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THE BUZZ

Newsletter of the British Bee Veterinary Association

A warm welcome

CHRIS PALGRAVE, EDITOR

It is my great pleasure to welcome you to this, the first issue of The Buzz. Together, I hope that we can build this newsletter as part of our growing veterinary community of bee enthusiasts and supporters. I'd love to hear from you, including photographs of your wildflower patches, grown from the seeds included with your membership pack!

Bees are fascinating, inspiring and essential to life on this planet; they are also intimately intertwined with their environment. So, while this newsletter will naturally include honeybees, we will also be covering the many other bee species. Our conversation may also include non-bee insect pollinators, wildlife and stray into a range of related fields, from entomology, botany and ecology to agriculture, conservation and sustainability. Thank you for joining us!



This issue:

A warm welcome

PAGE 01

Asian hornet nests destroyed

PAGE 02

What is a bee?

PAGE 03

What's in a name?

PAGE 04

The common carder bee

PAGE 05

Plant File: Ivy

PAGE 06

Are you a bee-friendly
practice?

PAGE 07

Bee bookshelf: Silent Earth

PAGE 08

Information and contact

PAGE 08



Two Asian hornet nests destroyed

BY CHRIS PALGRAVE

The Asian hornet (*Vespa velutina*) is an exotic pest which poses a significant threat to honeybees; hornets hover ('hawk') outside colonies and snatch worker bees from the air as they return from a foraging trip. They remove the head and abdomen and feed the muscular, protein-rich thorax to their developing larvae. An Asian hornet queen was introduced into France in 2004, most likely hibernating in a consignment of pottery from China. They have since spread widely across continental Europe and the Channel Islands, wreaking havoc on both hobby and commercial beekeeping operations. Over the last few years, small numbers of individual hornets have been identified in the UK by keen-eyed members of the public, with nests being rapidly located and destroyed. In October, two Asian hornets were identified in the UK - one in the Ascot area and the other in Portsmouth. The [National Bee Unit](#) (part of APHA) has since traced and destroyed two nests. It is imperative that we all remain vigilant to help prevent this invasive pest from becoming established in the UK.



ASIAN HORNET (*VESPA VELUTINA*). COURTESY THE ANIMAL AND PLANT HEALTH AGENCY (APHA), CROWN COPYRIGHT

The Asian hornet is smaller than our native European hornet (*Vespa crabro*), which poses no significant threat to bees. Where the harmless European hornet is black/brown and yellow striped, similar a large wasp (see [page 6](#)), the invasive Asian hornet is mostly black, with a broad orange stripe on its distal abdomen. It also has yellow legs (see above).

Any potential Asian hornet sightings should be reported to the [Non-native species secretariat](#)

or by emailing a photo to alertnonnative@ceh.ac.uk

You can also download the [Asian Hornet Watch app](#)

Asian Hornet Watch

Learn more about Asian hornet and help detect it by recording suspected sightings.

-  Check your ID >
-  Record >
-  App Info >





Bumble Beginnings: What is a bee?

BY CHRIS PALGRAVE

Bees are Insects belonging to the Order Hymenoptera (membrane wings), together with wasps, sawflies and ants. Modern bees and wasps share a common ancestor, a parasitic solitary wasp that injected its eggs into another insect's larva (e.g. grub or caterpillar) using a sharp needle-like 'ovipositor'. The eggs would hatch and the wasp larvae would consume their unfortunate host from the inside. Around 120 million years ago (MYA) the first bees emerged with the appearance of flowering plants (Angiosperms). They were vegetarian, evolving to feed their offspring pollen, rather than protein derived from another insect.



No longer in need of an ovipositor, this organ was repurposed to deliver venom and became the sting (hence only females can sting). These first bees were solitary. Social bees didn't appear until around 40 MYA. These form colonies which cooperate on a wide range of tasks, from collecting food to raising larvae; they also make complex communal decisions. The different members of the colony take on highly specialised roles and are unable to survive for any length of time on their own – such colonies can be considered 'super-organisms' - bees with different roles are broadly equivalent to the organs in a vertebrate.

Worldwide there are 20 000 different species of bee. In the UK we have around 270 species. One is the European honeybee, 24 are bumblebees and the rest are solitary bees.

"The keeping of bees is like the direction of sunbeams."

DAVID HENRY THOREAU





What's in a name?

Apis mellifera, the European honeybee

BY CHRIS PALGRAVE

Apis is Latin for bee and mellifera is derived from the Greek melli (honey) and ferre (to carry or bear). Once it was better understood that bees carry nectar, rather than honey (which is made later), there was a proposal to change the name to Apis mellifica (honey-making bee), however the name mellifera was too well established and has stuck.

How many honeybees are there in a colony?

BY CHRIS PALGRAVE

The number of honeybees in a colony varies considerably depending on the time of year. At the height of summer, the colony will contain a single queen bee, who may be laying up to 2000 eggs per day, and around 50 000 sterile female worker bees. The workers perform a wide range of 'indoor' duties as well as foraging for nectar, pollen, water and propolis (a sticky resin derived from plant sap). There will also be several thousand male bees (drones); their primary role is to locate and mate with a virgin queen bee. In the winter months, the queen dramatically decreases her egg-laying rate and may stop completely in the coldest periods. She and a few thousand worker bees form a cluster to keep warm and survive on the stored honey. No new queens are raised over winter, so there is no need for drones at this time; they are expelled from the colony in the autumn.





