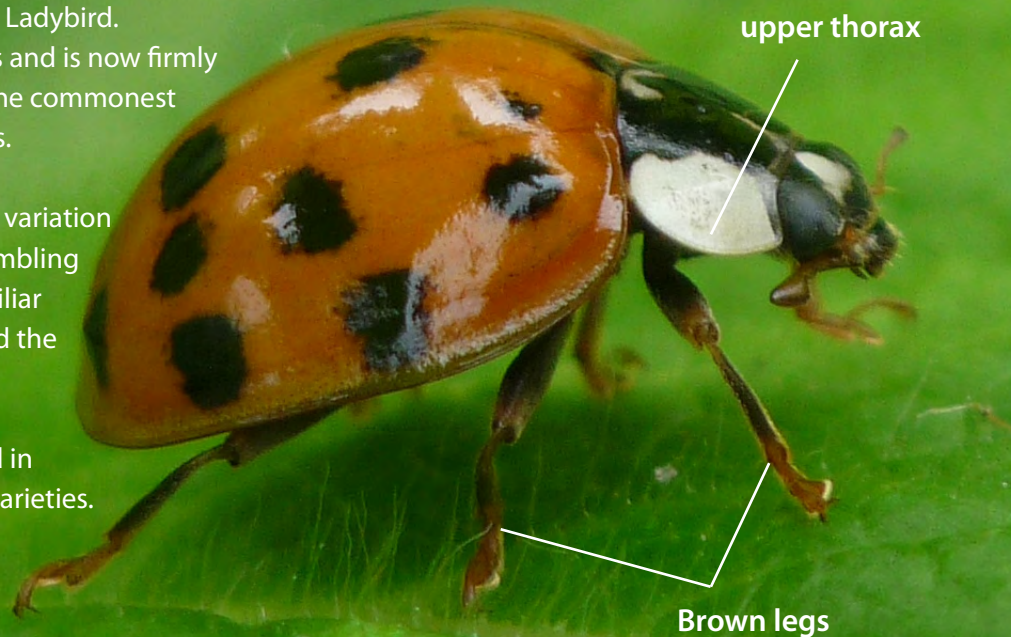
# INSECT NATION

## Harlequin Ladybird

This is an invader. A Harlequin Ladybird. It came to the UK in the 2000's and is now firmly established, having become the commonest ladybird species in many areas.

This is just one colour/pattern variation of the Harlequin, closely resembling our more familiar or once familiar species, such as the 7-spot and the 10-spot.

The Harlequin has been found in over 100 different patterned varieties.



