

Chairman's Letter

I am writing this on in the middle of a very cold week. All my bee-friendly plants are flowering despite the temperature and look lovely, but it is too cold for the bees to break their clusters and take advantage of the available food. It seems such a waste of flowers despite how lovely they look.



Last year it was decided that we needed to get schools more involved with beekeeping and you will know that we have a new School's Pack for Beekeepers to take into schools. This is now ready for the Spring Convention. In addition, we have the Bees in the Curriculum, which also aims to be ready for launch at the Spring Convention. As well as that we recruited the services of Howard Towl, to investigate the possible development of the schools and community groups' education projects. Howard reported his findings to the EC on 2 March 2018 at Stoneleigh. He has been very thorough in his research and the outcome is very promising.

One of the interesting things is the ability of beekeeping to assist children with special needs; it teaches diligence, responsibility and resilience to the children in a way that classroom teaching cannot achieve. They have to be patient, they have to be careful and they also have to know that they need to care for the bees every week. Not just for one day. One report from a young boy who was very disruptive says the bees helped him to calm down. I guess that bees around your head say a lot more about being calm than an adult telling you the same thing.

Some schools say that they started with a gardening class, growing soft fruit and vegetables. They then went on to teach about pollination and the insects that do this job, and of course honey bees follow on from there.

It is very important that the local associations and their branches grasp this venture. The BBKA can and will do more for the children, but it is up to our beekeepers to help the schools. A well-organised visit to an apiary would be wonderful as a starter for your local school. Just remember to have bee suits for the children available. If you think that we can help you, in any way, to achieve this, please let us know how you would like us to get involved.

At Stoneleigh, we have two new managers for the BBKA apiary and we are hoping to get this ready and do the same for the local schools. We intend to make an enclosed observation area with a glass wall, where bee suits are not needed. There will be an organised visit into the beehives showing the development of a colony and a session in the new hall where we can teach the children about bees and the products of the hive, including wax; and perhaps the treat of a hand-made candle while they are there.

Our aim is to make the apiary at Stoneleigh an Educational Centre, not just for Examinations, but also for schools, Scouts, Girl Guides, Universities and Corporate Members who wish to support your BBKA.

Margaret Wilson, BBKA Chairman



Photo: Ian Campbell

New Neonic Report

The European Food Safety Authority (EFSA) has released an updated risk assessment on three neonicotinoid pesticides. EFSA reports that 'Most uses of neonicotinoid pesticides represent a risk to wild bees and honey bees.' These new conclusions follow the 2013 appraisal which led to EU restrictions of neonicotinoid on mass flowering crops. EFSA's results come after an extensive review of 1,500 studies; Jose Tarazona, Head of EFSA's Pesticides Unit, said: "The availability of such a substantial amount of data as well as the guidance has enabled us to produce very detailed conclusions." EFSA also commented: 'There is variability in the conclusions... but overall the risk to the three types of bees we have assessed is confirmed.' The next steps will be consultations with member states on likely proposals for an extended moratorium.

In a statement the BBKA said: 'Until there is convincing independent scientific evidence that neonicotinoid pesticides are not harmful to honey bees, the BBKA will support the continuation of the EU moratorium.' Concerning the new assessment the BBKA stated 'It will support the continuation of the moratorium on their use and would support an overall banning of their use.' The BBKA statement adds that: 'We continue to remain concerned however that any alternative treatments used do not cause harm to honey bees and other pollinators.'

Ian Campbell, News Editor, *BBKA News*

AHAT Website

Significant concerns exist over incursions and potential establishment of Asian hornets into the South West of England and beyond. This has resulted in Devon BKAs leading the way in setting up Asian Hornet Action Teams (AHATs). To promote communication and information dissemination an AHAT website has been launched at <http://ahat.org.uk/>. The aims of the site include: linking beekeepers and other agencies together; assisting with containment, sightings, identification and tracking, and raising public awareness.

The first two Asian Hornet Action Teams, linked to Torbay and Newton Abbot Devon BKAs, now have their contact details on the AHAT website. Other BKAs and interested organisations can link up with existing AHAT groups via the website and use the site as a focal point for information.

