



Journal of the Eastern Apicultural Society of North America, Inc.

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Master Beekeepers

INTERVIEW WITH DAVE
AND DORINDA PRIEBE

EAS Research Funding

2024 PROPOSALS FUNDED

Join us in Maryland!

INVITATION TO THE EAS 2024
CONFERENCE

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THE EAS JOURNAL, SPRING 2024

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WELCOME, From the Desk of the Chair

I hope you and your bees are all well and happy. Spring has begun here in New Jersey - the Maples and Hellebores are blooming, and my bees are flying most days. The 2024 planning committee has been preparing for the conference and we have spent many hours of meetings about the programs, the rooms, the food, the trips, the housing and so many other details. I hope you will all be able to join us this year. It is going to be a great conference.

I have been asked several times, why don't we try to be more like one of the big meetings that are held in January. The simple answer is that we like the way we are! Our core mission is to support Honey Bee Research, certify Master Beekeepers, and hold an educational conference. We continue to meet those goals. EAS is unique, as is each of the other conferences and there is room for all of them.

Most of us value the intimate setting of the EAS conference where we can ask questions and meet the speakers we are seeing and hearing. We appreciate the many different offerings that are given each day, including hands-on apiary experiences. We have a Board of Directors that represent each of our member states and provinces, and we get together quarterly to talk about the direction EAS is headed in. Most importantly we are a Society with common goals. We also have this beautiful Journal to help us stay connected. Please thank our Vice Chair and journal editor Dr. Linda Mizer when you see her for the many long hours she puts in to make the Journal relevant to us.

So please go to the trade shows and conferences. Come back and tell us about speakers you enjoyed, vendors with the latest bee gadgets and bring your new friends to EAS. We can all work together to make EAS a special group of like-minded friends that love bees.

Now for the BIG ASK, please consider making a bid to hold the EAS conference in your state. Talk with your EAS State Director and other leaders in your area. We would like to get bids for the 2026 and 2027 conferences. From experience I can tell you that it will make the beekeeping organizations in your state stronger and promote lasting friendships among your members.

Lou Naylor
 Chair, EAS

Editorial Note

Greetings! I am considering trying something a little different with the pollen section in the journal. I would be interested in receiving and publishing pictures of bees collecting specific colors of pollen. I am thinking blue, red, green, black, pink, cream, yellow, deep yellow and any other color you see. We can all read a list of what forage might be contributing these different colors of pollen, but I think it would be informative to see examples of these colors from across the EAS footprint of states and provinces regardless of season they are seen in, since the season might vary greatly from one region to another.

I would encourage you to submit your high-resolution images noting the plant, state, and time of year the image was made. Please include the name of the photographer. I look forward to receiving these images and trying to put together a pallet of different pollen colors!

Linda Mizer
 Vice-Chair, EAS
 Editor, EAS Journal

WELCOME, From the Desk of the President



Welcome to beautiful and historic Maryland.

Maryland beekeepers are ready and excited to welcome the annual EAS Short Course and Conference, August 5-9, after a 24-year absence. Held at the beautiful Turf Valley Resort, meetings and classes are under one roof and the apiary is right outside the back door. The outstanding hotel accommodations are booking quickly and we have an exciting and packed program.

The Short Course has an ambitious schedule and introduces the "Deep Dive". This new approach devotes three hours to a single subject, for a thorough delve into one of four topics. Read further on these topics in this Journal. There will be Beginning, Intermediate and Advanced track classes, as well as Practical Beekeeping and Microscopy tracks.

The Conference offers the latest beekeeping knowledge on bee behavior, viruses, native bees and more. There will be various workshops focused on increasing, improving and perfecting beekeeping skills, including beeswax crafts. EAS Master Beekeepers will be teaching, meeting and testing new aspirants as well.

Maryland may not be a big beekeeping state, but we are enthusiastic about beekeeping! We feel privileged to have significant bee research labs in our backyard, the Honey Bee Epidemiology Lab at the University of Maryland and the USDA Beltsville Bee Lab. We have been able to schedule tours to the Beltsville Bee Lab on Thursday, August 8. Don't miss this rare opportunity!

If you are an American history buff, Maryland has some must see sights. Do not miss the tour to historic Fort McHenry, home of the "Star Spangled Banner". If you are a fan of the railroads, you know that America's first railroad ran from Baltimore to Ellicott City. Catch the tour of the B&O Railroad Museum and see the "first mile" of railroad in America. Or, drive to nearby old downtown Ellicott City and visit the oldest railroad depot in America, the B&O Ellicott City Station Museum. Travel one hour west and visit the Antietam National Battlefield, our "bloodiest day in American history".

The great Maryland outdoors offers the Atlantic Ocean beaches, sailing on the Chesapeake Bay, hiking in the Catoctin Mountains (home of Camp David), and fossil hunting at Calvert Cliffs. Old downtown Ellicott City (just a few miles east), Annapolis, our state capital (not Baltimore) and home of the US Naval Academy, and Frederick, home of Francis Scott Key, are charming towns with excellent restaurants, great history and many unique stores. Oh, there is one other interesting town nearby. Maybe you've heard of Washington, DC., where the museums are free. It's on land ceded by Maryland, so we take some credit for it.

So, please keep your EAS membership up-to-date. You don't want to miss the 2024 EAS Short Course and Conference. We can't wait to see you there!

David Morris

David Morris
EAS President



MASTER BEEKEEPERS

An Interview with Dorinda and Dave Priebe, EAS Master Beekeepers

Submitted by Lisa Marie Ghezzi, Easton, Maryland; EAS Certified Master Beekeeper and member of the EAS Field Exam Committee; county delegate, Maryland State Beekeepers Association; state delegate and board member, American Beekeeping Federation; and farmer, Maxmore Creek Farm LLC.

I've always been intrigued by Dorinda and Dave Priebe. They're both quite serious and demonstrate exceptional dedication and excellence in their actions and words. Interviewing them allowed me the opportunity to observe more closely many things that drive them. What I had seen peripherally was reinforced by new, refreshing stories about their beekeeping experiences. Individually and as a couple, they serve as inspirational role models. As beekeepers, they purposefully lead by example of learned approaches, evolving techniques, and well-honed skills.

My observation is that you are both very passionate about beekeeping. Please share with us a little about your story of becoming beekeepers and the turning point in your life when you knew you committed to beekeeping as a serious, long-term avocation.

Dorinda: I always knew that I'd keep bees. My grandfather kept bees when I was little, until he died when I was 10. Every year when the Burpee Seed catalog arrived, I would look at the single hive set-up they offered. I knew someday I would have bees of my own. Our daughter was dating a young man, whose family kept bees. He encouraged us and offered to help us get started. Then Dave surprised me with the sweetest Valentine's Day gift ever – on February 14, 2003 we began bee school together and started with two hives. By our sixth year we realized that in spite of doing everything we were taught to do we did not know why our bees lived or died. Our knowledge just

wasn't sufficient. It was in 2009 that Dave finally suggested we both study for the EAS Master Beekeeper exam.

Dave: Dorinda had always showed interest in bees; I knew nothing about beekeeping. We signed up for a local bee school, bought two NUCs of Buckfast bees and began managing the colonies. One of my first experiences was getting stung between my eyes, which wasn't much fun. After co-managing for a period of time it became clear that it was best to have one apiary manager; we chose Dorinda. Co-management decision making is not efficient and often conflicting. Once we came to this realization we knew we were on the right track. As a life-time dental hygienist, Dorinda's skills in carefully observing and recording patient's conditions directly applied to beekeeping; the bees became her patients, and her approach to her work easily transferred and worked with beekeeping management.

You are one of few couples I know that that are beekeepers, let alone both EAS Certified Master Beekeepers! I am so curious how you work your bees? Please tell us a little more about your management style?

Dave: As we just described, we operate with one apiary manager to manage the entire apiary colony by colony. This has led us to a unique management style – one decision maker, with discussions and consensus, allowing for the discovery and development of our

DORINDA'S SKILLS IN CAREFULLY OBSERVING AND RECORDING PATIENT'S CONDITIONS DIRECTLY APPLIED TO BEEKEEPING; THE BEES BECAME HER PATIENTS, AND HER APPROACH TO HER WORK EASILY TRANSFERRED AND WORKED WITH BEEKEEPING MANAGEMENT.

management approach for colony configurations, feeding, inspection protocols, swarm prevention/apiary increase and treatments. All the colonies are "ours". We do inspections together when we can, working each colony together. We're a team and don't know how we would do it any other way. While Dorinda's primary focus is management, mine is honey bee

malady identification along with taking care of assembling, repairing and fabricating woodenware. Most recently I have been making the original style Betterbee® screened bottom boards no longer available for purchase.

I know your faith is front and center in all that you do. Please share with us how your faith guides your work with God's amazing creature, the honey bee.

Dorinda: I knew it was God's plan that I keep honey bees, but I had no idea how far He would take me with it. It was providential. I've had some amazing Eureka moments that I can't explain other than that God comes through every time.

Dave: If you will allow me, let me share an example. Dorinda was invited to speak at a club meeting with mostly beginning beekeepers about necropsy. I was curious how she was going to structure it. She used the framework of four fundamental principles of bee management as described by B. Furgala in *The Hive and Honey Bee* chapter on "Overwintering Productive Colonies":

1. Superior queen stock

Photo at top left: Dave and Dorinda marking an EAS Master Beekeeper Field Exam, Photo by Mark Gingrich. Photos below from left to right: Dorinda engaged in learning at a lecture with fellow Master Beekeepers Jon Zawislak and David Burns, EAS Ithaca 2022, Photo by Mark Gingrich; Announcement of local book reading with Dorinda; Grandson Samuel applying his learning to a NUC.





WHEN YOU OBSERVE YOUR COLONIES' ACTIVITIES AND UNDERSTAND WHAT YOU ARE OBSERVING, THEN YOU NEED TO PLAN AND ACT ON THAT PLAN TO DO WHAT IS NECESSARY TO SUPPORT YOUR BEES.



Photos left to right: Dave engaged with beekeepers, EAS Amherst 2023, Photo by Mark Gingrich; Multiple Queen colony at the height of swarm prevention season; Employing methods of teaching adults at EAS 2023.

2. Colonies well established with good wooden wear, location, etc.
3. Ample food in the right locations
4. Disease free condition

Furgala describes the first four principles, and through our experiences and development of our own best management beekeeping practices, we added a 5th: "assist without detriment" – C. Collison.

Dave: Dorinda's talk fell right into place by rising above how beekeepers typically think about dead outs. She delivered it succinctly by relating colony loss to failure to meet one or more of the fundamental principles (Furgala calls them principles and requirements) through a review of the beekeeper's management and hive notes. This approach allows the beekeeper to discover for themselves what lacked in their management.

Dorinda: I saw this all at once, that Eureka moment, how to approach the topic of necropsy by using this classic framework.

Dave: We both welcomed this "aha" moment with great pleasure, and now use these principles as a framework as our approach to consulting with beekeepers.

You are both extraordinarily committed to beekeeping fundamental principles as demonstrated in your involvement in the EAS Certified Master Beekeeper program. Please share with us what roles you each play in the EAS program?

Dave: As EAS Master Beekeeper Director, I serve as the liaison between the EAS Master Beekeepers and the EAS Board. I have worked to fulfill this role through establishing communication among EAS Master Beekeepers utilizing a listserv to do so – the EAS MB listserv provides email communications amongst the group. I've also participated

as an examiner for both the Field and Oral Exams, as well as on the Certification Committee, helping to verify that candidates meet all requirements for acceptance as candidates to take the exams.

