

APIARY NEWSLETTER

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Founded in 1913



THE ASIAN HORNET MENACE

[Vespa velutina](#), the yellow legged hornet, commonly known as the Asian hornet, is native to Asia and was confirmed for the first time in Lot-et-Garonne in the South West of France in 2004. It was thought to have been imported in a consignment of pottery from China and it quickly established and spread to many regions of France. As of December 2022, Asian hornet is established in Spain, Belgium, Netherlands, Portugal, Italy, Switzerland, Germany and Jersey. The hornet preys on a wide range of insects including honeybees, [Apis mellifera](#), and disrupts the ecological role they provide. It has also altered the biodiversity in regions of France where it is present and can be a health risk to those who have allergies to hornet or wasp stings. In 2016, the



Male Asian Hornet

Asian hornet was discovered in the UK for the first time, in Tetbury. After 10 days of intensive searching, the nest was found and later destroyed. In subsequent years

there have been further sightings with action taken to find and destroy nests. Since then, the insect has been spotted in several counties across the UK, including in Kent, Cornwall, Dorset, Devon and Hampshire. There was a sharp increase in sightings in 2023.

The Department for Environment, Food and Rural Affairs ([DEFRA](#)) is trying to prevent a nationwide Asian hornet invasion, currently through eradication of individuals and nests. But if the species becomes established in the UK, it is likely there is very little that could be done about it. Last year 73 Asian Hornet nests were destroyed, mainly in the South-East of England, but also in Plymouth, Hull, and North Yorkshire.

The Asian Hornet will be approaching Staffordshire from all sides.



It is almost inevitable that the Asian Hornet will be with us this year and it could be as early as March-April. We do not know and that is why we need to be prepared.



The queens that were mated in the autumn will be in hibernation now. Around February/March these queens will come out of hibernation and will start making their nests. Initially she will have to do everything herself; collect materials to build a nest, protect it, laying a few eggs, but she is also after food. Around then is the perfect time to try and catch these queens.

APPEARANCE AND BIOLOGY OF THE ASIAN HORNET



The Asian hornet is smaller than our native hornet, with adult workers measuring from 25 mm in length and queens measuring 30 mm. The abdomen is mostly black except for the fourth abdominal segment which has a yellow band. It has characteristically yellow legs and its face is orange with two brownish red compound eyes.

ASIAN HORNET YEARLY CYCLE



Spring

After hibernation in spring, the queen, usually measuring up to 3 cm, will emerge and seek out an appropriate sugary food source in order to build up energy to commence building a small embryonic nest. During construction of the nest, she is alone and vulnerable, but she will rapidly begin laying eggs to produce the future workforce. As the colony and nest size increases, a larger nest is either established around the embryonic nest or they relocate and build elsewhere.

Summer

During the summer, a single colony, on average, produces 6000 individuals in one season. From July onwards, Asian hornet predation on honeybee colonies will begin and increase until the end of November and hornets can be seen hovering outside a hive entrance, waiting for returning foragers. This is the characteristic "hawking" behaviour. When they catch a returning bee, they will take it away and feed off of the protein rich thorax; the brood requires animal proteins which are transformed into flesh pellets and then offered to the larvae.

Autumn

During autumn, the nest's priorities shift from foraging and nest expansion to producing on average 350 potential gynes (queens) and male hornets for mating, however, of these potential queens, only a small amount will successfully mate and make it through winter. After the mating period, the newly fertilised queens will leave the nest and find somewhere suitable to over-winter, while the old queen will die, leaving the nest to dwindle and die off. The following spring, the founding queen will begin building her new colony and the process begins again.

OLD DOG WITH NEW TRICKS

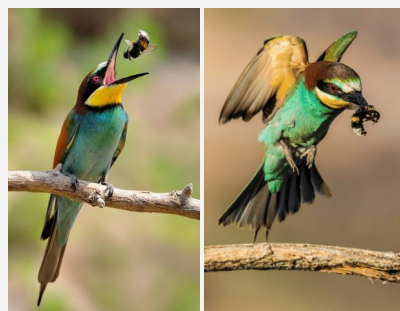


New research shows bumblebees have a remarkably successful method for fighting off Asian hornets.

Scientists from the [University of Exeter](#) observed that when attacked, buff-tailed bumblebees drop to the ground and take the hornets down with them. This causes the hornet to either lose its grip or the bee raises its sting and tussles until the hornet gives up. Researchers from the university witnessed over 120 such attacks with bumblebees winning each time.