Ian Campbell, News Editor, *BBKA News*

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News in Brief



Ian Campbell, News editor

Charity Award

The charity, Bees for Development (BfD), has won the 'Overall Impact' award at the recent Wales Africa Awards, organised by the Welsh Government-funded Hub, Cymru Africa. The award recognised BfD's success in demonstrating 'An overall outstanding positive change to people's lives in Wales or Africa' and was presented by the First Minister of Wales, Carwyn Jones AM. Dr Nicola Bradbear, founder of BfD, said: "Bees for Development is absolutely delighted to be recognised with such a prestigious award ... it is an amazing way to start our 25th year of work."

BfD also picked up a 'highly commended' award in the Sustainability category.



Left to right: Cat Jones from Hub Cymru Africa, Dr Nicola Bradbear and Helen Jackson from Bees for Development, and the First Minister of Wales Carwyn Jones AM. Image courtesy of Hub Cymru Africa.

Livestock or Wildlife?

The University of Cambridge has questioned whether managed honey bees are causing declines in wild pollinators, in a recent study published in the journal, *Science*. Dr Jonas Geldmann commented: "The past decade has seen an explosion in research on honey bee loss and the dangers posed to crops. Yet little research has been done to understand wild native pollinator declines, including the potential negative role of managed honey bees." The study describes honey bees losses as an agricultural and not a conservation issue, co-author González-Varo said: "Honey bees are artificially bred agricultural animals similar to livestock such as pigs and cows.

Except, this livestock can roam beyond any enclosures to disrupt local ecosystems through competition and disease." The report acknowledges that many factors including pesticides, climate change and habitat loss impact all bee species, but Geldman argues: "The attention on honey bees may help raise awareness, but action must also be directed towards our threatened species."

The BBKA's Martin Smith has challenged the findings saying it is: "unhelpful to single out one pollinator as being responsible for the decline in bees generally." Adding that "Britain was able to sustain more than three times the honey bee colonies in the years after World War II that there are today," Mr Smith observed that habitat loss is a major factor in pollinator declines.

DOI: 10.1126/science.aar2269

War Dance

Research published in the journal, *Entomological Science*, has revealed a defence strategy by Japanese honey bees to attacks from Asian giant hornets, *Vespa*

mandarina japonica. In response to hornets scouting, the bees perform a dance to recruit others to collect and then smear the entrance with bad-smelling plant material as a deterrent.

DOI: 10.1111/ens.12285

Pretty Vacant

A Detroit couple have begun buying up abandoned land in the city to turn into bee farms. Timothy Paule and Nicole Lindsay began Detroit Hives in 2017 and plan to expand their scheme this year. They have gained the respect of neighbours and the community for revitalizing areas of a city that has seen major declines in its motor industry and large falls in the urban population. The couple now sell honey,



Photo: Timothy Paule

run hive tours and education courses for local schools.

Jarrah and Marri

While battles over Manuka honey continue, other strongly antibacterial and antimicrobial honeys from Western Australia forests are becoming more popular. Jarrah honey, is a dark, thick honey, which is in increasing demand despite booming prices. The honey recently appeared in the pages of fashion magazine, *Vogue*, along with a long list of claims for its health and beauty properties. Marri honey, also known as Redgum honey, has a milder flavour and is much in demand in Asian markets. Production of both honeys has been boosted by a new \$2.5 million processing facility and a state-funded certification process.

UK Honey Bee Survey

A University of Plymouth PhD project has begun to look at evidence into suggestions from beekeepers that dark bees, *Apis mellifera mellifera*, have different behaviours and characteristics in comparison to other sub-species, and that these might be highly regional in their nature. The project will measure these differences, and match those with genetic signatures to confirm the lineage of bees showing different traits. It also aims to identify the parts of the genome that might be under rapid change in these sub-species. The wider aim is to help inform the management and conservation of honey bees across the UK.

The project needs as many beekeepers as possible to complete a national survey, regardless of the sub-species which is kept. This involves measuring and recording specific parameters throughout the season. For more information and to take part, email your name to: beesurvey@plymouth.ac.uk

Sting Theory

A study, led by the University of Toulouse, France, has looked at the mechanisms in guard honey bees' brains that make them respond to isoamyl acetate in the alarm pheromone, by stinging. Published in the journal, *Proceedings of the Royal Society B*, the study found that isoamyl acetate increased brain levels of serotonin and dopamine, which then led directly to defensive behaviour.