Dorinda: I am finishing my 8th year as EAS Director from New Hampshire; each Director is required to serve on an EAS Committee. I was asked to be the Chairperson of the EAS Oral Exam, thus fulfilling my service. I lead the Oral Exam team and work with other MBs to develop new questions for the exam each year. I work closely with the Oral examiners and through major logistics occurring at the exam site annually. My role has expanded as both the Field and Oral Exam team leaders have become part of the EAS Certification Committee and I help to review EAS MB candidate applications.

I understand Dave has served for some time as New Hampshire's Apiary Inspector (Dept of Agriculture, Markets and Food, Division of Plant Industry, Apiary Inspector). Please share with us a little about your role.

Dave: I am entering my 6th year as a NH Apiary Inspector for New Hampshire Apiary ("NH Apiary"). Division of Plant Industry's mission is to *protect and promote the industry through curtailment of movement of dangerous organisms in commerce*. The apiary inspector role is primarily regulatory. Consultation is also provided. Three pests regulated under NH Apiary Rules include American Foulbrood ("AFB"), Africanized Honey Bees and *Tropilaelaps* spp., as well as supporting the regulation of interstate movement of honey bees and used equipment.

As an Apiary Inspector, you play an important role in addressing some of the major diseases, pests and education in your state and supporting NH Apiary Rules. Some say, it is not "if" *Tropilaelaps* enters the US, but when. What do you think and what concerns

do you have about the impact *Tropilaelaps* may have if/when it arrives in the US?

Dave: I'm not overly concerned right now for North America. We know *Tropilaelaps* is moving and that eventually mankind will move it into the US. But I am uncertain if *Tropilaelaps* will be a major issue in North America. My current understanding is *Tropilaelaps* cannot survive during broodless periods; however, the biology of *Tropilaelaps* is an emerging science. *Tropilaelaps* is a regulated pest in NH and I must know how to detect and abate it.

Dorinda, I understand you were a dental hygienist prior to beekeeping. How has this influenced your beekeeping practices?

Dorinda: I actively practiced as a clinical dental hygienist until 2020; over the last 3 years I have been a travel practitioner where I worked in Maine. My career required rigorous discipline and balancing care for my patients. Working this way has honed my observation and recording skills. A career as a dental hygienist is both an art and a science; I see beekeeping as an art and science as well. A fundamental question in beekeeping is "What did you see". When you observe your colonies' activities and understand what you are observing, then you need to plan and act on that plan to do what is necessary to support your bees.

Dorinda, what do you think about the newly introduced AFB "vaccination"? How do you think this may benefit beekeepers and colonies?

Dorinda: I'm involved in a queen-rearing group that really wanted to be involved in the testing to understand how

"Trans-generational Immune Priming" works, but we were unable to obtain the grant. Even if we inoculate queens, we cannot be sure that in a supersedure queen event the new queen will impart the same level of protection as the mother queen. Personally, I practice and teach a rigorous hygienic approach – I sanitize everything between working our colonies – my tools, smoker, gloves; I wash my bee suit regularly. I'm a "germ nut".

Dave: If I might add, I am recommending NH approve the use of AFB vaccination for the following reasons: 1) TGIP may occur naturally, 2) the bacterin is denatured (dead) and not infectious, and 3) queens can be shipped into NH even though the purchase and use of the vaccine itself is not approved in NH.

Dorinda, in 2019 you received New Hampshire's "Francis Dodge" Beekeeper of the Year Award. Please share with us a few of the activities this award recognizes and your role in it.

Dorinda: This award came as a complete surprise to me and I was very honored. I'd traveled to Cornell with four other beekeepers to learn about queen rearing; I believe these friends had nominated me addressing some of the award's criteria such as accomplishments in beekeeping, teaching and volunteering. I've been involved in many ways including taking bees into the preschool classrooms, presenting honey bee topics in grade schools, and working with Girl Scouts on the topic of pollen and pollination. I developed and implemented a mini Master Beekeeper Exam for students at our local private Christian High School during their winter term; in addition to classes on bees, we had a smoker contest, the students assembled equipment, extracted honey

and enjoyed a field day in my apiary. The students really enjoyed being so involved in the learning process, and it was a rewarding experience for me personally. Since 2014 I have served as an Artist in Residence to the Sanborn Regional School working with students and their advisors under a grant program. I do my best to say yes when teaching opportunities arise and have tailored many programs to meet the needs of each group.

You both have such full schedules. What interests do you have outside of beekeeping?

Dave: This is my 25th year as a NH Certified Hunter Educator. I love tying flies and fly fishing. I love our dog Birch, especially training her to a high level. I've also been involved as bass singer with an acapella group called The Grace Notes, a ministry through music taken wherever we are called. We have been a group with same musicians for 30+ years.

Dorinda: Beekeeping takes up so much of my time; I really only started keeping colonies for pollination of our organic gardens and fruit trees. I love to sew, cook and take on roles within our community. I started working an educational booth at the Church Street Farmers market which brings our community together right on our church grounds. Music has played an important part in my family all my life. I played with my father in the Strathspey and

Reel Scottish orchestra of NH for 25 years. Dave and I have a lot of activities we are passionate about and constantly dabbling in. I wrote a book in 2020 and have been editing it for publishing since then. We have very little down time, but like it that way.

At the end of the day, what is it about beekeeping that you look forward to most?

Dave: Observing bees at work.

Dorinda: Knowing that I've developed a foundation of knowledge that helps guide me to do the best I can do physically for the bees so that in turn, they're able to make the most of what they do.

In honor of a dear friend, I enjoy asking other people what "Words of Wisdom" can you share with us, and in this case, beekeepers?

Dave: "...learn all you can about honey bee biology..."
Collison

Dorinda: "What did you see?" That's a salute to what I learned the most from Dr. Clarence Collison in a one-day Beekeeping Short Course at Mississippi State.... and the way I teach management: "What did you see?", "What should you do about it?" and "How did that work?"



Dave and Dorinda commending Field Exam candidate, EAS Ithaca 2022. Photo by Mark Gingrich.

NEWS AND UPDATES

2024 EAS Award Winners

Eastern Apiculture Society is proud to recognize those who contribute to the community by administering awards programs.

ROGER A. MORSE OUTSTANDING TEACHING/EXTENSION SERVICE/REGULATORY AWARD

2024 Award Recipient: Dr. Debbie Delaney

Dr. Debbie Delaney is an Associate Professor in the Department of Entomology and Wildlife Ecology at the University of Delaware where she mentors graduate and undergraduate students working on various aspects of pollinator health and productivity. She teaches Insects and Society, Apiculture and Pollination, Ecology and Aquatic Entomology. Dr. Delaney has over 20 years of experience working with pollinators, specifically honey bees and maintains between 25-60 colonies in the teaching apiary at UD's Newark farm. Her research program has four main focal areas: genetic identity and diversity of US honey bees; temporal stability of pollinator populations; best management solutions for creating sustainable managed pollinator populations; and pollinator nutrition and forage mapping.



JAMES I. HAMBLETON MEMORIAL AWARD

2024 Award Recipient: Dr. Margarita López-Uribe

Dr. Margarita López-Uribe is an Associate Professor of Entomology, Lorenzo L. Langstroth Early Career Professor and faculty member of Intercollege Graduate Degree Programs in Ecology and Bioinformatics and Genomics at Penn State University. She will begin a Fulbright fellowship in Colombia this year. Margarita took Mary Ann Frazier's position at Penn State University in 2016, and her meteoric rise only continued from there. She has already amassed over \$8M in competitive grant funding, leading to a flurry of published articles on honey bee biology and pollinator health. Perhaps most notable of these is her NSF CAREER grant, which is a highly competitive and coveted award to early career scientists. This has enabled her to grow her program very rapidly, where she has six active graduate students, having already graduated several others. Dr. López-Uribe's program is diverse as it is productive and with her background in native bee biology and appointment as the Penn State Pollinator Health Extension Specialists, she deftly spans both wild and managed bees in her research and extension work. This includes research programs on pollinator evolution, bee health and disease ecology, beekeeping management, and thermal ecology. Margarita has also been appointed to the NAREEE Pollinator Subcommittee by Secretary of Agriculture, Thomas Vilsack.



2024 EAS Research Grant Winners

ADAM PACHL

The Effects of Geography, Forage Sources and Seasonality on Microbial Communities in Honey Bees. \$10,915

Born and raised in North Dakota, Adam Pachl graduated from the University of North Dakota in 2013 with a Bachelor of Arts in Music and a Bachelor of Science in Fisheries and Wildlife Management. After spending several years working in wildlife disease and soil conservation, he made a career change, taking a job in 2018 as the Plant Industries Technician for the North Dakota Department of Agriculture, where he quickly fell in love with honey bees and the beekeeping industry. Soon after, Adam moved up to the Assistant State Inspector Position, which he has held for the past five years. Adam is pursuing a master's degree in biology, at the University of North Dakota in 2022. This project examines the effects of forage and seasonality on the variability on the gut microbiome. Results from this project will help beekeepers make informed decisions when it comes to colony placement, supplemental feeding decisions, and other management strategies throughout the year.



DR. MICHAEL SIMONE-FINSTROM

Propolis Reduces EFB and Varroa Infestation in Honey Bees Used for Blueberry Pollination. \$10,000

Dr. Michael Simone-Finstrom is a Research Molecular Biologist. His research has focused on individual and social mechanisms of disease resistance, including resin/propolis use, hygienic behavior and genetic diversity. His current work aims to add to this line of research by more fully understanding how these traits work in concert in order to promote them within the beekeeping industry and identify components of viral resistance in honey bees.



R. SHELLEY E. HOOVER

Non-Invasive Evaluation of Honey Bee Queen Quality. \$2,736.62

Dr. Hoover is an Apiculture and Pollination Scientist in the Department of Research and Innovation at the University of Lethbridge, in Lethbridge, Alberta, Canada. Her research focuses on honey bee health and management, queen production and breeding, and nutrition, as well as canola pollination. Previously, she was the head of the Apiculture Program for the Province of Alberta and has held Research Associate positions at the Universities of Canterbury (Christchurch, New Zealand) and British Columbia (Vancouver and Beaverlodge, Canada). She completed her PhD on honey bee worker ovary development, nutrition, and behavior at Simon Fraser University. Dr. Hoover is currently President of the Canadian Association of Professional Apiculturists.



Your Local Club can Fund Important Honeybee Research

Helping to fund honeybee research is one of the core mission elements of the Eastern Apicultural Society. As such we have a Honeybee Research Committee that solicits and vets grant applications, Each year and award \$20,000 in funds to the most deserving of the applicants. (This is recently increased from \$10k per year).

But each year we receive dozens of applications, MANY of which are worth funding! Unfortunately, our EAS funds are limited so we are forced to chose only a few (or one) of the projects for funding each year.

This is where your local club comes in. Local clubs have hundreds of thousands of beekeeper-donated dollars “locked up” in their bank accounts. We would like to encourage your club to use these funds to support important research projects that EAS has vetted but has been unable to fund. By donating your club’s excess cash to the EAS HONEYBEE RESEARCH FUND we will distribute those funds to the deserving applicants

vetted by our research committee. Simply bring this suggestion to a local club meeting and propose an action to fund EAS-approved grant projects. Your treasurer can send your donation directly to EAS at <https://easternapiculturesociety.wildapricot.org/donate> or donate via our website at <https://easternapiculture.org/programs/honey-bee-research/>. We will pass on your club funding directly to the deserving applicants on your behalf!

