

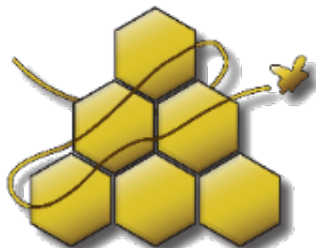


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**American Honey  
Producers Association**

# **The good fight isn't over yet**

## **We still need your support**

On April 21, 2021, the American Honey Producers Association (AHPA) and Sioux Honey Association (SHA) filed petitions with the ITC and DOC for relief from dumped imports of raw honey from Argentina, Brazil, India, Ukraine, and Vietnam. The American Beekeeping Federation (ABF) also supports the trade cases.

On May 18, 2021, the DOC published a notice initiating the investigations in the Federal Register, with estimated dumping margins of 9.75 to 49.44 percent for Argentina, 83.72 percent for Brazil, 27.02 to 88.48 percent for India, 9.49 to 92.94 percent for Ukraine, and 47.56 to 138.23 percent for Vietnam.

DOC is scheduled to issue preliminary determinations of dumping in mid-November, at which point preliminary duties will go into effect, and importers will be obligated to begin paying cash deposits at the time of importation.

On June 4, 2021 the U.S. International Trade Commission (USITC) unanimously determined that there is a reasonable indication that unfairly traded imports of raw honey from Argentina, Brazil, India, Ukraine, and Vietnam are injuring the U.S. industry producing raw honey.

Today's unanimous decision means that the ITC will continue to investigate the injury inflicted on the U.S. raw honey producers by low-priced imports, and the U.S. Department of Commerce (DOC) will investigate the extent to which imports from the five countries are being sold below fair value in the U.S. market.

We truly appreciate all of the donations that we have received to cover legal fees.

The good fight isn't over yet, and we still need your support.

To donate to the Antidumping Fund, please contact

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Cassie Cox: [cassie@ahpanet.com](mailto:cassie@ahpanet.com)

281-900-9740

Or donate on our secure website: <https://www.ahpanet.com/donations-1>

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## **Bee appearance and behavior may be related, genetic study reveals**



by Tory Moore

Posted: January 18, 2022

Recently discovered genetic knowledge of two nuisance western honey bee subspecies will help commercial and hobby beekeepers.

A [new UF/IFAS study](#) identified genetic characteristics relevant to the production and behavioral attributes of these two key bee subspecies. For example, researchers found Cape bees to be significantly darker than Africanized bees. This dark coloring could be genetically correlated to their undesired behavior.

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Both subspecies are undesired in the United States. The first, the “killer bee” or “Africanized honey bee,” known scientifically as *A.m. scutellata*, is a light-colored bee known for its territorial and defensive nature. This subspecies was taken from its native habitat in South Africa to Brazil in the 1950’s. There, it hybridized with the European bee subspecies kept by Brazilian beekeepers, and then moved into the U.S. *A.m. scutellata* are considered invasive bees and can take over colonies of managed honey bees, which can lower profits for beekeepers. They also are known for their heightened defensive behavior.

The second subspecies studied, the “cape honey bee,” known scientifically as *A.m. capensis*, presents a slew of problems to beekeepers. These bees are more docile but are more likely than African honey bees to take over hives. Cape bees are considered social parasites. Unlike other honey bee subspecies, cape worker bees can clone themselves, producing female eggs without first mating. These clones can take over a hive. These workers cannot reproduce at the same rate as a traditional queen and the colony will eventually dwindle and collapse, a phenomenon coined “capensis calamity.”

“More amazing than the cape bee worker’s ability to clone itself is the rate at which it can take over other colonies,” said Jamie Ellis, UF/IFAS professor.

“We are working to ensure these bees do not make their way to the United States because in most cases, when these bees take over a colony, the colony is doomed.”

Genetic studies can be used to understand “why the way things are” for an organism. In this case, researchers sought to understand what genetic traits contribute to the appearance of these bees and their behavior. Using data collected from South African bees from a previous USDA Animal and Plant Health Inspection Service funded study in 2013 and 2014, scientists sought to understand what genes are responsible for the physical characteristics of these subspecies.

“We found really interesting variations in the genes of these bees that can help explain why they look and behave differently,” said Laura Patterson Rosa, UF/IFAS graduate student and co-lead author of the study. “There are a lot of implications to what we found. We have not yet been able to verify these new discoveries in additional populations, but if our findings stand the

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test of time, it could partially explain why we see behavioral changes, why they do not acknowledge the existence of queens of other subspecies and why they can clone themselves when other bees cannot.”

“Color phenotype is an important aspect to beekeeping management,” said Ellis. “It can help beekeepers know what type of honey bee they have.”

Cape bees are significantly darker than the Africanized bees. This dark coloring could be genetically correlated to their cloning and colony takeover behavior.

“There are potentially over 30 subspecies of honey bees. We investigated only two in the published study,” said Ellis. “Does this finding hold true for the other dark colored honey bee subspecies? It would be interesting to look for these mutations across all western honey bee subspecies to determine if this is the case.”

