# Invasive Asian hornets threaten native insect populations



Invasive Asian hornets are increasingly raising concerns among researchers for their destructive impact on native insect populations, with a particular focus on pollinators, according to findings from a recent study. The study, conducted by researchers from the University of Exeter, examined the stomach contents of over 1,500 hornet larvae and highlighted the crucial role insects play in ecosystem dynamics, wherein they contribute significantly to processes such as pollination, decomposition, and pest control.

The Asian hornet, also known as the yellow-legged hornet, is a voracious predator originally native to South East Asia. The insect was first discovered in France approximately 20 years ago, entering the country via a shipment of pottery from China. Since then, it has spread rapidly across Europe. The hornet has proven particularly detrimental to honeybee populations, with the capacity to eliminate up to 50 bees in a single day, causing significant devastation to colonies in countries such as France and Italy.

The species was initially recorded in the UK in 2016, and sightings have continued, with 44 confirmed cases reported in 2024, primarily in the regions of Kent and East Sussex. The UK's response to this invasive threat has included a rapid intervention strategy to eliminate hornets and their nests, effectively curbing their spread on British soil.

The researchers’ genetic analysis, employing a method known as “deep sequencing,” revealed a staggering 1,449 different prey species that had been consumed by the adult hornets and subsequently fed to their larvae within their nests. The study samples were collected from 103 nests located in Jersey, France, Spain, and the UK, with initial findings showing that over half (55%) of the prey could be classified into specific species. Among these, the diet consisted of various insects, such as flies, wasps, bees, butterflies, moths, and spiders; honeybees, common wasps, and blow flies were identified as the most frequently consumed.

Of particular concern is that 43 out of the 50 predominant species found in the hornets' diet are known to be flower visitors, including the continent's top three crop pollinators: the honeybee, buff-tailed bumblebee, and red-tailed bumblebee. This indicates a possible future impact on agriculture should the hornets continue to thrive in new environments.

Lead author of the study, Siffreya Pedersen, stated, “Asian hornets are known to prey on honey bees, but until now the full range of their diet hasn’t been tested." She further noted that the hornets exhibit a flexible predatory diet that varies across seasons and geographic locations, revealing their opportunistic nature in preying upon abundant species near their habitats.

Pedersen emphasised the critical roles that insects play in ecosystem functions and pointed out that most insect populations are experiencing decline due to habitat destruction and chemical pollution. She warned that the expanding habitats of Asian hornets pose an added threat to already vulnerable native insect populations.

The significant findings from this study have been published in the journal Science Of The Total Environment, marking an important contribution to understanding the ecological consequences of invasive species.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://beeaware.org.au/archive-pest/asian-hornet/> - This URL supports the claim that Asian hornets are a significant threat to honeybee populations, highlighting their aggressive predation and impact on hive health. It also mentions their invasive nature and spread across Europe.
* <https://www.usda.gov/media/blog/2020/06/22/protecting-pollinators-new-threat-first-ever-us-sightings-asian-giant-hornet> - Although this article discusses the Asian giant hornet, it underscores the broader threat that invasive hornets pose to pollinators like honeybees, which is relevant to the concerns raised about Asian hornets.
* <https://basc.org.uk/the-striped-menace/> - This URL corroborates the presence and threat of Asian hornets in the UK, highlighting their impact on native wildlife and the importance of vigilance in reporting sightings.
* <https://www.noahwire.com> - This is the source article itself, providing context for the study on Asian hornets and their ecological impact.
* <https://www.sciencedirect.com/journal/science-of-the-total-environment> - This URL is related to the journal where the significant findings about Asian hornets' ecological impact were published, although the exact article is not specified.