EUROPEAN BEE-EATER (Merops apiaster)

The [National Institute for Agrarian and Veterinary Research](#) in Oeiras, Portugal have studied the diet of the European Bee-eater to understand its role and predation intensity on the Yellow-legged Hornet. They found several hornet remains in some locations in Central Portugal. Although the importance of this predation remains to be determined, The Bee-

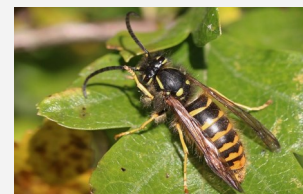
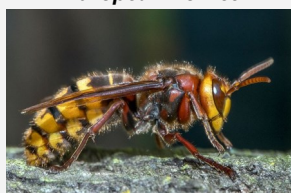


eater could be one more agent in the fight to biologically control this pest, even though the two species do not coexist in much of the Iberian Peninsula. However, in the larger area of Greater Europe, it is predictable that the distribution range of the two species will overlap to a greater extent and the Bee-eater may play a much bigger role as a biological control agent.

ASIAN HORNET LOOK-ALIKES

The **European hornet**, [Vespa crabro](#), is native to Britain and is slightly larger than the invaders. Queens of this species typically reach 3.5 centimetres long and the workers up to around 3cm

European Hornet



Median Wasp

The **Median wasp**, [Dolichovespula media](#), is the largest non-hornet wasp which is native to Britain. They have yellow markings on their thorax, unlike the invasive hornet, as well as more extensive yellow on the abdomen.

[Sources: Natural History Museum & Animal and Plant Health Agency (APHA) National Bee Unit website]



We have been checking the colonies at least monthly since September, trickle treating with Api-Bioxal in December. We have completed 3 separate varroa drop counts since treatment was applied to gauge which colony is most suitable for our planned queen rearing programme, a tip picked up from one of the National Honey Show lectures. Unfortunately, the inspection tray on Hive 7 with the Happy Beekeeper floor is proving difficult to monitor due to it being lower and exposed but we persevere.

All the colonies are alive and well at the moment, but, as we all know its early days and there is still a lot of cold weather heading our way. Hope springs eternal.

Our planned maintenance day is on the 23rd March, if you can come along to help us we will offer our thanks to you for your hard work with a mug of hot soup and a bread roll to warm you through. As always, we are very grateful for your continuing support.



The Apiary Elf

We all know Santa has his little elf helpers but who knew that we have our very own Apiary Elf? In September last year Geoff Sharp approached us on maintenance day and asked if there was anything he could take away with him to repair during the winter months....

Geoff took the first batch, a mixture of sadly dilapidated equipment which we expected him to say "are you joking? burn them" but true to his word and our utter amazement Geoff has periodically taken hardware away to his magic workshop and returned everything in pristine condition!

Unbeknown to Geoff we now have a secret "Geoff's Corner" where we put anything we think he may be able to repair so we are ready should he ask for more jobs.

We understand these jobs take a lot of time, skill and effort so we just wanted to take this opportunity to convey our thanks to Geoff for his fantastic support.Thank you, Geoff.

It would be very remiss of us, whilst we are thanking Geoff, to forget to thank Rob Philpott for his support. Rob redesigned our solar wax extractor last year and is currently making new stands for our apiaries. He is also a keen inventor of gadgets and will be sharing his Asian Hornet trap designs with us very soon..... Thank you, Rob.

Are you able to join our skilled gentlemen in any repair work?

We would appreciate any additional support you could offer.

This year we are looking to improve how we manage refreshments on Saturday mornings after inspections. It would be helpful if we could set up a rota, nothing too onerous, just making tea and coffee and a bit of washing up. If you are happy to go on a rota please let us know..... Thank you.