Curiosity about traits, characteristics and color and how they impact behavior persists as researchers hope to use these findings for future research.

Special thanks to supporters of this research including USDA APHIS and the Florida Department of Agriculture and Consumer Services through the guidance of the Honey Bee Technical Council.

<https://blogs.ifas.ufl.edu/news/2022/01/18/bee-appearance-and-behavior-may-be-related-genetic-study-reveals/>

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## Bees: Air pollution prevents pollinating insects from finding flowers

21 January 2022



Air pollution is causing problems for insects by preventing them from sniffing out the crops and wildflowers that depend on them, new research suggests.

Insects, like [bees](#) and butterflies, pollinate plants when they go from flower to flower gathering pollen, the process is vital to help crops and native wild flowers reproduce.

But a new study shows visits to flowers by pollinators were more than 80 per cent lower where pollution was present.

Scientists from the University of Reading, the UK Centre for Ecology & Hydrology, and the University of Birmingham believe the pollution interferes with the insects ability to sniff out flowers.

The researchers found that there were up to 70% fewer pollinators (insects), up to 90% fewer

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flower visits and an overall pollination reduction of up to 31% in test plants when pollution, including diesel exhaust, was present.

In the study, the researchers used a device which released this type of pollution into an open field.

The team used amounts of pollution well below what US law says is safe for the environment.

They then observed the effects this pollution had on the pollination of black mustard plants over the course of two summer seasons.

The team then observed the impact this level of air pollution had on the plants.

A past study by Reading University scientists has also shown that diesel fumes can change how flowers smell.

This new study suggests that pollution could contribute to the ongoing decrease in pollinating insects, by making it harder for them to find their food - pollen and nectar.

Researchers says the study shows how much food production and the natural environment can be affected by pollution.

<https://www.bbc.co.uk/newsround/60070824.amp>

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## **Honey bees and their honey could be a big help in solving police cases**

by John Hollis, [George Mason University](#)

January 20, 2022

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An unlikely collaboration between George Mason University's Honey Bee Initiative and the new outdoor Forensic Science Research and Training Laboratory could yield critical advances in forensic science.

Mason teams from a number of different fields are working in unison at the Science and Technology Campus in Manassas, Virginia, on an ambitious project to see if the [honey](#) produced by [bees](#) after feeding on flowers can help them better locate missing persons.

"The focus of forensics is to solve cases," said Mary Ellen O'Toole, the head of the Forensic Science Program within Mason's College of Science and a former FBI profiler. "Outdoor crime scenes have always posed a challenge to investigators, particularly identifying the location of [human remains](#). The bee research will allow us to scientifically demonstrate that identifying bee activity in bee farms or in the wild and analyzing their proteins can help lead investigators to human remains. In this case, the bees are our new partners in crime fighting, and that's amazing [science](#)."

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Proteins in bee honey contain biochemical information about what the bees have fed upon. That information has previously been used to detect the chemical signature of pesticides in honey, allowing observers to deduce what specific types of pesticides were being used within the five-mile radius from the hives that honey bees typically frequent.

Similarly, O'Toole and her team believe that volatile organic compounds (VOCs) of human decomposition might likewise be found in bee honey, allowing authorities to then triangulate where missing human remains might be located. That ability could ultimately help spare grieving families additional extended angst while also saving thousands of hours in the search for a missing person.

"If we can determine what the VOCs are for humans and differentiate that from other animals, we could then use the bees and their honey as sentinels, and, hopefully, find missing persons and solve cases," said Anthony Falsetti, an associate professor of [forensic science](#). Their belief is based on the premise that flowering plants near dead bodies will uptake the VOCs before being fed upon by the bees and ultimately being deposited in their honey.

Alessandra Luchini, an associate professor within Mason's Center for Applied Proteomics and Molecular Medicine (CAPMM), has perfected a method to extract proteins from the honey. She and Lance Liotta, a University Professor and CAPMM co-founder and co-director, have been involved with the project from the outset, following the idea's origins at one of the monthly research meetings with the Forensic Science Program.

Honey bees are very specific in the kinds of the flowers to which they're attracted. Doni Nolan, Mason's Greenhouse and Gardens sustainability program manager from the School of Integrative Studies within the College of Humanities and Social Sciences, applied her expertise to the project, choosing the right flowers to plant within the specific one-acre section of the newly opened Forensic Science Research and Training Laboratory that will house the remains of human donors in a heavily wooded area. The honey bee hive on the SciTech Campus is located several hundred yards away from the Forensic Science Research and Training Laboratory.

In November, students and researchers planted several different species of plants, which bear highly scented white and yellow blossoms, near the spots where the human remains will soon

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be displayed. Additional plants native to this area will be planted in the spring before the first honey samples are examined, Nolan said.

"You're trying to see if the honey and the bees can help us find a body and solve a homicide," said Nolan, who has a biology degree from Mason and is working on a Ph.D. in biosciences.

The five-acre, Forensic Science Research and Training Laboratory opened in early 2021, making Mason just the eighth location in the world capable of performing transformative outdoor research in forensic science using human donors and the only one in the Mid-Atlantic region.