Above: Harlequin Ladybird in a different guise

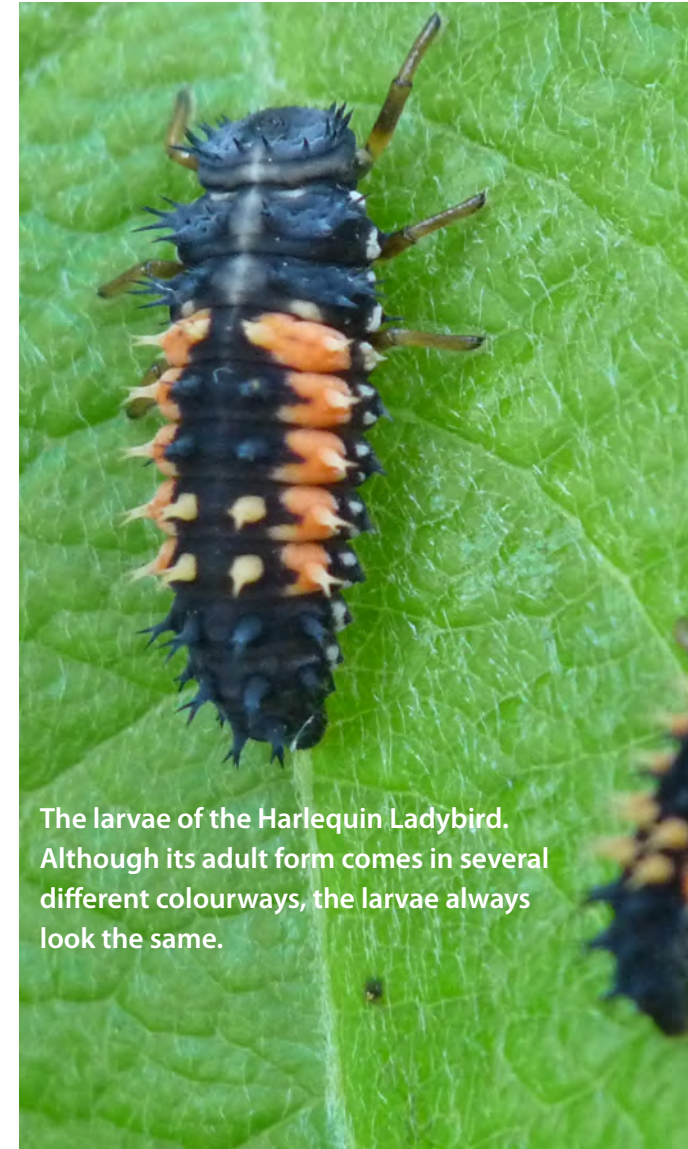


And another

## The Harlequin

*'A humorous character in plays at the theatre, especially in the past, who wears brightly coloured clothes with a diamond pattern'*

*Cambridge Dictionary*



The larvae of the Harlequin Ladybird. Although its adult form comes in several different colourways, the larvae always look the same.



# Philippines

**Mike McCrae is Head supervisor at Stratford Park, Stroud, where in addition to his normal duties, he keeps his eye on the park's wildlife and does his utmost to conserve it. Some of that commitment comes from a lifelong interest in moths and butterflies. He is a genuine amateur Lepidopterist with a great knowledge of UK species.**

**Here he recounts a visit to the Philippines to search for some more exotic species.**

As a Lepidopterist, the biggest ambition on my bucket list was to visit a rainforest or jungle to take in the huge diversity of insect life. Between 2007 and 2009 I was fortunate to make three trips to the Philippines, the first of these in February 2007, which is the country's dry season.

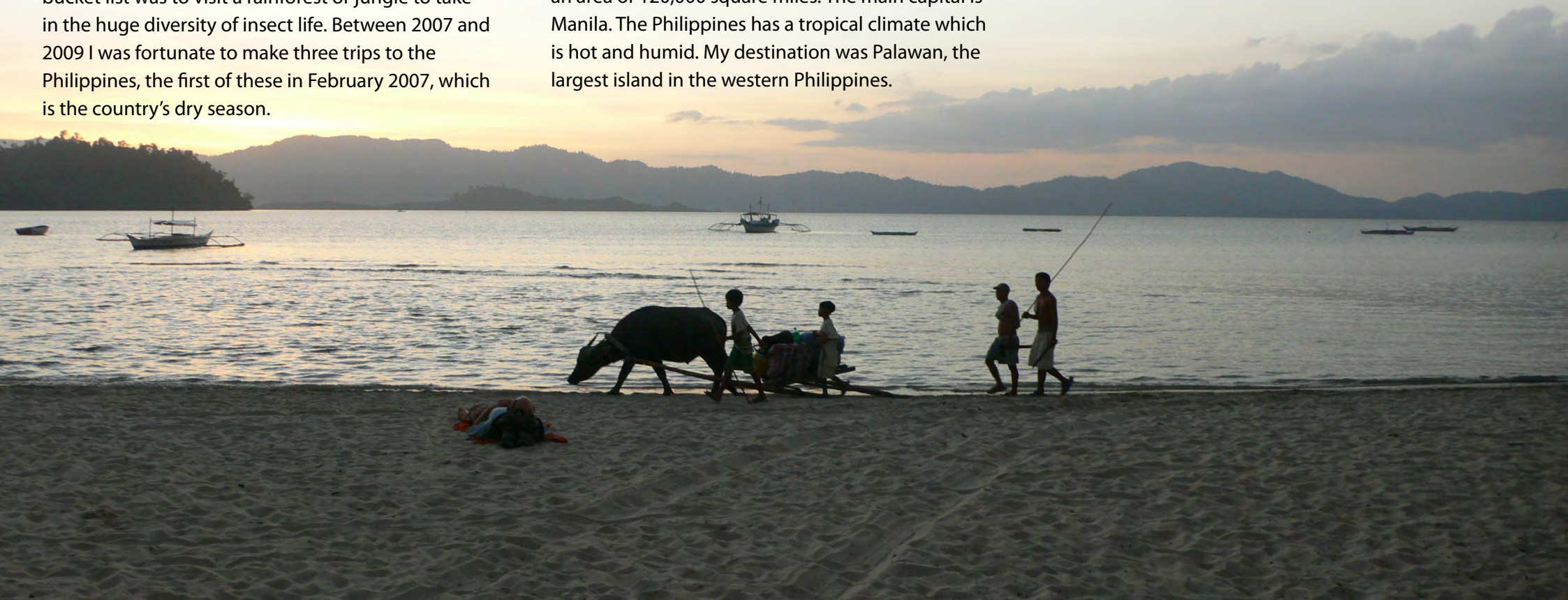
My introduction to this country was through an entomologist friend who had moved to the Philippines to set up an eco-tourism business, and who offered a more 'wild' adventure off the main tourist routes. This would mean driving across rough and precipitous terrain, hopping from island to island by small boat and trekking through dense jungle. This appealed to me so I signed up for my first trip.