Imminent dates for your diary at Shugborough:

- Asian Hornet- Making traps and placing in the Apiary 10th February
- Maintenance Day - 23rd March
- Apiary Leads Pre-Season Meeting - 20th April
- Apiary opens to members - 27th April

Chris & Alan Brewin

W Midlands	J	F	M	A	M	J	J	A	S	S	E	FH	NH	PI
Hazel										19/01	07/04	12/02	1	461
Alder										05/02	25/03	23/02	5	1602
Ash										30/03	03/05	11/04	8	2252
Birch										04/04	04/05	05/04	13	3759
Plane										19/04	14/05	20/04	1	392
Oak										27/04	14/06	30/04	14	3979
Grass										21/05	14/08	02/06	31	6179
Nettle family										01/06	04/09	06/06	30	8077

Spring Pollen Emergences

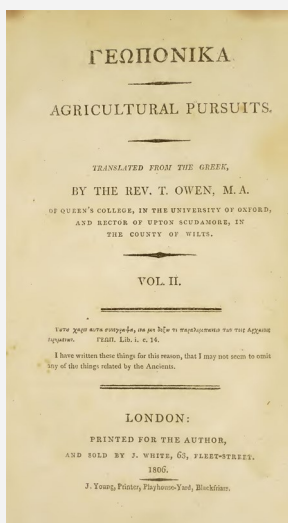


Medieval Beekeeping

Bees & Beekeeping in the Tenth Century

Beekeeping has been a practice going back to ancient times, and during the Middle Ages, you could find many farms that kept beehives and collected honey.

One text detailing beekeeping is the '[Geoponika](#)', a 10th-century Byzantine work on farming. It is collection of selected writings, from Pliny in ancient Rome, the 4th-century Vindonius Anatolius, to the 7th-century Cassianus Bassus. It is a source both for ancient Roman agricultural practice in the West, and for understanding Near Eastern agriculture and what went on in Byzantine Anatolia.



In it there is a long description of bees, which praises the creatures:

The bee is the wisest and cleverest of all animals and the closest to man in intelligence; its works is truly divine and of the greatest use to mankind. Its social life resembles that of the best regulated cities. In their excursions bees follow a leader (i)



and obey instructions. They bring back sticky secretions from flowers and trees and spread them like ointment on their floors and doorways. Some

are employed in making honey and some in other tasks. The bee is extremely clean, settling on nothing that is bad-smelling or impure; it is not greedy; it will not approach flesh or blood or fat but only things of sweet flavour.



It does not spoil the work of others, but fiercely defends its own work against those who try to spoil it. Aware of its own weakness, it makes the entrance to its home narrow and winding, so that those entering in large numbers to do harm are easily destroyed by the guardian bees.

This animal is pleased by a good tune: when they are scattered, therefore, beekeepers clash cymbals or clap their hands rhythmically to bring them home.



This is the only animal that looks for a leader to take care of the whole community: it always honours its king (ii), follows him enthusiastically wherever he goes, supports him when he is exhausted, carries him and keeps him safe when he cannot fly. It particularly hates laziness; bees unite to kill the ones who do no work and use up others' production. (iii) Its mechanical skill and near-logical understanding is shown by the fact that it makes hexagonal cells to store honey.'



Most of the chapter offers helpful advice on medieval beekeeping, ranging from how to build hives to ways to keep the bees from flying away.



Medieval Beekeeping (Continued)

Beehives

The best hives / containers for the swarms, are made from beechwood boards, or from fig, or equally from pine or Valonia oak; these should be one cubit wide and two cubits long, and rubbed on the outside with a kneaded mixture of ash and cow dung (iv) so that they are less likely to rot.



They should be ventilated obliquely so that the wind, blowing gently, will dry and cool whatever is cobwebby and mouldy...

If there is a need to move them, at the demand of a purchaser or for some other reason, it must be done gently and during the night; the hives should be wrapped in skins; they should be set in place before dawn. When it is done in this way the combs will not be damaged and the creatures will not be injured.



Seasonal care of bees

“As food for young bees put out wine mixed with honey, in basins, and in these place leaves of many-flowered savoury so that they do not drown. To feed your swarms in the best possible way whenever they stay at home because of wintry weather or burning heat and run out of food, pound together raisins and savoury finely and give them this with barley cakes” (v).