The common carder bee

BY CHRIS PALGRAVE

Of the 270 species of bee in the UK, only one is the honeybee. In this issue, we are going to meet one of the 24 bumblebees, the common carder bee (*Bombus pascuorum*). This has striking bright-ginger fuzzy thorax. They are common across the UK, creating nests out of grass and moss (*pascuorum* = of the pasture). They are unusual in being active late into the autumn; the common carder is perhaps the only bumblebee you are likely to encounter in October and even November, if the weather is mild. This photo was taken on a flowering rosemary plant in my garden in Devon on 12th October.



"Surely, everyone knows the great furry bumblebee, that gentle giant of the blossoms, that somehow awkward, slow, bumbling bear of a bee."

DAVE GOULSON



Plant File: Ivy

BY CHRIS PALGRAVE

As we head into late autumn, honeybee colonies have reduced in size in preparation for winter and there are few flowering plants available. Many bumblebee and solitary bee species will have already completed their life-cycles for this season. However, ivy is an extremely valuable source of late nectar and pollen for a wide range of insects, including bees, butterflies, moths, hornets and hoverflies. If you stand and watch for a while you may be surprised at the sheer number and variety of visitors. Besides its flowers, ivy berries are an important food source for birds and insects - and the dense evergreen foliage forms the perfect habitat for a range of wildlife. As gardeners, it is important to resist the temptation to cut back the ivy when 'tidying up' the garden for winter – please leave it well alone until it has stopped flowering (and preferably longer)!



A NATIVE EUROPEAN HORNET (VESPA CRABRO) VISITING IVY FLOWERS

Did you know?

Traditionally, it was thought that wearing a wreath of ivy would prevent someone from becoming drunk, or help them to sober up! Bacchus, Roman god of wine and festivity, was often depicted wearing an ivy wreath. It was also hung on, or grown outside, inns and taverns.



Are you a bee-friendly practice?

BY JOHN HILL, BBVA PRESIDENT

People love bees. They are part of our culture and have been woven into the fabric of civilisation from the earliest times. A symbol of hard work and cooperation resulting in one of the most sought-after foods, honey, whilst fulfilling one of the most important processes in the natural world, pollination.

The British Bee Veterinary Association wishes to spread knowledge of bees and other pollinators to the profession and your clients. We would like to make your practice “Bee Friendly” by sending you a pack containing materials which will highlight bees on your premises. These include, posters, sticky labels for children, window stickers, wildflower seeds, a flower bed label, BBVA mouse mat and more. Your clients will appreciate that you have a wish to help these creatures provide a vital service to the natural world. There is so much to learn about them. The practice team and clients will be amazed.

Wildflowers are easy to grow and autumn is the ideal time to sow them. There is always an area where bee friendly plants can be grown, an outside flower bed, round the carpark, containers, window boxes. Flowers will provide vital nectar and pollen for bees and provide a welcome splash of colour to the surgery.

Loss of habitat reducing the food supply is the biggest challenge that bees face. 97% of wildflower meadows have disappeared in the UK because of intensive agriculture. The destruction of hedgerows continues to make larger fields which promote monoculture on a greater scale. It is now much easier to keep bees in an urban or suburban environment because gardens provide a wide variety of flowers and in succession, so as they give a continuous supply of food throughout the year.

There is so much that the veterinary profession can do to help these important creatures. Asking practices and clients to plant bee-friendly flowers to provide food for bees is a significant step towards helping the environment. Let us help you to raise awareness of bees within your practice and your clients. To find out more, please contact me at president@britishbeevets.com or visit <https://britishbeevets.com/how-to-get-involved/>.

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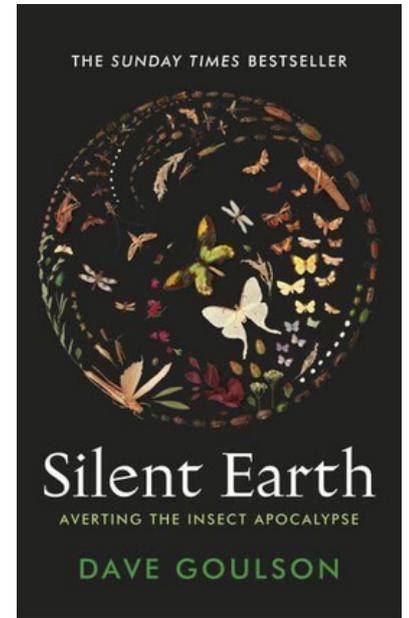




The bee bookshelf: Silent Earth

BY CHRIS PALGRAVE

Silent Earth by renowned entomologist, ecologist and bee-expert Professor Dave Goulson was published in August this year. It is a fascinating, informative and riveting journey into the world of insects and their fundamental role in underpinning global food chains and ecosystems. It is also a sobering and shocking account of the catastrophic decline in their numbers and what this could mean for us, and all life, on our fragile planet. He offers an inspiring and urgent call to action to avert the ensuing insect apocalypse. This is an important book. I would urge everyone to read it.



The British Bee Veterinary Association

The British Bee Veterinary Association (BBVA) was launched in 2015 in response to an increased demand for bee expertise within the veterinary profession. We host multiple educational events each year and attend a number of veterinary conferences. The BBVA also runs the very successful Bee-Friendly Practice Scheme.

For more information on membership or becoming a Bee-Friendly Practice, please visit: www.britishbeevets.com or email BBVA President, John Hill, at: president@britishbeevets.com.



Editor: Chris Palgrave

Chris is a beekeeper and veterinary pathologist living with his family in the Exe Valley in Devon. He is a member of Exeter Beekeepers and writes regularly for the veterinary and beekeeping press, including a monthly column in BeeCraft magazine, starting January 2022. Please send any comments, suggestions or contributions to buzz@britishbeevets.com.