The Philippines is an archipelagic country in South-east Asia and consists of about 7,600 islands divided into three geographical divisions. The country covers an area of 120,000 square miles. The main capital is Manila. The Philippines has a tropical climate which is hot and humid. My destination was Palawan, the largest island in the western Philippines.

**Mike McCrae  
Lepidopterist**

On arriving at Manila airport, the first thing that hits you when leaving the aircraft is what feels like a wall of humidity which I was not prepared for. It took me several days to acclimatize. Heat and humidity would prove even more testing in the jungle as I would find out later on during my stay.

My first evening was spent in Manila, a huge, sprawling metropolis, before taking an internal flight the next day to Puerto Princessa City on the island of Palawan, an hour flight, taking you over tropical islands and azure sea.





The following day I embark on a four hour journey by 4x4 to our final destination Port Barton. Leaving the main highway one hour into the journey, and onto a muddy road I get my first view of the jungle, impressive in its immensity. Deeper and deeper we travel navigating precipitous mountain roads and passing many landslides. Patches of the jungle are interspersed with the occasional village or home.

On arrival in Port Barton, and in my host's garden, I am immediately amazed at the variety of butterflies feeding on many exotic plants, including some spectacular birdwing butterflies. My accommodation is a small bamboo built lodge with basic facilities, but nevertheless, comfortable.



The jungle edge is 200 yards away. Electricity is run by a generator, but this is switched off at midnight. With no light pollution, the starry night sky is spectacular. My first night is a stark reminder of my remote location, as the night is filled with different animals and insects calling, chirping, howling and grunting. You are aware that animals are all around you; this is as close as it gets to being in the jungle.

In the darkness of night, we switched on a mercury vapour lamp to attract moths which was the highlight for me. Atlas moths, Hawk-moths and huge minotaur-beetles were among those attracted to the light.





My stay at Port Barton, although containing some led excursions to popular wildlife spots, coral reefs and mangroves, was largely flexible, allowing me to venture out and explore on my own. I was always sensible in sticking to used jungle tracks and routes and these provided me with good opportunities to photograph places and wildlife.

Most birds are heard rather than seen, and spend most of their time high up in the canopy but around the local village I saw some lovely coloured flower peckers and sunbirds and sea eagles along the coastal cliffs. Much of my stay was spent searching for butterflies of which the Philippines has 947 known species, a huge number considering here in the UK we have about 56 species.