Funded applicants can be counted on to “thank” donors by presenting a talk on their work via zoom. Imagine how invigorating it will be for your club to have the opportunity to participate in funding important honeybee research work and to learn first-hand how your donated dollars were spent to further our understanding of honey bee issues.

Please contact EAS Past Chair Erin Evans for more details, or if you would like assistance in “making a pitch” to your local bee club to participate.





FEATURED ARTICLES

A Glimpse of Maryland Beekeeping: Birthplace of EAS

Maryland, situated on the East Coast, snuggles into the Appalachian Mountains, slopes gently down the Piedmont region to the Atlantic Coast, and wraps the Chesapeake Bay in its arms. The terrain ranges from warm, sunny sandy Eastern Shore to low mountains in the west. St. Mary's City, established by Lord Calvert in 1634, was the first capital, later moved to Annapolis in 1694. Maryland's state flower is the Black-eyed Susan and the Baltimore Orioles aren't just a ball team, it's our state bird, its orange and black colors resembling the Calvert family colors in the state flag. Following a theme, the black, white, and orange Calico is our state cat. The Blue Crab, you guessed it, is the state crustacean; be sure to have a crab cake or two while you are here. There is even a state dinosaur, *Astrodon johnstoni*, one of the earliest dinosaur finds in the country.

A typical bee year recently has been a rare thing in Maryland. With warmer and shorter winters than experienced a few decades ago, beekeepers can't do everything by the calendar. A typical year begins with hive inspections on warmer days in February, which in the last few years might be 70 degrees! The hives build

up on minor plants until the dandelion and holly blooms, formerly in April, now as early as late March. Swarm season used to be the end of April, now we teach the beginning of April, but as of this writing, at least one swarm has been reported in early March! Such has been our winter this year.

Maryland's main surplus nectar crops come from Black Locust (*Robinia pseudoacacia*), whose sweet smelling, creamy white drooping flower clusters (*racemes*) brighten the roadsides in early April. It produces a very sweet, light-colored honey. This is closely followed, and often overlapped, by Tulip Poplar (*Liriodendron tulipifera*). A member of the Magnolia family, with green petals and an orange streak inside, you have to know what to look for to see the flowers. They are prolific nectar producers, but its reddish honey is rarely seen in local honey shows



anymore. A short break of wildflower nectars is followed by a Basswood flow of both native (*Tilia americana*) and European (*Tilia x europaea*) varieties, in late May to early June. The European variety has been planted along residential and urban roads, and are common in parking lots as well, making this a good nectar source. It, too, is a light honey, but with a tinge of green when held to the light, and a hint of mint on the tongue. Sourwood (*Oxydendrum arboreum*) can be found in mountainous western Maryland. But it is a specialty, near water-white, honey and not seen much on the market, and rarely pure. Of course, changes in elevation in Maryland mean the Eastern Shore and Southern Maryland beekeepers experience these nectar flows a week or two earlier than Central and Western Maryland. By late June the nectar flow comes to a hard stop, unless you have farm crops and pastures nearby. Apples, peaches, melons, beans, strawberries, pumpkins, and other fruits and vegetables are our main crops requiring honey bee pollination.

Inspections in July and August are quick and efficient. The less you bother them, the less they bother you. Late Summer and early fall bring goldenrod and aster as the final surplus to put the bees to bed for the winter. However, the Summer of 2023 was the first year Maryland beekeepers experienced Spotted Lanternfly "honey". Reviews are mixed, perhaps depending on how late the honey crop was harvested and how much Spotted Lanternfly honey was mixed in with the usual crops. We'll learn more about this new "flow" this summer.

The 1840 United States Census was the first to record beehive ownership and the Census data for Maryland reported 1,791 farmers maintained 9,355 hives and an

additional 471 non-farm residents owned 948 hives. By 1860, the Census numbers were 2,207 farmers with 10,848 hives and 584 non-farm residents with 1,269 hives. Beekeeping was not a significant industry.

The honey bee industry had changed significantly between the end of the Civil War and the turn of the century. Patent hives, movable frames, mechanical honey extractors, Italian, Carniolan and Caucasian honey bees replacing the feisty and defensive "black bee", all made beekeeping more attractive. By 1900, the Census reported 5,098 farmers kept 28,013 colonies. Nearly 85% of Maryland honey sold was comb honey.

Beekeeping, the University of Maryland, Apicultural Extension and Apiary Inspection

The Maryland Agricultural College was founded in College Park in 1856 and established as a land-grant college in 1864. Beekeeping was taught using "Quinby's New Beekeeping: The Mysteries of Bee-keeping Explained". The earliest record of the college apiary is from the years 1896-1899. Thomas B. Symons began teaching beekeeping at the college in 1902 as Professor of Entomology and Zoology and became State Entomologist in 1903. The college apiary later may have been taken on as the USDA Bee Lab apiary.

In 1908, "about 100 enthusiastic beekeepers" assembled in Baltimore on December 4, to establish the Maryland State Bee-Keepers' Association (MSBA). The same Prof. Symons of College Park, a prime mover to establish MSBA, was the first Secretary-Treasurer. American Foulbrood was a major concern of many early MSBA meetings and was a major incentive to pass the Apiary Inspection Law in 1916. Prof. Symons, by then, the Director of Extension Services, helped MSBA get the Apiary Inspection Law passed.

Apiary inspections began in 1929 as a duty of the University Extension Apiculturist and continued until 1979 when the duties were transferred to the MD Dept of Agriculture. The newly appointed Inspector, Mr. George Abrams, initially performed inspections on request. Later, as part-time inspectors were hired, this was expanded to apiaries within three miles of an AFB infected apiary. By the late 1940's, AFB infection rates were finally brought down from 16% to under 2%.

In 1955, Mr. Abrams organized the "Tri-State Beekeepers" meeting, at College Park. The meeting was so successful that, at its conclusion, attendees founded the **Eastern Apicultural Society**, with the intention that they meet



Maryland Agricultural College. View of U.S. Department and M. A. C. apiary at the college.



A group of Maryland Beekeepers at the Baltimore Meeting.

annually to promote beekeeping education and scientific research. Thus began this organization. EAS returned to College Park in 1965, led by Dr. Frank Todd. EAS 1990 came to Salisbury State College, led by Ann Harman. EAS 2000 again met at, now named, Salisbury University, led by David Bernard.

Mr. Abrams initiated the effort to bring Apimondia to the United States. The 21st Congress, held in 1967 in College Park saw 1,448 attendees from 48 countries. EAS held no conference, deferring to Apimondia. This has been the only time Apimondia was held in the US. Mr. Abrams untimely death in 1965 meant he did not see the fruits of his labor. The Apimondia President was Mr. James Isaac Hambleton, the research leader at the Beltsville Bee Lab. The EAS Hambleton Award is named in his honor. The current Apimondia President is Dr. Jeff Pettis, retired Beltsville Bee Lab Research Leader, and a resident of Maryland's Eastern Shore.

Following the death of George Abrams, Dr. Al Dietz took the position as Professor of Apiculture, Extension Apiculturist, and Apiary Inspector for two years. Dr. Dewey Caron replaced Al Dietz in 1970 before leaving in 1981 to chair the Entomology Department at the University of Delaware. Dewey is well known to EAS members as a Past EAS Chairman. Extension services then were managed by Lanie Odlum and Ann Harman (former EAS Vice-Chair under Kim Flottum) for several years, until Dr. Gordon Wardell took the post. His departure in 1996 ended apicultural extension in Maryland.

Beekeeping at the University of Maryland was re-established on campus with the arrival of Dr. Dennis van

Englesdorp in 2012. His powerhouse lab established an annual, now semi-annual, honey bee health survey and the Bee Informed Project.

The mid-1990s was the nadir of Maryland beekeeping, with fewer than 1,000 registered beekeepers and 8,000 or fewer colonies; Varroa had hit hard. But Maryland beekeeping has rebounded. Twenty local clubs offer beginning beekeeping classes which sell out every year. MSBA offers advance beekeeping classes each spring and Maryland EAS Master Beekeeper aspirants have an organized online study group which helped six members pass the Master Beekeepers exams in 2023. Maryland beekeeping has rebounded with more than 2,300 *enthusiastic* beekeepers and nearly 19,000 hives.

We hope you feel our enthusiasm for beekeeping and EAS as we welcome you to Maryland.



MSBA members celebrate their 100th anniversary. President, Steve McDaniel, is front row, left. Vice-President, Adele Morris is seated, 2nd row, 6th from left. Photo courtesy of Steve McDaniel.

Honeybee Health Coalition

by Dr. Tammy Horn-Potter

The Honey Bee Health Coalition will be having its spring meeting, in person, at Virginia Tech in Blacksburg, VA, from May 22-24, 2024. In addition to addressing other "hot button" topics concerning beekeeping, EAS representative Tammy Horn Potter would like to work on a best management practice guide focused on spotted lanternfly, specifically how beekeepers can reduce its spread and impact on honey. Other discussions will be continuing the work that Honey Bee Health Coalition does to address varroa mites, including work with potentially new miticides, as well as creating alliances between crops and apiculture.

The Honey Bee Health Coalition 2023 Annual Report can be accessed at www.honeybeehealthcoalition.org and the Nutrition Guide, Jan. 01, 2024. That guide can be accessed at this link: Honey Bee Nutrition Guide - Honey Bee Health Coalition.



ABOUT US

The Honey Bee Health Coalition brings together beekeepers, growers, researchers, government agencies, agribusinesses, conservation groups, manufacturers, and consumer brands to improve the health of honey bees.



Our mission is to collaboratively implement solutions that will help to achieve a healthy population of honey bees and other pollinators in the context of productive agricultural systems and thriving ecosystems.

WHAT WE DO

We create integrated, collaborative approaches to honey bee and pollinator health in agricultural systems:

- We connect diverse sectors and stakeholders on key bee health science, practice, and policy issues
- We develop, distribute, and demonstrate tools, resources and best practices for growers, beekeepers, and agricultural stakeholders
- We catalyze collaboration and commitments toward positive changes for bees

ISSUES WE PRIORITIZE

We focus on the multiple and interrelated stressors on honey bee health:

- We need testing, treatment, and new tools for combatting pests and disease, including varroa
- We need approaches that control crop pests while safeguarding bee health
- We need more and better habitat for honey bees and all pollinators

Honey Bee Health Coalition
ANNUAL REPORT 2023

2023 Highlights

HIVE MANAGEMENT

Goal: Put the best available tools, techniques, and technologies in the hands of beekeepers so they can best manage their hives.



Varroacide Resistance and Testing Team (VRTT)

The VRTT consists of over 30 researchers from 3 countries working on testing orphan compounds to find an effective miticide to kill varroa mites. The cross-sector team with government, academia, and the private sector, has been working for 8 years testing dozens of compounds in the lab and in the field. In 2023, VRTT members secured a **four-year, \$4million grant** from USDA-NIFA's Specialty Crop Research Initiative to advance this research.

8th Edition Tools for Varroa Management Guide

This guide explains practical, effective methods that beekeepers can use to measure varroa infestations in their hives and select appropriate control methods. In 2023, 5,000 print copies of the 8th Edition Tools for Varroa Management Guide were ordered for distribution.