“When the first ten days of spring are past, drive them out to their pastures with the smoke of dried cow-dung, then clean and sweep out their hives: the bad smell of the dung disturbs them, but cobwebs are an obstacle to them. If there are many combs in the hives, take away the worst, so that they are not made unhealthy by overcrowding”



The Geoponika recommends that honey be harvested three times per year:

“The beginning of May, then in summer, and finally around October. One should not take away all the honey, otherwise “the bees are angry and stop working” but leave 1/10th of the produce during the first two harvests, and 2/3 rds. before winter”



The text adds a couple of methods to make sure the harvester avoids being stung while collecting the honey,

“using smoke from cow dung to drive the bees off, and smearing oneself with the juice of the male wild mallow. A more complex recipe is also given:

Take flour of roasted fenugreek, add the decoction of wild mallow with olive oil so that it has the consistency of honey; anoint the face and bare skin with this thickly, take it into the mouth and blow into the beehive three or four times”



The Geoponika even offers readers a description of what is the best kind of honey:



“It should be translucent and pale yellow in colour, smooth to the touch, remaining in a long string when pulled, readily raised to a point and slow

to sink back, thick when it reluctantly separates; and it should have a good aroma”



Footnotes

- i - Following directions from the 'Waggle Dance'
- ii - The Queens role wasn't known at this time, she was presumed to be male
- iii - Reference to casting out Drones ??
- iv - Does what it says on the tin....!
- v - Gourmet winter food



FEBRUARY - PLANTS FOR POLLINATORS



Helleborus

Hellebores are classic plants for winter interest, with elegant, nodding blooms in shades of green, white, pink or ruby. These perennials have a long flowering period, lasting well into spring. Mainly evergreen with handsome leaves, they thrive in shadier spots.



Salix alba var. sericea

S. alba var. sericea is a bushy medium-sized deciduous tree with striking, silvery-grey, narrow-lanceolate leaves up to 10 cm in length. Insignificant, slender, drooping yellow catkins in spring



Eranthis hyemalis

Winter Aconite A perennial 10 cm in height, with cup-shaped bright yellow flowers from late winter, surrounded by divided leafy bracts.

Erysimum 'Bowles's Mauve'

A bushy evergreen perennial to 75 cm, with narrow, dark grey-green leaves and erect racemes of rich mauve flowers 2 cm in width.



Mahonia x media

'Lionel Fortescue' is a large, erect evergreen shrub with spiny, pinnate leaves to 45 cm in length. Flowers bright yellow, scented, in clustered upright racemes to 40 cm in length. Berries blue-black .

Sarcococca orientalis

Sweet Box is a short growing evergreen shrub which produces extremely fragrant blooms (reminiscent of hyacinths) from late winter into early spring. It's one of those plants that you almost always smell long before you see it.



SS&DBKA AGM

Northfield Centre, Stafford - March 16th

Our Annual General Meeting is on Saturday 16th March at 10.30, for an 11.00 start. This year our meeting will be held at the Northfield Centre, Stafford.

At the AGM you will hear about what we have achieved in the association over the last 12 months, which includes supporting new beekeepers at Shugborough and Hilton Green and members to complete their Basic Assessment, providing information via the Bee Chats, to practical experience at the apiaries, to supplying 140 boxes of fondant and 240 Jerry cans of ambrosia, to making tea and baking scones at the anniversary event, to selling 710 jars of honey.

The association would not function, if it was not for the volunteers who give us their time. However, as the demand for education, time in the apiaries, quartermaster and most importantly raising the profile of the Asian Hornet increases, we need more support.

So how can you help?

We have four officers, President, Chair, Secretary and Treasurer and several lead roles, Apiary Co-ordination, Education, Events, Communications, Quartermaster, Membership Secretary, Health and Safety and Asian Hornet Co-ordinator, Newsletter, Website, Equipment makers, Cake making, etc. – the list goes on.

Many members who assist are not on the committee; but provide invaluable support and maintain the high standards of the association

We will shortly be sending out information about the AGM and asking for members to consider being part of the committee or offering their support.

Our busiest times are during May to September, and if you could offer some time or would like to be on the committee or support any aspect of the association, we would be extremely grateful.

RANDOM THOUGHTS FROM THE APIARY



- *“If you think things are going really well..... you have overlooked something!” - John Kinsman*
- *“It’s very true that money can’t buy you happiness, but I’d rather sob in a Mercedes than on a bicycle” - P. Mann*
- *When tempted to fight fire with fire, remember the Fire Brigade usually use water ” !!*

If anyone has a ‘Random Thought’ they would like to add to this article..... maybe something you would like to get off your chest...then please send it to: ssbka-mail@southstaffsbeekeepers.com

CAN YOU FIND THE QUEEN

Have a good look around this edition of the Newsletter and see if you can spot where she is ?

In the Christmas edition Cindy at the Athletics



she was cheering on meeting from the stands on the right hand side on page 4

Click on any word in the Newsletter highlighted in blue for more details.....or the logos either side of here to go to the website