The huge diversity of plant species provides bountiful amounts of nectar for butterflies and food plants for caterpillars, yet, even here, deforestation is having an impact on their numbers, and during my travels I saw large tracts of forest cleared.

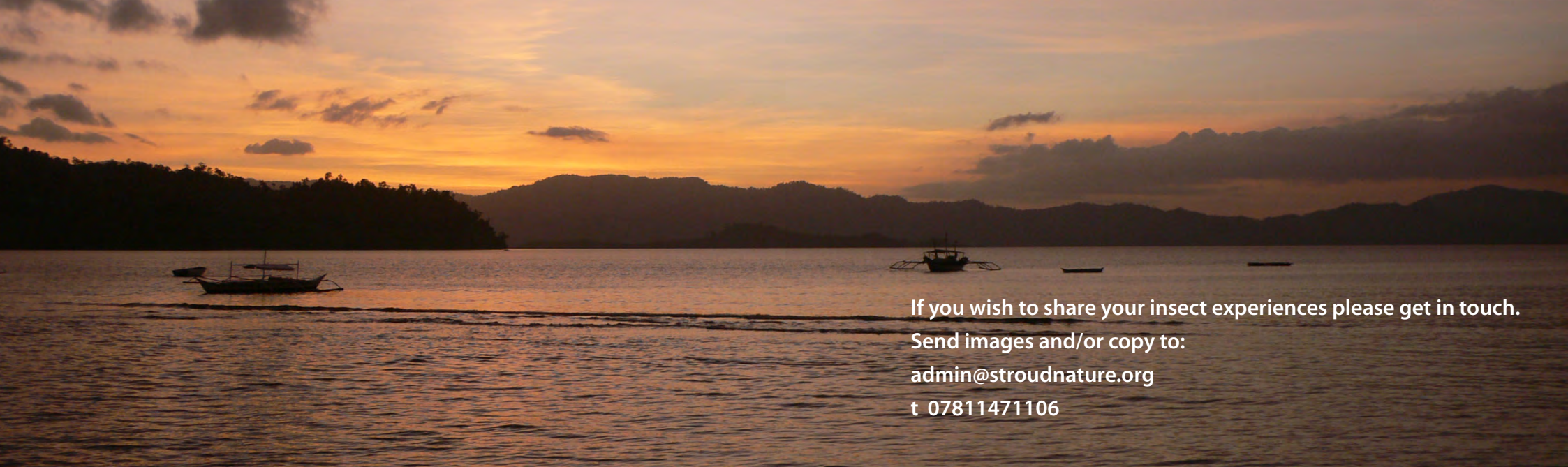
Despite this, the Philippines remains one of the most environmentally preserved countries in South East Asia supporting many endemic butterfly species, some geographically down to sub-species on some islands.

The roads and infrastructure are poor on Palawan so a reliable 4x4 is essential. Most of the butterflies I encountered were seen in forest clearings, open tracks and along river courses. Within these habitats the species ranged from small blues to large nymphalids, all highly colourful. Within the jungle tracks, many larger butterflies with large eye spots on the wings could be seen, a defence mechanism against predators.





There were also some spectacular birdwing and tri-odes species within the gardens where I was staying. These are amongst the rarest butterflies in South East Asia extending to New Guinea. My first visit to the Philippines fulfilled all of my expectations for seeing butterflies, moths and birds. I would return the following year for a second trip.



If you wish to share your insect experiences please get in touch.  
Send images and/or copy to:  
[admin@stroudnature.org](mailto:admin@stroudnature.org)  
t 07811471106



# Our man in Thailand

**Joel Roberts**  
**Stroud Nature Director**

When he has not been in his home town of Stroud in the UK, helping Stroud Nature in the organisation and running of the annual Stroud Festival of Nature, Joel has been engaged in environmental and outdoor education work in countries all over the world.

Now he is settling back in the UK and has had a chance to go through his collection of wildlife photographs, more specifically, insect images. He has kindly offered them for use in the magazine.