"Hot Topic" webinar

The Honey Bee Health hosted a webinar for beekeepers titled "Tropilaelaps - What you need to know and how you can help" with Dr. Samuel Ramsey of CU-Boulder. The webinar was attended live by 175 participants and the recording is available online at [this link](#).



Honey Bee Health Coalition
ANNUAL REPORT 2023

Notes from the Lab: The Latest Bee Science Distilled

By Scott McArt as published in *American Bee Journal*, February, 2024



Scott McArt, an Assistant Professor of Pollinator Health, helps run the Dyce Lab for Honey Bee Studies at Cornell University in Ithaca, New York. He is particularly interested in scientific research that can inform management decisions by beekeepers, growers and the public.

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 Pollinator Network: pollinator.cals.cornell.edu
 Facebook: facebook.com/dycelab | Twitter: @McArtLab

Pesticides are currently harming bees across Europe

In last month's column I described how the current pesticide risk assessment process for pollinators is inadequate in the United States, Europe, and other areas. I used the word "inadequate" because we know that pesticides are currently contributing to annual honey bee colony losses and declines of wild pollinators.

In this month's column I'm going to highlight a paper that connects the dots between the inadequate pesticide risk assessment process overseen by the European Food Safety Authority (EFSA) and negative impacts on bumble bees across Europe.

Since ABJ is an American magazine and most readers live in America,

it's worth noting that the EFSA has a more pollinator-friendly pesticide risk assessment process than its equivalent in the USA, which is overseen by the Environmental Protection Agency (EPA). So, if you're an American reading this article and wondering what the results of a similar study conducted in the USA might reveal, please keep in mind that as of 2016 there were 72 pesticides approved for outdoor agricultural use in the USA that were banned or in the process of being banned in the European Union (EU) due to unacceptable risk to humans and wildlife. Of the 1.2 billion pounds of pesticides used in USA agriculture in 2016, roughly 27% were of

pesticides banned in the EU (Donley, 2019). That includes neonicotinoid insecticides, which were banned from use on pollinator-attractive outdoor crops in the EU in 2013, then fully banned from all outdoor agricultural use in 2018. Neonicotinoid insecticides are currently the most-used insecticides in the USA.

OK, let's get to it. Are bumble bees in Europe exposed to pesticides in agricultural landscapes? Are high-risk exposures linked to reduced colony performance? Is it likely that pesticide use is having negative consequences on bee populations in Europe? In other words, how well does the current pesticide risk assessment process



Photos 1 & 2 Sentinel buff-tailed bumble bee colonies (left) were placed at 106 sites across eight European countries to assess how pesticide exposure was related to colony productivity. Sites were located adjacent to an oilseed rape field or an apple orchard and the pollen gathered by foraging bees (right) was collected for pesticide residue analyses in the lab.



Photos 3 & 4 Buff-tailed bumble bee colony performance was tracked by weighing the colonies before and after focal crop bloom (left) and by counting all bees and brood (right) at the termination of bloom.

protect pollinators in Europe? These are the topics for the seventy-second *Notes from the Lab*, where I summarize "Pesticide use negatively affects bumble bees across European landscapes," written by Charlie Nicholson & Jessica Knapp and colleagues and published in the journal *Nature* [2023].

The paper by Nicholson & Knapp and colleagues summarizes one study from a broader project called PoshBee (see: <https://poshbee.eu>). PoshBee brought together 42 partners across Europe, including seven beekeeping associations, eight farming organizations, four companies, and 23 academic/government research organizations. A very impressive group to tackle the issue of pesticide risk to pollinators!

While the scope of PoshBee was ambitious and had an impact well beyond the individual study summarized here, even this study was impressively ambitious. In total, the authors monitored 316 buff-tailed bumble bee colonies at 106 sites across eight European countries (see Photos 1 & 2 and Figure 1, panel a).

At each site, which was located adjacent to an oilseed rape field or an apple orchard, bumble bee colony performance was tracked by weighing the colonies before, during, and after focal crop bloom (see Photo 3) and by counting all bees and brood at the termination of bloom (see Photo 4). These colony performance metrics were assessed for their relationship to pesticide residues in the pollen collected by the bees. Specifically, at the termination of bloom at each site, colonies were harvested and the stored pollen (analogous to bee bread in honey bee colonies) was collected

and pooled for each site, sent to the lab, and screened for residues of 267 pesticides. A subsample of the pollen was also analyzed for palynological identity to understand which plants the pollen came from.

So, what did they find? Were the bees exposed to pesticides? Yes, the pollen collected by bees contained eight pesticides, on average. Most pollen samples contained at least one pesticide and the most-contaminated sample contained 27 pesticides.

For readers in the USA who are wondering if eight pesticides per pollen sample is a lot, here's some context. Pollen collected by honey bees during commercial apple pollination in New York contained 17 pesticides, on average (McArt et al., 2017) and pollen collected by bumble bees and honey bees during blueberry pollination in Michigan contained an average of 18 and 35 pesticides, respectively (Graham et al., 2021). So, compared to pesticide exposure during crop pollination in the USA, the average of eight pesticides per pollen sample from this European study is actually quite low.

Were there any high-risk exposures? Yes. While the majority of pesticide residues were fungicides, which are relatively non-toxic to bees, there were eight insecticides detected, sometimes at troubling levels. The oxadiazine insecticide indoxacarb was found in 16% of pollen samples at a mean concentration of 1,310 parts per billion (ppb) and a maximum of 3,380 ppb. To put that in perspective, the LD₅₀ of indoxacarb for an average-weight honey bee worker is 1,550 ppb. Indoxacarb was the most-risky pesticide detected, but two other in-

secticides contributed substantially to risk — the organophosphate chlorpyrifos and the spinosyn insecticide spinosad. Interestingly, 8% of pollen samples also contained the EU-banned neonicotinoid insecticide imidacloprid, highlighting either exposure from non-agricultural uses, contamination from greenhouses (e.g., Herbertsson et al., 2021), environmental persistence in agricultural areas, illegal agricultural use, or exposure from "emergency authorizations" which have been granted in several EU countries (e.g., EFSA, 2021).

Was pesticide risk related to reduced colony performance? Yes. As can be seen in Figure 1, panel b, there was a negative relationship between pesticide risk (i.e., toxicity-weighted pesticide concentrations in each pollen sample) and productivity of colonies. A nearly identical negative relationship can be seen between pesticide risk and colony weight gain (see Figure 1, panel d). In panel c, we see that these negative relationships occurred in apple but not oilseed rape. If you squint, you can also see that the yellow points in panel c are further to the left than the green points; this means there were fewer harmful pesticide exposures during oilseed rape pollination compared to apple pollination, which may partially explain the stronger trends in apple.

Well, this is troubling. Do the results from this study mean that pesticides are currently having a negative impact on wild bee populations in Europe? Very likely. As with anything in science, it's impossible to prove that something is true. That's just not how

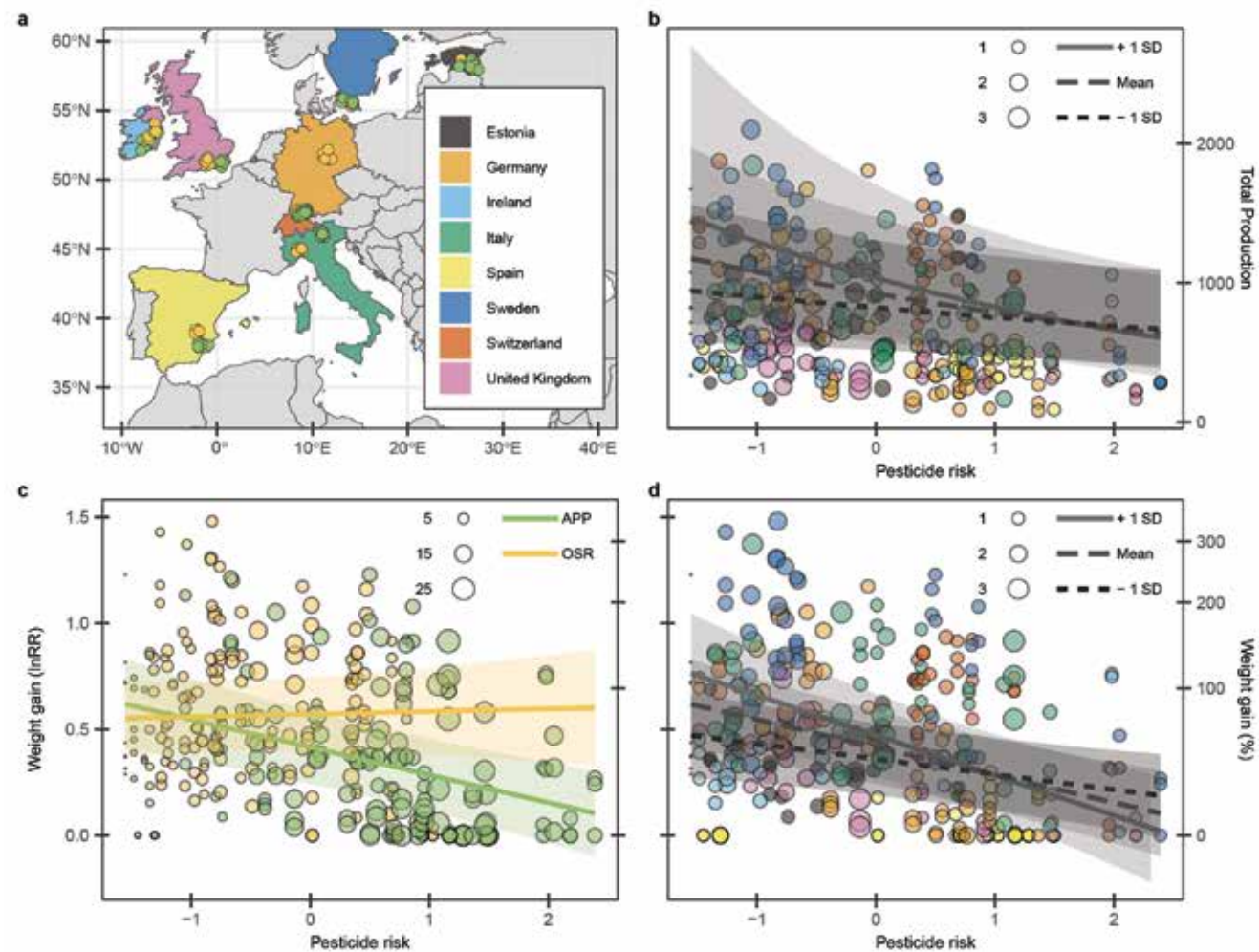


Figure 1 (a) Buff-tailed bumble bee (*B. terrestris* L.) colonies ($n = 316$) were deployed adjacent to apple (APP, green points) and oilseed rape (OSR, yellow points) across eight European countries. (b) Colony production (total number of produced bees estimated by the sum of closed and enclosed cocoons) declined with pesticide risk (log-transformed and centered toxicity-weighted pesticide concentrations) in pollen stores. (c,d) Colony weight gain and percentage change also declined with pesticide risk (note double and shared y axes). Focal crop and landscape context modified these effects, with declines at apple (c; green line) though not at oilseed rape sites (c; yellow line) and in landscapes with more cropland (b,d; solid line +1s.d. proportion of cropland). Point colors in b and d correspond to country colors in a and are scaled in size by the factor by which the mixture of compounds in a sample is riskier than the single most risky compound. Points in c are scaled by the number of pesticide compounds quantified in a sample. Shaded areas around the best-fit lines represent the regression 95% CI.

science works. But there are at least three reasons why the results from this study paint an ominous picture for wild bee populations.