Donation of human remains to the research facility will come through the Virginia State Anatomical Program (VSAP), which is a part of the Virginia Department of Health. Go here to learn more about donating your body to science.

Mason also entered a partnership with FARO Technologies, Inc. that resulted in the world's first FARO-certified forensic laboratory.

In addition to those in the Forensic Science Program, the multidisciplinary project also includes the caretakers of the honey bees, as well as researchers and students from CAPMM, as well as from the Department of Environmental Science and Policy within the College of Science and Office of Sustainability, all of whom helped select the plants for the research design.

<https://phys.org/news/2022-01-honey-bees-big-police-cases.html>



**PennState**

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# Entomologists to study how climate change may influence pollinator stressors

January 17, 2022



UNIVERSITY PARK, Pa. — A Penn State-led team of researchers will use a newly awarded \$682,000 grant from the U.S. Department of Agriculture's National Institute of Food and Agriculture to examine how climate change may influence and interact with various stressors that affect the health of pollinators.

The funding is part of USDA-NIFA's Agriculture and Food Research Initiative.

The project will employ a novel, integrative approach to understand how temperature variation, pesticides and pathogens interact to influence the fitness and survival of crop pollinators, according to team leader Margarita López-Urbe, Lorenzo L. Langstroth Early Career Professor and assistant professor of [entomology](#) in Penn State's [College of Agricultural Sciences](#).

López-Urbe pointed out that global warming is impacting biological processes of organisms at both individual and population levels, with profound effects on species interactions and ecological function.

"Bees play a critical role as ecosystem service providers, facilitating the reproduction of wild plants and crops, but their populations are in decline," she said. "Multiple interacting stressors, such as pathogens and pesticides, have been linked to bee declines, but we don't know how global warming modulates effects of these stressors to impact wild and managed pollinator health."

López-Urbe noted that the research will include rigorous laboratory and field experiments in physiology, toxicology and disease ecology to determine how temperature variation, pesticides and pathogens interact to mediate the health and survival of three critical and representative

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bee pollinators of agroecosystems in North America: squash bees (wild solitary), bumble bees (wild social) and honey bees (managed social).

The team will build species distribution models that incorporate data on pesticide exposure, disease pressure and microclimatic conditions, explained project co-director Rudolf Schilder, associate professor of entomology and biology, Penn State. "Our combined lab, field and modeling approach will allow us to identify key stressors in different habitats and to develop recommendations for mitigation measures to enhance pollinator health," he said.

López-Urbe added that the study's findings will address a current knowledge gap about how multiple stressors impact pollinator health in agroecosystems that are critical to the food supply.

The research team also includes co-project director Shalene Jha, associate professor of integrative biology, University of Texas at Austin.

<https://www.psu.edu/news/agricultural-sciences/story/entomologists-study-how-climate-change-may-influence-pollinator/>

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Hello Honey Industry Partners!

We would appreciate your assistance spreading the word on our continuing research project. We are collecting samples of citrus blossom honey from locations in North America. There is a sample collection form included (download here: [https://803a53c6-072b-4f8f-960b-bf8520169c2b.usfiles.com/ugd/803a53\\_0bd8b373e75d4d7f98e8bb7e67f97fbb.pdf](https://803a53c6-072b-4f8f-960b-bf8520169c2b.usfiles.com/ugd/803a53_0bd8b373e75d4d7f98e8bb7e67f97fbb.pdf) ). We are requesting 118 mL/4 oz samples. Senders are not responsible for costs related to testing. These samples will be collected by QSI America and the testing will be used to support a

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future identity standard for citrus blossom honey.

Timing is a bit urgent to obtain samples this season. The sooner you are able to share this opportunity with your constituents, the better this project will be. Thank you for your support!

The USP Honey Expert Panel On behalf of  
Norberto Garcia, Chair and  
Gina Clapper, Senior Scientific Liaison with FCC and US Pharmacopeia

Please contact Gina with any questions or comments ([gina.clapper@usp.org](mailto:gina.clapper@usp.org))



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281-900-9740

Or donate on our secure website: <https://www.ahpanet.com/donations-1>

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## AHPA App

As AHPA continues to work on behalf of all beekeepers, one of our initiatives is advocating with the FDA in Washington D.C. to update honey labeling guidelines. As part of this effort, we need your help to collect pictures of honey labels from around the United States. Our goal is primarily to find honey that is mislabeled according to current FDA guidelines. Secondly, we need examples of any labels which misrepresent country of origin or are purposefully confusing to consumers so that we can advocate for positive changes and updates.

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Search the App Store or Google Play for "AHPA app". We need to collect as many pictures from honey on the store shelf as possible. Please take a few minutes to help collect this data.

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The materials and information included in this electronic newsletter are provided as a service to you and do not reflect endorsement by the American Honey Producers Association (AHPA). The content and opinions expressed within the newsletter are those of the authors and are not necessarily shared by AHPA. AHPA is not responsible for the accuracy of information provided from outside sources.