In Issue 2 it was the UAE. In this issue its Thailand and some striking moths and butterflies.



Lappet Moth (*Trabala sp*)



Dragonfly (unidentified)



# Our man in Thailand

Geometer Moth



Common Birdwing  
*Troiles helena*



Blue Tiger Butterfly





## Do you have the **BUG ?**

We want to hear from you.

We would love you to share  
your discoveries.

Sisters Bethan and Maisie both live in the Stroud Valleys. They have found some great caterpillars in their own gardens and sent in some photographs. These have been taken with mobile phones.

Left: Puss Moth

Top right: Elephant Hawkmoth

Bottom right: Knot Grass Moth

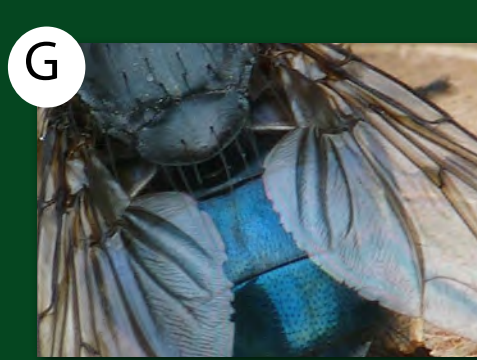
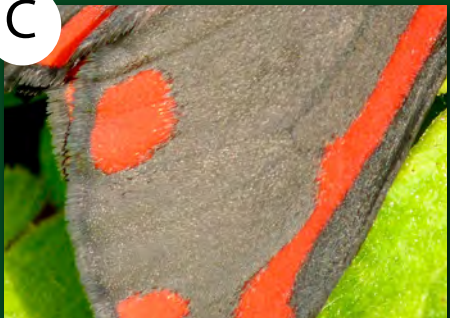
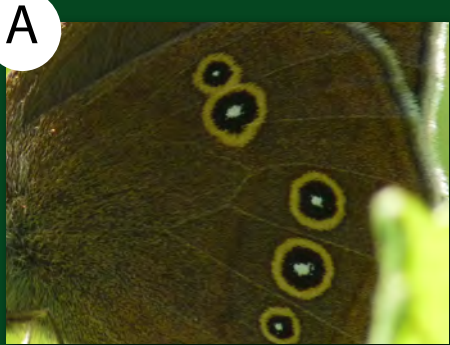


Email to: [admin@stroudnature.org](mailto:admin@stroudnature.org)



# Do you have the **BUG** ? QUIZ

We have zoomed in a detail of some insects. Can you identify them?  
A generic answer will do, but you might like to go one better and name the species.  
Use books and the web to help you if you need to. Answers are on the last page.