First, bumble bee colony weight gain is tightly linked with fitness, including the production of new queens and males. So, the negative relationship between pesticide risk and weight gain means that pesticides are likely having an impact on bumble bee reproduction, which is a key factor that shapes population change.

Second, the authors actually measured new queen production in the sentinel colonies, which declined with increasing pesticide risk. This means it's not just strong inference that implies population change, the data directly suggest this is true.

Third, bumble bees are social and, like social honey bees, possess life-history and social detoxification strategies known to buffer the impact of pesticides. These strategies do not exist for solitary bees, which comprise the vast majority of the ~20,000 species of bees on earth and also happen to be highly important crop pollinators. This means the implications of the authors' results for solitary bees are likely even more concerning than for social bees like bumble bees and honey bees.

What's the take-home message? Well, a key take-home from last month's column was that post-approval monitoring of pesticide impacts on pollinators is not currently part of the risk assessment process

overseen by the EFSA, EPA, or other regulatory agencies. The study highlighted here is a post-approval monitoring study, conducted by independent researchers because neither regulatory agencies or the producers of pesticides (i.e., the pesticide industry) conduct such studies. And it shows very clearly that pollinators are currently being harmed by pesticide exposure in the real world.

Folks, that's the take-home. In other words, here is very strong evidence that the regulatory process overseen by the EFSA is not sufficiently protective in limiting the collateral environmental damage of agricultural pesticide use. Now, the question is, will anything be done to better protect pollinators in the future?

Until next time, bee well and do good work.

Scott McArt

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UPCOMING CONFERENCE

Welcome to Ellicott City, Maryland!

Welcome to Ellicott City, Maryland, and the Turf Valley Resort for EAS August 5-9, 2024. The resort offers a 1,000-acre campus in central Maryland, the ultimate peaceful destination for this national bee meeting. A great place to relax, catchup with old friends, meet new beekeepers, learn about the latest advances in beekeeping, and speak with vendors who have traveled from all over the USA to share their latest honey bee technology, tools, books and products.

Speakers will include Dr. Jeff Pettis, Dr. Michelle Flenniken, Dr. Elizabeth Capaldi and many more. The Short Course will include tracks focused on beginners, intermediates and advanced beekeepers; it will include a two-hour honey tasting experience to really appreciate and describe the many flavors and aromas of honey. A live apiary will house more than thirty active hives for hands-on learning. Multiple wet labs will be available for learning microscopy, candle making, honey judging, traditional Ukrainian egg dyeing and there will be a honey exchange available for anyone who is interested in exchanging a jar of his/her own honey, for another beekeeper's honey.

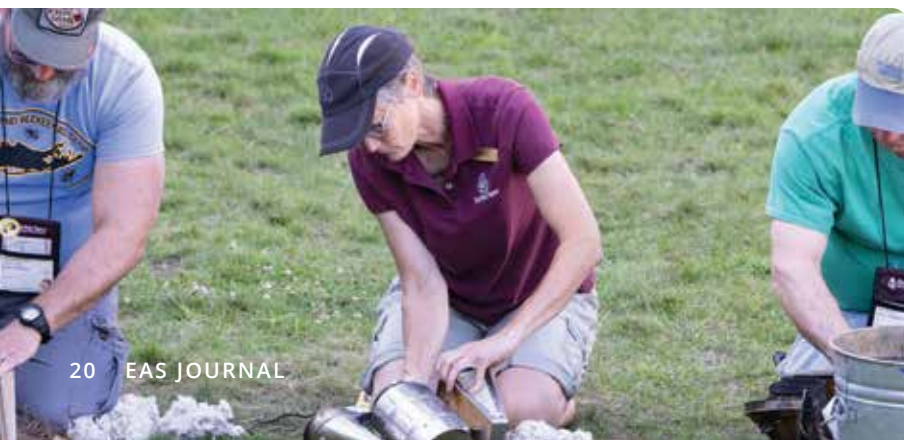
Spouses are welcome. There will be off-campus activities arranged and the local town of Ellicott City is a phenomenal place for foodies with many different ethnic and 5-star restaurants to try. Visitors can wander through the many unique stores in Old Ellicott City and it's a great place for antique shopping. Special events at the conference will include live and silent auctions. Please take time before the auctions to see the impressive painted hives in-person and other amazing auction items.

Sunday night will include a welcome reception. Monday night there will be dine-around-town. Tuesday night will be a picnic and pig roast at a local pick-your-own farm; berries and peaches are expected to be in season; Wednesday night there will be a BBQ featuring the Bee Olympics. Thursday night will be hosted in the Grand Ballroom with a live auction and Friday night will be the Awards Dinner and Banquet; nonmember spouses are welcome to attend these dinners as well.

EAS welcomes, and is designed for, beekeepers of all ranges of beekeeping experience, from very beginners to those who have had bees for over fifty years and even those who have never had bees, never will have bees but want to know more about bees. Perhaps the best part of the conference is meeting beekeepers from all parts of the country.

There will be a vendor hall with over 35 vendors and pop-ups; please schedule time to visit and support the vendors. Some vendors will be available all week while others come for one day only. The EAS 2024 schedule will tell you who is available and when.

We are going to have a fabulous time and we hope that you will join us. To find out more information, please visit the EAS website at easternapiculture.org/conference/eas-2024



Getting Here

Driving Directions to EAS 2024 at the Turf Valley Resort

FROM THE WEST

From I-70 East, take exit 82 onto US-40 East. Proceed on 40 East for 1.8 mile, then turn left onto Turf Valley Rd. The resort will be on your left.

FROM THE SOUTH

From I-95 North, take exit 38B to MD Rte 32 West. Stay in the right lane and take exit 16A onto US-29 North. Take exit 24B onto US-40 West. After 4.6 miles turn right onto Turf Valley Rd and the resort will be on your left.

FROM THE NORTH (VIA I-695)

From 695, take exit 16A onto I-70 West. Take exit 83 and turn left onto Marriottsville Rd. In 1.5 mile, turn left onto Resort Rd and then make a right onto Club Rd.

If you bring your RV to EAS 2024 be advised there is no RV camping or RV parking at the Turf Valley Resort.

Transportation From/To BWI Airport

If you need transportation from BWI to EAS 24 a taxi from BWI to Turf Valley Resort will take about 28 minutes and most costs will range between \$50-\$65.

Here are two carriers that will get you to Turf Valley from BWI:

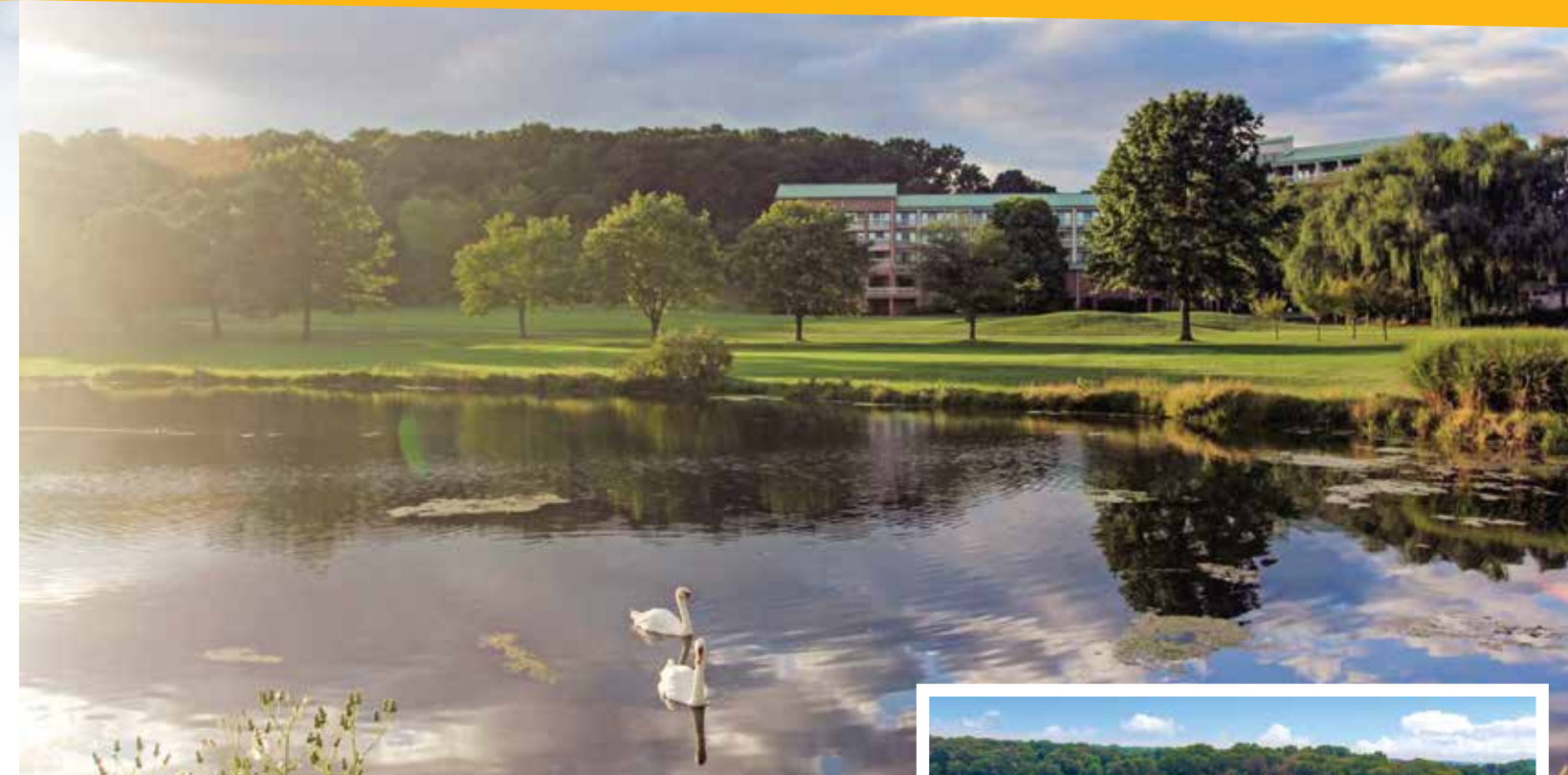
- All Star Taxi- 410-903-3522. 4 ½ stars on Yelp
- Zulk Transportation-443-756-5678. 5 stars on Yelp

EV CHARGING STATION AVAILABILITY

There are no EV charging stations at Turf Valley Resort. The closest public charging station is 2.6 miles from TVR at the Enchanted Forest Shopping Center: 10050 Baltimore National Pike, Ellicott City.

The next closest EV charger 3.6 miles from Turf Valley Resort is at the BGE-Howard County Library: 9421 Frederick Rd., Ellicott City.

You may find the locations of all EV charging stations in Maryland at this MDEV webpage: https://marylandev.org/charging/ev-charging-stations-in-maryland/#/analyze?region=US-MD&country=US&show_map=true



Accommodations

Preferred EAS 2024 Accommodation Site: Turf Valley Resort

Our conference venue, Turf Valley Resort, is the ideal place to stay. Immediate access to conference and social activities with the convenience to return to your room to relax and refresh. Along with great amenities, Turf Valley is also dog-friendly and family-friendly.