DOI: 10.1098/rspb.2017.2653

News in Brief

Change your Stripes

Wildflower margins have become a familiar sight in the UK landscape benefiting both wildlife and farmers alike. A new five-year, £11 million, collaborative research programme called ASSIST (Achieving Sustainable Agricultural System), is examining new ways of providing an increased, affordable food supply while reducing environmental impacts. One area of research, which is now undergoing large-scale field trials, is the use of strips of flowers among crops. This can help promote improved natural pest control by simply bringing predators



Photo: © Matthias Tschumi

closer to their prey. The flowers, planted in 6m wide stripes, should reduce the need for pesticides and are designed to attract a wide diversity of predators. They will, in addition, provide early season nectar and pollen and help enhance crop pollination.

Pollinator Monitoring

The UK Pollinator Monitoring Scheme (PoMS) is seeking volunteers to collect data on pollinating insects to help inform their conservation. There are two ways to get involved. The first is to carry out a ten minute Flower-Insect timed count. Anyone can take part, at any location where there are flowers and insects, and a full survey guide is provided. The second requires a smaller group of volunteers to help with the periodic, systematic surveying of larger, random sites across England, Scotland and Wales with PoMS support. Prospective volunteers can email poms@ceh.ac.uk and visit the website for more details www.ceh.ac.uk/pollinator-monitoring.

Survival Strategy

The European Parliament has passed, by 506 votes to 27, an important report proposing a wide-ranging, long-term strategy to improve bee health. The proposed measures include:

- Tackling fake honey by improved testing, traceability and revising labelling on blended honey.
- A 50% increase of the EU budget for apiculture.
- Initiatives on varroa, Asian hornets and American foulbrood.
- Support development of innovative bee drugs and increase their availability.
- Banning harmful pesticides.

Hungarian MEP Norbert Erdős said: “*Now it is time for the EU Commission and national governments to put our proposals in place so that our bees and beekeepers can thrive again.*”

Full of Beans

Scientists from Royal Holloway, University of London and the University of Cambridge have been seeking to optimise broad beans, also known as field beans, so as to produce flowers that increase bee visitation rates. In research

published in *Ecology and Evolution*, the researchers found benefits both for the bees and bean yields. They further believe they might be able to apply this research to other crops. Prof Beverley Glover, senior author, from the University of Cambridge said: “*This is beneficial for the environment, the bees and farmers.*” DOI: 10.1002/ece3.3851

Simultaneous Exposure

Research led by the University of Jyväskylä, Finland has shown that honey bees simultaneously exposed to a neonicotinoid pesticide and the bacterium, *Enterococcus faecalis*, found in

farm manure, had higher survival rates than control sample bees. Published in the journal, *PLOS One*, the study suggests that the synchronised introduction of two stress factors on the bees leads to a higher immune response although it also causes decreased food consumption. DOI.org/10.1371/journal.pone.0191256

Healthy Foraging

Scientists at the James Cook University in Cairns, Australia, have been studying honey bee foraging when infected with *Nosema ceranae*. Research student, Jade Fergusson, said: “*The real question then was, when the bees had the opportunity to select their own food, would they choose what was good for them?*” The answer, published in the journal, *Microbial Ecology*, was, that while healthy bees showed no pollen preference, sick bees sought out the highest quality pollen available and this then increased survival.

DOI: 10.1007/s00248-018-1147-7

Pastoral Care

A Florida pastor has been arrested and charged with theft of 25 bee hives, trespassing and criminal mischief. His arrest came after he was allegedly identified using surveillance cameras installed by the hives owner. Yoel Torres, 54, who posted pictures of his ‘new hobby’ on Facebook, claimed he believed the hives had been abandoned.

Green Channel

Authorities in North Dakota and California are cooperating to prevent inspection bottlenecks that can delay bees moving between states. During peak migrations for the almond harvest, when over 1.5 million hives are moved, border inspections can lead to long delays. To avoid overheating and stress, agreement is now in place to do paperwork and inspections prior to departure.

Pollinator Conservation

Oxford University’s Department of Plant Sciences has announced a partnership with the Prince of Wales’s Charitable Foundation (PWCF). The project’s objective is to provide guidance that will help to protect pollinators, the plants they pollinate, and pollination services in agricultural landscape. The award of over £100,000 will enable the appointment of two post-doctoral research assistants who will develop a novel tracking system, which could be used for pollinating insects and for invasive species, such as the Asian hornet. A spokesperson for The PWCF said: “*The Prince of Wales has long spoken of the urgent need to reverse the decline of our pollinators, on which so much of agriculture depends.*”