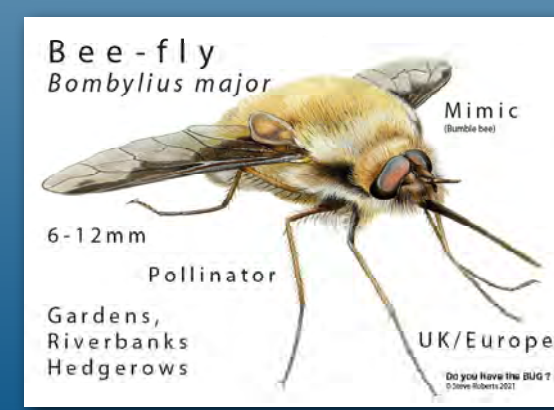
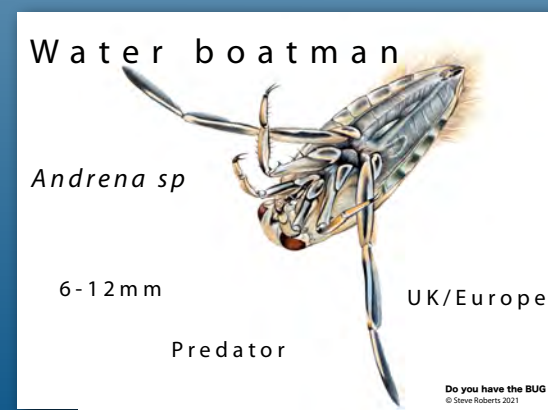
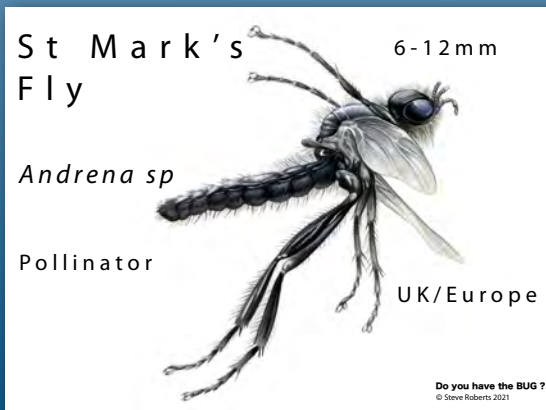
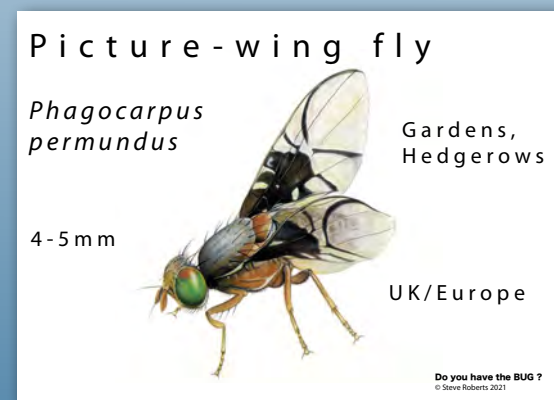
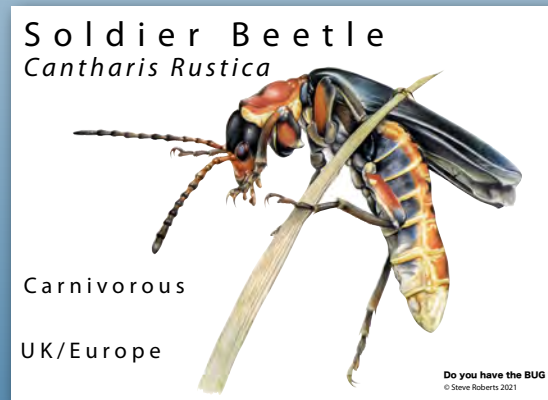
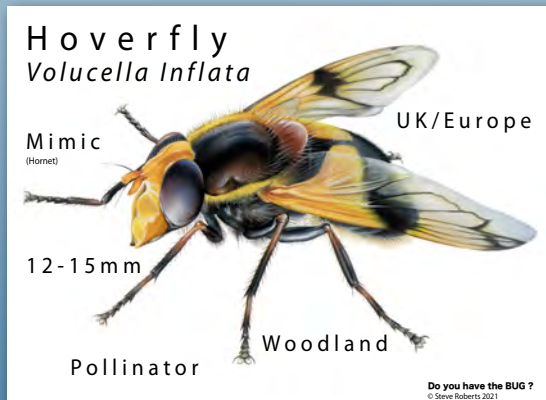
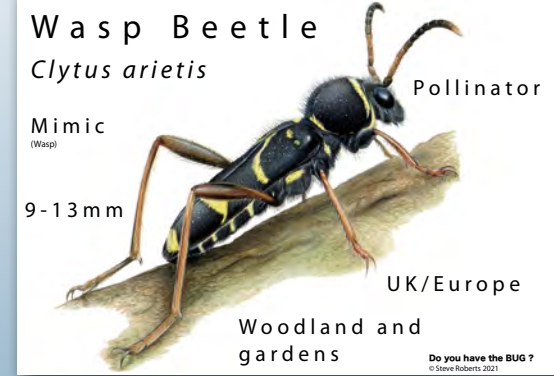
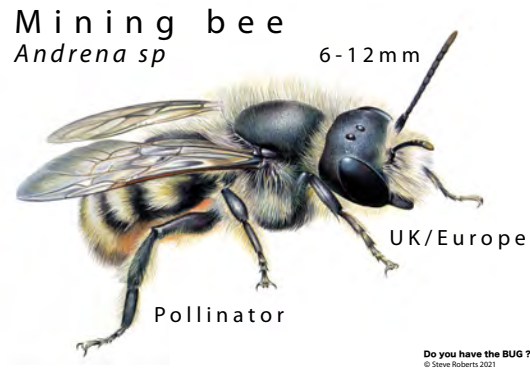