- 24-hour fitness center
- Indoor pool, hot tub and sauna
- Seasonal outdoor pool
- 3 -acre athletic field
- Three Har-Tru tennis courts
- Volleyball and pickleball court
- 24-hour essentials pantry
- 24-hour business center
- Daily room service available
- ADA accessible rooms
- Complimentary Wi-Fi
- Pet-friendly hotel
- Complimentary on-site parking

Rooms are still available in various configurations for \$180 a night. Booking rooms is via the link on the Eastern Apicultural Society web page easternapiculture.org/conference/eas-2024 which will lead you to a direct registration pathway. Registration includes a buffet breakfast for a single occupant in each room. Additional occupants may purchase breakfast for an additional fee. Details on the upcoming registration form.

Off Campus Hotel Accommodations

RESIDENCE INN COLUMBIA

This unpretentious, all-suite extended-stay hotel is located at 4950 Beaver Run Ct., Ellicott City, MD 21043 (410.997.7200) – 4 miles from Centennial Park and 6 miles from Benjamin Banneker Historical Park. This facility champions energy efficiency, waste reduction, water conservation and sustainable sourcing.

Ranging from studios to 1- and 2-bedroom suites, the laid-back quarters offer free Wi-Fi, flat-screen TVs and living areas with pull-out sofas, plus kitchens with microwaves, and tea and coffee making facilities.

Complimentary perks include breakfast, parking, and regular evening socials with snacks and drinks. Other amenities consist of a gym, a seasonal outdoor pool and a hot tub, as well as a convenience shop and a patio with a BBQ grill.

The special EAS rate of \$169 per night applies from Sunday, August 4th – Saturday, August 10th. The deadline to book is Sunday, July 7th, 2024.



SONESTA SELECT COLUMBIA HOTEL

The Sonesta Select Columbia Hotel, located at 8910 Stanford Blvd, Columbia, MD 21045 (410.290.0002) offers comfort at an affordable rate. Enjoy access to top attractions such as Columbia Town Center, Baltimore Convention Center, and Merriweather Post Pavilion.

Their spacious guestrooms feature modern décor, cozy bedding, and flat-screen TVs. The on-site restaurant offers delicious meals and drinks. They also provide an indoor pool, a 24-hour business center, including complimentary printing and copying facilities, on-site parking, and free WiFi. They offer a 24-hour fitness center and on-site laundry facilities.

Service animals are welcome and special amenities such as comfy pet beds, bowls, waterproof mats, and treats are provided at check-in. Sonesta Select Columbia is pet friendly and welcomes well-mannered pets, with no breed or weight restrictions. Up to two pets are permitted per suite – a \$75 fee per stay applies with a \$100 deposit.

Their welcoming staff speaks English and Spanish so feel free to reach out for any assistance or guidance during your stay.

The special EAS rate of \$124 per night is from Sunday, August 4th – Saturday, August 10th. The deadline to book is Friday, July 5th, 2024. Please note that meals are available on-premise but are not included in your room rate.



RV Campgrounds Near Turf Valley Resort

PATAPSCO STATE PARK-HOLLOFIELD AREA CAMPGROUND

The Patapsco State Park - Hollowfield Area is less than 7 miles east of the Turf Valley Resort and the drive is approximately 13 minutes.

The maximum allowed RV/Trailer length is 40 feet. The Hollowfield Area has 73 campsites which include 5 Pull Throughs. The sites do not have water. There are 30 Electric Only campsites. 30 Amp power is provided. The campground is pet friendly, has a playground, and provides direct access to wooded trails.

Note: If you approach the campground from the East on US Rte 40, there is a height restriction of 11 feet. Higher rigs must enter the park off of US Rte 40 from the West.



You may make online reservations for the Hollowfield Area at dnr.maryland.gov/publiclands/Pages/central/PatapscoValley/Hollofield/Camping.aspx

RAMBLIN PINES CAMPGROUND

The other nearby campground is Ramblin Pines in Woodbine at 801 Hoods Mill Rd. Ramblin Pines Campground is in a rural area 11 miles West of the Turf Valley Resort with about a 15 minute drive to the resort. There are 200 mostly-shaded sites of which 15 are Pull Throughs. All sites offer full hookup. 20/30/50 Amp sites are available. The maximum RV/trailer length is 70 feet. Ramblin Pines has a camp store, a playground and has catch-and-release fishing on site. In addition to RV sites, Ramblin Pines offers cabin camping as well.

Their Good Sam ratings are: Facility: 9.5, Restrooms: 9.5, Appeal: 10.



To make reservations you may contact the office at 410-795-5161 or go to their webpage at ramblinpinescampground.com



Meals and More

While we are all living it up with bees and bee folk, Turf Valley Resort will keep us well fed!

BREAKFASTS AND LUNCHES

Breakfasts, that are included in the price of each Turf Valley Resort room for one person in each room, will be a daily Buffet Breakfast featuring juices, sparkling water, fruit, yogurts, granola, breakfast pastry, assorted bagels with cream cheese, a breakfast sandwich and coffee and tea. For those staying at Turf Valley Resort through to Saturday morning, the Buffet Breakfast will be available on Saturday Morning. Breakfasts for additional people staying at Turf Valley Resort may be purchased for \$25.

Lunches are included with the price of registration!! Each day there will be a choice of one of three options that will vary day by day. These choices, made at the time of registration, offer a diverse range of flavors and meet various dietary needs.

A **Life-time Member Lunch** with a Pan Asia theme will be available on Thursday featuring egg drop soup, shrimp spring rolls, garden salad, sesame orange chicken, garlic beef with green onion, Gochujan tofu with stir fry vegetables, and vegetable fried rice. Matcha Tea Mousse and Almond will also be served.

DINNERS

Sign-ups for the **Monday night “Dining around Town”** will be at the conference registration desk with a listing of several selected restaurants in the Ellicott area. Team up with your EAS friends for a great evening sharing excellent food and bee stories.

Tuesday evening, we have been invited to an off-site **Picnic Buffet** with all the fixings at Larriland Farms, Woodbine! Bus transport will be provided. Sign-up for this event will be on the upcoming registration form.

There are **three dinners** that will be held at Turf Valley Resort. **Wednesday** is a buffet dinner that has a “three sisters” theme incorporating corn, squash, and beans. There will be a tortilla salad, fresh black bean salad, sauteed vegetables, oven-roasted potatoes, rice, flour tortillas, tortilla shells and fajita wraps with all the fixings. Grilled Ancho chicken with salsa fresca, flank steak carne Asada and southwest-style cod fillet provide additional protein and Spanish Beñeulos and Apple Pie Empanadas will round out the menu.

Thursday buffet dinner is a Chesapeake Feast complete with spinach and arugula salad, tomato and cucumber salad and Cole slaw. This will be followed by roasted red potatoes, petite Maryland crab cakes, fried shrimp, Maryland crispy fried chicken, hush puppies and Eastern Shore Succotash, finished off with Berger Cookies and Apple Pie.

Friday, accompanying the Awards Ceremony, is a plated dinner complete with a classic house salad and choice of one of three entrees: Chicken Chesapeake – a lump crab baked chicken breast; 10 oz. New York Strip with Wild Mushrooms; or Portobello Ravioli. Dessert will be a double-layered strawberry cake.

Details on making choices and reservations for these meals will be on the upcoming registration form.

Dining options in and around Ellicott City

Local dining options abound and can satisfy any palate, budget and time-frame.

Lunch and Dinner

- Alexandra’s, Turf Valley Resort, American Fusion
- Grille 620, Ellicott, City, American, Bar Seafood
- Mad Chef Kitchen & Bar, Ellicott, City, American, Seafood, Contemporary, Gastropub, bar
- Facci Turf Valley, Ellicott, City, Italian, pizza
- Mimi’s Kabob, Ellicott, City, Middle Eastern, Afghan
- Asian Court, Ellicott, City, Asian, Chinese, Sushi
- Hot Pot Hero, Ellicott, City, Asian, Chinese, Japanese
- EC Diner, Ellicott, City, Classic Entrees, Award-Winning Crab Cakes, Creative Pancakes, Breakfast All-Day, Hand-Spun Milkshakes, Deluxe Mimosas, & In-House Bakery
- Shannon’s Saloon, Ellicott, City, American, Irish bar, Brew pub
- Honey Pig, Ellicott, City, Korean BBQ
- The White Oak Tavern, Ellicott, City, American, Brew pub
- Glory Day’s Grill, Ellicott, City, American; bar
- Kelsey’s Restaurant & Irish Pub, Ellicott, City, Irish
- Shin Chon, Ellicott, City, Korean
- Umi Sushi Cafe, Ellicott, City, Japanese
- Syriana Cafe & Restaurant, Ellicott City, Syrian
- Manor Hill Tavern, Ellicott, City, Eclectic; brick oven pizza
- Hot Pot Hero, Woodstock, Classic and contemporary comfort food, Restaurant & Pub
- EC Diner, Woodstock, American, Brew pub
- Shannon’s Saloon, Columbia, American, Wine Bar, Contemporary

Dessert Only

- The Crazy Mason Milkshake Bar, Ellicott, City, Ice cream/Dessert only
- Sugar Plum Tea & Pastry, Ellicott, City, bubble tea and cakes
- Unusual Company, Ellicott, City, Gelato

Drinking Establishments in Old Ellicott City

- Ellicott Distilling Co., Ellicott, City, Sandwiches; dips; charcuterie
- Judge’s Bench, Ellicott, City, Pub food; Burgers etc.
- Black Flag Brewing, Columbia, Pub food; Burgers etc.

Lunch Options

- Georgia Grace Cafe, Ellicott, City, Mediterranean
- La Palapa Grill & Cantina, Ellicott, City, Mexican cuisine
- Little Market Cafe, Ellicott, City, Coffee house & cafe
- Old Mill Cafe, Ellicott, City, Coffee and pastry
- Phoenix Upper Main, Ellicott, City, American
- The Trolley Stop, Ellicott, City, American
- Thai Aroma, Ellicott, City, Thai
- Bagel Bin & Hoagie House, Ellicott, City, Breakfast/lunch



Short Course Tracks

This year's Short course tracks are being taught by a group of experienced and knowledgeable beekeepers, many of them EAS Master Beekeepers. Whether you are just a beginner or more experienced, you will find a presentation that will interest you.

In the beginning track, we are fortunate to have Dr. Deborah Delaney starting us off with a two-part class on basic honey bee biology. The beginners track will end Tuesday with an EAS Certified Master Beekeeper Round Table hosting some of this year's presenters.

The Honey Bee Contributions track will have a two-hour honey-tasting experience led by Suzy Spencer. This is a short introduction to the process of really tasting honey and using terms taken from honey flavor wheels to describe the flavors. Participants will begin to learn to recognize and name the flavors using guided-tastings of one-source honeys accompanied by group discussions. The second half of this workshop will show you how to host a black jar honey contest for your club where only taste is considered. This workshop will require pre-registration, with a small \$10 fee to pay for supplies, and ensure we are in the right-sized room space.

There will be a day of Practical Beekeeping, where we will cover real answers to your beekeeping. This was a requested track based on comments from past EAS conference attendees.