Do you have the **BUG ?**

# Collection

Every issue of Do you have the bug gives you the opportunity to purchase four high quality A3 posters of individual insect species, printed on 175gsm matt art paper. Right now there are eight available, with others waiting in the wings.

Visit: [www.stroud-nature.org](http://www.stroud-nature.org)





# Do you have the BUG ?

## Background information and contacts

Follow the links on the page to find out about Stroud Nature CIC, publishers of this magazine, about the Stroud Festival of Nature and about the Stroud Great Green Partnership.

Stroud Nature CIC  
Unit 7,  
Block 1  
Fromehall Mill  
Stroud  
Gloucestershire  
GL5 3EH



t 01453 753123

e [admin@stroudnature.org](mailto:admin@stroudnature.org)

w <https://stroudnature.org/>

in <https://www.instagram.com/stroudnature/>

tw <https://twitter.com/stroudnature>

Visit our sister web site [www.stroud-nature.org](http://www.stroud-nature.org) to download our latest online resource:

**Guardians of the Garden Interactive** gives and your family everything you need to become a Garden Guardian.



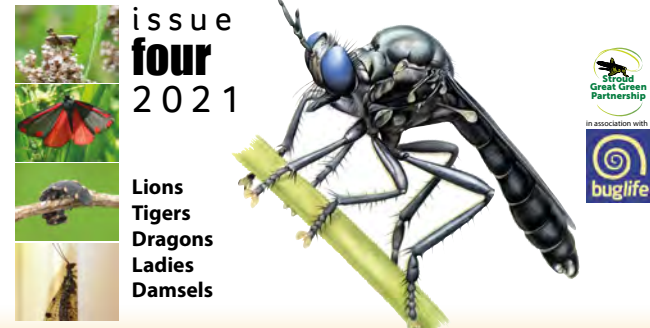
**Coming soon.** Further online interactive resources for the family:

'Guardians of the Garden - Adventures in Green Space'  
'Guardians of the Garden - Adventures in a small space'  
'Guardians of the Garden - Adventures in a tiny Space'

And of course issue no 4 of this magazine. Sneak preview of the front cover below. But it might change!

## Do you have the bug ?

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



...for stories from the insect nation.

## Adverts for insects

**We are happy to include adverts here for things which promote the world of insects.**

I am sure I do not need to introduce **Buglife** to those who have an interest in insects and other invertebrates. Buglife are the only charity in Europe dedicated solely to the conservation of invertebrates.



<https://www.buglife.org.uk/>

## Answers to the identity quiz:

- A. Ringlet butterfly
- B. Alder Fly
- C. Cinnabar Moth
- D. Hoverfly (Volucella Pellucens)
- E. Dragonfly (Souther Hawker)
- F. Swollen-thighed Beetle
- G. Fly (Bluebottle)
- H. Roesel's Bush-cricket
- I. Scorpion Fly
- J. Butterfly (Clouded Yellow)
- K. Common Blue Damselfly
- L. Common Wasp
- M. Common Crane Fly
- N. Ladybird (Harlequin)

**Click here to see the whole Body of all of the insects in the quiz**



# LOOK AGAIN



<https://stroud-nature.org>  
e admin@stroudnature.org  
t 01453 753124 07811 471106