Encouraging Growth in Your Bee Club track will show you how the study group method has helped make Maryland a great place to develop new Master Beekeepers in a collaborative environment. Maureen Jais Mick will talk about her teaching apiary, with real guidelines for how to successfully develop and run one in your own club. These will be great take back for your home clubs

Sustainability, and how to handle our bee businesses will be covered in several tracks at the intermediate and advanced level. Listen to Master Beekeeper Jim Fraser talk to you about contracts and what you need to know. See how your tax filing can affect your bottom line.

Our Native Bee track will talk about the importance of native bees, and how they are different from managed honey bees. Mark Patterson from London, UK, will speak to us about making bee nesting boxes the British way.

Let's not forget our two Maryland practicing medical doctors. Dr. David Golden, one the country's leading sting allergists will talk to you about what you really need to know about bee stings as a beekeeper. Dr. Alan Sokoloff is the chiropractor to several Maryland professional sports teams. He will tell us how to save our backs. Lifting those full honey supers is a delight to the pocketbook, but hard on the body.

Larry Truchon has premiered the Half-day Deep Dives Track. New this year, Monday and Tuesday will feature half-day classes in a 75-seat amphitheater. Monday morning, there will be an EAS Honey Show Judging Class, followed by a Deep Dive into Honey Bee Biology in the afternoon. Tuesday morning will feature a Splits and Nucs Class, followed by Varroa Mite Biology & All Legal Mite Treatments in the afternoon. Whether you have interest in honey show judging, increasing your apiary, learning about each mite treatment to help keep your bees alive, or taking a deep dive into honey bee biology, there is a class for you.

Short Course Workshops

Deep Dive

EAS 2024 will premiere a Half-day Deep Dives Track. New this year, Monday and Tuesday will feature half day classes in a 75-seat amphitheater. Monday morning, there will be an EAS Honey Show Judging Class, followed by a Deep Dive into Honey Bee Biology in the afternoon. Tuesday morning will feature a Splits and Nucs Class, followed by Varroa Mite Biology & All Legal Mite Treatments in the afternoon. Whether you have interest in honey show judging, increasing your apiary, learning about each mite treatment to help keep your bees alive, or taking a deep dive into honey bee biology, there is a class for you.

The Basics of Honey Tasting - I

MONDAY, AUGUST 5

This is a short introduction to the process of really tasting honey and using terms taken from honey flavor wheels to describe the flavors. Participants will begin to learn to recognize and name the flavors using guided-tastings of one-source honeys accompanied by group discussions. Resources for continuing education will be presented.

The Basics of Honey Tasting - II

MONDAY, AUGUST 5

In a "black jar" honey contest, the only criterion for judging is the taste. Normally there are only one or two judges even though judging is very subjective. In this presentation, participants will learn how to have a different type of "black jar" honey contest for a club or other organization that allows for a nearly unlimited number of judges, making it a "people's choice" award and an entertaining activity for a large group of people.

Microscopy Workshop

MONDAY, AUGUST 5

The microscopy workshop will focus on the external and internal anatomy of the honey bee, honey bee health issues and pollen slide preparation. Lectures, open to all, will be provided on Monday, August 5th and cover bee anatomy, pollen and *Nosema sp.* In the laboratory, pre-registration required, the anatomy component will cover the basic body



parts of the honey bee worker and, specimens permitting, comparison to the drone, virgin and mated queen honey bees. Pollen samples will be prepared for examination on glass slides and a pooled bee fecal sample will be examined to assess the relative *Nosema sp.* load in the bees.

Queen Rearing Class

MONDAY AND TUESDAY, AUGUST 5-6

The queen rearing class for EAS 2024 will describe, demonstrate, and allow participants to practice all the steps involved in raising queens. It will focus on using the Doolittle method of grafting, although other methods will be discussed. The class will be broken up into 5 sessions over two consecutive days. It will start with a classroom discussion of cell builders and how to ensure success, followed by a hands-on session in the apiary making up a cell builder for later use. The class will then continue with a combination of classroom and hands-on sessions on grafting. There will be frames of larvae to practice grafting, and some of these grafts will be placed into the previously set up cell builders. Class will also cover topics of setting up mating nucs, placing cells, understanding the queen development timeline, and troubleshooting common problems.

This is intended to be an intermediate to advanced class. The number of participants will be limited to ensure everyone has an opportunity to get as much practice as possible to become comfortable with each step of the process.

Short Course Schedule

SUNDAY, AUGUST 4

Registration: 3:00 - 7:00 pm, Outside Wedgewood Lobby
 Sign up for "Dine Around Town" to be held on Monday p.m.
 Board of Directors Meeting: 5:00 - 7:00 p.m.
 Reception in Terrace on the Green 7:00 -9:00 p.m.

MONDAY, AUGUST 5

MORNING

(Subject to Change)

7:00 - 8:00 a.m.	Zumba with Erin Evans, Waverly Room							
7:00 - 8:30 a.m.	Breakfast Buffet in Grand Ballroom (those registered at Turf Valley Resort)							
7:30 a.m. - 4:00 p.m.	Registration and Honey Exchange Dropoff, outside Wedgewood Lobby							
	MICROSCOPY	BEGINNER	INTERMEDIATE	ADVANCED	VALUING OUR	APIARY	QUEEN	DEEP DIVE
			Increasing your	Bees Do	BEEES AND THEIR		REARING	Half-Day
			Bee Yard	What Bees	CONTRIBUTIONS		(pre-registration	Classes -
				Do, Managing			required)	need to
				Bees				attend
								both
								parts
	Waterford Room	Crystal Room	Tiffany Room	Merriweather Room	Oakdale Room	Teaching Apiary	Terrace on the Green	Amphitheater
8:30 - 9:25 a.m.	Honey Bee Anatomy <i>Dr. Linda Mizer</i>	Honey Bee Biology <i>Dr. Deborah Delaney</i>	Making a New Queen for \$20 <i>Russell Sprangel</i>	Protecting the Beekeeper: Saving your Back <i>Dr. Alan Sokoloff</i>	The Basics of Honey Tasting (pre-registration required) <i>Suzy Spencer</i>	Mark the drones in five hives, one color per hive 100 drones per hive		EAS Honey Show Judging (part 1)
9:25 - 9:35 a.m.	10 min transfer time							15 min. Break
9:35 - 10:30 a.m.	Pollen <i>Christian Adams, Dr. Deborah Delaney's Lab</i>	Biology of the Hive <i>Dr. Deborah Delaney</i>	The Nucleus Colony Honey Producer and Resource Hive <i>Steve Repasky</i>	Swarm Before, During and After <i>Lisa Marie Ghezzi</i>	The Basics of Honey Tasting / Running a Black Jar Contest (continued) (pre-registration required) <i>Suzy Spencer</i>			EAS Honey Show Judging (part 2)
10:30 - 11:00 a.m.	30 Minute Break – Snacks in Vendor Area, Cameo and Wedgewood Ballrooms and Lobbies							
11:00 a.m. - 12:00 p.m.	Nosema <i>Joan Mahoney</i>	Why Beekeeping? What Do I Get from It? <i>Carin Zinter</i>	The Science of Why Making Splits is Important <i>Dr. Nathalie Steinhauer</i>	Apiary and Bee Business Sustainability <i>Dewey Caron</i>	Lotions/potions Products of the Hive <i>Valerie Wampler</i>	3 Ways of Varroa Testing in Real Life Sugar, Alcohol and CO2		
12:15 - 1:15 p.m.	Lunch, Grand Ballroom							

MONDAY, AUGUST 5

AFTERNOON

(Subject to Change)

1:30 - 5:30 p.m.	Microscopy - Laboratory Component - Board Transport to Community College of Baltimore County							
1:30 - 2:30 p.m.	Honey Steward Training, Ellicott Room							
	BEGINNER	INTERMEDIATE	ADVANCED	VALUING OUR	APIARY	QUEEN	DEEP DIVE	
		Improving Your	Enemies of	BEEES AND THEIR	Best Practices in	REARING	Half Day	
		Success	the hive	CONTRIBUTIONS	the Apiary	(pre-registration	Classes	
						required)	-	
							need to	
							attend	
							both	
							parts	
	Oakdale Room	Tiffany Room	Merriweather Room	Crystal Room	Teaching Apiary	Terrace on the Green	Amphitheater	
1:30 - 2:25 p.m.	What's What? Beekeeping Equipment <i>Toni Burnham</i>	Why Did My Hive Die? <i>Dr. Barry Thompson</i>	New Drone-Varroa Research <i>Dr. Zachary Lamas</i>	Rendering Wax From Comb to that Pretty Block <i>Virginia Webb</i>	How to do an Inspection the Master Beekeeper Way <i>John Benham</i>			Honey Bee Biology (part 1) <i>Larry Truchon</i>
2:25 - 2:35 p.m.	10 min transfer time							
2:35 - 3:30 p.m.	What Honey Bees Eat. Why & How They Get It, <i>Valerie Wampler</i>	The MDA Apiary Inspection Service... How Humans and Dogs are Keeping Maryland Honey Bees Healthy <i>Cybil Preston</i>	Small Hive Beetles <i>Dr. Humberto Boncristiani</i>	Wax On Wax Off. Making Award Winning Candles <i>Virginia Webb</i>	How to Light a Smoker and KEEP It LIT <i>Jim Fraser</i>			15 min. Break
3:30 - 4:00 p.m.	30 Minute Break – Snacks in Vendor Area, Cameo and Wedgewood Ballrooms and Lobbies							
4:00 - 5:00 p.m.	Meet and Greet for Master Beekeeper Candidates, Waterford Ballroom							
4:00 - 4:55 p.m.	Inspecting Colonies & Understanding What You See, <i>Mark Gingrich</i>	Plan to Succeed: Making a Personalized Action Plan <i>Kim Mehalick</i>	Wax Moth Life Cycle, Protecting Your Comb <i>Dr. Clyde Strang</i>	Infusing Flavors into Your Honey <i>David Elkner</i>	Inspecting a Top Bar Hive Frame Correctly <i>Allen Storm</i>			Honey Bee Biology (part 2)
5:15 - 6:00 p.m.	Gentle Yoga with Bridgett Wilson, Waverly Room							
6:15 - 9:00 p.m.	Dine Around Town with EAS Hosts – sign up for restaurant choice at registration, outside Wedgewood Lobby							
6:00 - 9:00 p.m.	MBK Volunteer Dinner							

Short Course Schedule

TUESDAY, AUGUST 6

MORNING

(Subject to Change)

7:00 - 8:00 a.m.	Zumba with Erin Evans, Waverly Room						
7:00 - 8:30 a.m.	Breakfast Buffet in Grand Ballroom (those registered at Turf Valley Resort)						
7:30 a.m. - 4:00 p.m.	Registration and Honey Exchange Dropoff, outside Wedgewood Lobby						
8:00 a.m. - 5:00 p.m.	Master Beekeeper Oral Exams, Poplar A, B & C						
8:30 a.m. - 12:30 p.m.	Master Beekeeper Written Exam, Willow A, B & C						
	BEGINNER	INTERMEDIATE	ADVANCED	PRACTICAL BEEKEEPING	APIARY	QUEEN REARING	DEEP DIVE
		<i>Native Bees</i>	<i>The Secret Lives of Bees, Inside the Box</i>			<i>(pre-registration required)</i>	Half Day Classes - need to attend both parts
	Crystal Room	Tiffany Room	Merrriweather Room	Oakdale Room	Teaching Apiary	Terrace on the Green	Amphitheater
8:30 - 9:25 a.m.	Think Like a Beekeeper. Setting Goals, Making a Plan & Executing It <i>Cathy Misko</i>	Bio-diversity of Native Bees <i>Claire Maffei</i>	Keep Bees Inside Your House <i>Frank Linton</i>	A Honey Bee Human: Physiology of a Superorganism <i>Dr. Crystal Liebmanking</i>			Making Splits & Nucs: Increases in your Yards <i>Kim Mehalick</i>
9:25 - 9:35 a.m.	10 min transfer time						
9:35 - 10:30 a.m.	Beating the Odds. Making it Through the Early Years <i>John Benham</i>	Native Bees Versus Honey Bees. Is it Really a Competition? <i>Tim McMann</i>	What I've Learned from My Observation Hive <i>Phil Frank</i>	Understanding Bee Sting Allergies for Beekeepers. <i>Dr. David Golden</i>			Science of splits <i>Dr. Steinhauer</i>
10:30 - 11:00 a.m.	30 Minute Break – Snacks in Vendor Area, Cameo and Wedgewood Ballrooms and Lobbies						
11:00 a.m. - 11:55 p.m.	Recognizing Problems Early & Correcting Them <i>Brenda Keissling</i>	Attracting Bees to your Garden, Making Bee Boxes <i>Mark Patterson</i>	How Technology can Improve your Beekeeping Knowledge (Continuous Monitoring) <i>Dr. William Meikle</i>	Responsible Treatment Free Management <i>Kevin Inglin</i>			Various Split Types (walkaway, planned-) <i>Pam Hepp</i>
							Using a Snelgrove Board for Swarm Prevention and Making Splits <i>Kim Mehalick</i>
							What Makes a Good Nuc <i>Valerie Wampler</i>
							Guidance Questions for Nuc Buyers
12:15 - 1:15 p.m.	Lunch, Grand Ballroom						

TUESDAY, AUGUST 6

AFTERNOON

(Subject to Change)

	BEGINNER	INTERMEDIATE	ADVANCED	PRACTICAL BEEKEEPING	APIARY	QUEEN REARING	DEEP DIVE
		<i>Encouraging Growth in Your Bee Club</i>	<i>Moving from Backyard to Sideline</i>			<i>Pre-registration required</i>	Half Day Classes - need to attend both parts
	Crystal Room	Waterford Ballroom	Merrriweather Room	Oakdale Room	Teaching Apiary	Terrace on the Green	Amphitheater
1:30-2:25 p.m.	Pests & Diseases (part 1) <i>Cybil Preston</i>	The Strength of Study Groups, and Evolution in Maryland <i>David Schultz</i>	Lessons Learned Going from 2-800 Hives. (Don't Learn Them the Hard Way) <i>Jason Hough</i>	Getting Good Bee Pictures with Your Cell Phone <i>Phil Frank</i>			Varroa Biology & All Legal Mite Treatments (part 1) <i>Various EAS Certified Master Beekeepers</i>
2:00 – 5:00 p.m.	Honey Show Drop Off – Ellicott Room						
2:25-2:35 p.m.	10 min transfer time						
2:35-3:30 p.m.	Pests & Diseases (part 2) <i>Cybil Preston</i>	Encouraging New Beekeepers to Step Up. Keeping the Young Alive <i>MD MBK study group</i>	Setting up Contracts: Considerations Equipment Standardization <i>Jim Fraser</i>	Single Deep Hive Body Management <i>Steve Repasky</i>			Varroa Biology & All Legal Mite Treatments (part 2)
3:30-4:00 p.m.	30 Minute Break – Snacks in Vendor Area, Cameo and Wedgewood Ballrooms and Lobbies						
4:00-4:55 p.m.	Master Beekeeper Roundtable <i>EAS Certified Master Beekeepers</i>	Mentoring Programs that Work. Setting up a Club Teaching Apiary <i>Maureen Jais Mick</i>	Finances for Your Bee Farm <i>Erin Evans, CPA</i>	Honey Bee GPS Mobility Mechanisms <i>David Schultz</i>			
5:15-6:00 p.m.	Gentle Yoga with Bridgett Wilson, Waverly Room						
5:15 – 9:00 p.m.	Depart for Picnic/BBQ at Larriland Farms, Woodbine. Pre-registration required.						

Highlights for the Main Conference

By: Allen Hayes

This year's EAS main conference (Wednesday through Friday) is jam-packed with fascinating and interesting presentations. Starting with four top notch Keynote presenters in the mornings followed with afternoon breakout sessions.

Dr. Elizabeth Capaldi, of Bucknell University will present: *The Fountain: Bee Behaviors, Minds, and King Solomon's Ring [an update on cutting edge research on the cognition of bees]*.

Maryland's own Sam Droege, with the U S Geological Survey, is a native bee expert who also takes breathtaking photographs of these little-known insects. Attend his Keynote presentation: *How Bees Native and Non, Split Up the Plant World for Foraging*. Then visit his breakout session: *Taking High Resolution Stacked Photos of Bees Using Common SLR Equipment*.

Don't miss Dr. Michelle Flenniken, from Montana State University present: *The Impact of Viruses on Honey Bee Health at the Colony, Individual Bee, and Cellular Levels*.

Dr. Jeff Pettis, is the former Research Leader of the USDA Beltsville Bee Lab. He is Currently the President of Apimondia and he resides in Maryland. His keynote presentation is titled: *Beekeeping in a Changing World*.

All Keynote presenters will be doing at least one afternoon breakout session.

Have you ever wondered where the drone congregation area is near your apiary? There will be a session with a licensed operator who will fly an electric drone and look for DCAs in the area. This is sure to be a hit!

So, you know about the social behavior of honey bees but how is this social activity similar to, or different from, other social insects? There will be a talk about those called: *Insect Societies from Kings & Queens to Just Plain Wasps*.

We all have read books or articles written by someone who keeps bees in a certain part of the country and often these writers suggest how or when something needs to be done. Then you think, well that isn't true for where I live and keep bees. Because of this often-confusing

situation, we will have a double breakout session called Regional Beekeeping. (You must attend the first part to be able to attend the second part.) There will be a panel of three experienced beekeepers, one from the North, one from the Mid-Atlantic and one from the South. These folks will explain what, when, and why they do things in their respective sector of the EAS footprint. Hopefully, this will give beekeepers a better understanding of how things like nectar flows, temperature, humidity, and even soil type can have a tremendous effect on how you manage bees in your own neck of the woods.

You probably know someone who has either given up beekeeping or has not gotten into the craft due to the amount of lifting required to manage conventional hives. For these folks and for anyone else who does not get any younger with each passing birthday, we will have breakout sessions on *Accessible Beekeeping*. Some of the presentations will be in a classroom setting and other talks will be demonstrations in the apiary. Various hive types will be shown that lend themselves to anyone with limited mobility or strength, etc.

Pysanky you say. What the heck is pysanky? Well, it is an ancient Eastern European method of decorating eggs using beeswax. These eggs can be stunningly gorgeous and will inspire you to want to learn more about this sometimes-forgotten use of beeswax. Check out the Pysanky breakout session and learn how it is done.

Ever thought about keeping bees in a city? Have you wondered about what is different keeping bees on a rooftop? Drop in on the *Urban Beekeeping* track and learn all about how many folks are doing those things and doing it well. If you have ever delt with the mess of honey dripping everywhere when you move full honey supers from your apiary to the extracting room, then think about moving full dripping supers through a fancy office building without becoming banned from the premises.

The Beekeepers of Maryland would love to have you come to that little state sandwiched between the Mason-Dixon Line and the Potomac River this August for a great EAS Conference experience!

Main Conference Workshops

REGIONAL BEEKEEPING PANEL: NORTH, MID ATLANTIC AND SOUTH

This panel will discuss some of the common miscommunications and misconceptions regarding the regionality of beekeeping. What typical equipment, treatments, or management styles need to be adapted (or are not appropriate) for your specific region? What is great advice "from away" that will benefit your apiary? This will be an open discussion with experts from various regions.

Joint Q&A / Discussion to follow the presentations.

THE GAME OF DRONES - PART 1 AND 2 (TWO SESSIONS BACK-TO-BACK)

Honey bee drones are the Rodney Dangerfield's of the bee world, they (often) get no respect! Learn all about the amazing drones and their mysterious drone congregation areas, DCA, (and how to find them using the other kind of drone) at this informative talk.

Weather permitting, the class will move outdoors after the lecture portion to fly a mechanical drone to look for a DCA.



Tukka Dog

Interview with Tukka, the Beehive Inspector Canine

WEDNESDAY, AUGUST 7

Tukka will be joining us at EAS' annual conference this August, and we thought it might be nice to get to know him a little before the conference. Tukka, and his soon to retire buddy, Mack, have been working with Maryland Department of Agriculture's Chief Apiary Inspector Cybil Preston to inspect commercial beehives across the state for disease.

Submitted by Lisa Marie Ghezzi, Easton, Maryland; EAS Certified Master Beekeeper and member EAS Field Exam committee; Talbot County delegate, Maryland State Beekeepers Association; Maryland state delegate and board member, American Beekeeping Federation; and farmer, Maxmore Creek Farm LLC.

As you were emerging from springer-spaniel puppydom and considering a career, what appealed to you about working with honey bees? What personality traits and/or skills made you an attractive candidate?

As a springer-spaniel, we are bred for activities requiring a high level of energy. When I was little, around 9 months, maybe a year-old, I was sent to detection training at a Correctional Facility. I was assigned a handler and first worked on scenting marijuana and suboxone, a synthetic methadone. I really didn't like the facility life because my breed tends to be energetic and lively, I felt a bit penned in and crowded, as the loud noises agitated me. I love to be outdoors and didn't have as much opportunity to run and expend my excess energy at the Correctional Facility. My personality tends to be friendly, and I find that I enjoy pleasing others, especially my trainer. The timing was right when the opportunity came to help Cybil with her bees.



Cybil Preston and Tukka at their farm and apiary in Maryland.

Did Mack serve as a role model for you?

Yes, Mack was an excellent role model. He was well trained to observe and hear specific commands. As I watched Mack a couple times, I took to the work. It was helpful for me to experience another dog in action. Springer-spaniels are also known for being fairly easy to train; we are gifted with being intelligent dogs. This was evident as I learned quickly. Besides, we're also known for being close to our owners, and it was easy to like Cybil from the outset, and enjoy Mack's company too!

You are dedicated to your career. AFB is a highly contagious bacterial disease among honey bees that has the potential to destroy entire colonies. Clearing beehives free of disease before crossing state lines is a very important job. Was becoming one of a very few AFB dogs in the United States the right choice for you?

Note: while I was asking Tukka this question, he nodded his head assertively. I was born with and HONED a very strong work ethic... a DRIVE if you will... I enjoy working all day, every day. I love people, so you might think of me as personable, and of course, I've grown to really love working with Cybil. We form a great team. I love my work and am a great match with Cybil. You might say, I'm a very lucky dog to be engaged in this line of work!



After my very first grooming, lounging with my new brothers.

Have you had any allergic reactions to bee stings, or even an extreme anaphylactic reaction?

During the last 5.5 years I've been stung maybe four times, but have had no bad reactions. Two of those times were not during working times... I was rolling in the clover and unfortunately rolled on a bee and it got stuck in my luscious locks... a bee in my bonnet if you will... The other two stings happened in the bee yard after I had finished inspecting... the weather had warmed and bees were flying. I had not gotten to the truck quick enough and the bees found me... no worries though. I did not have any reaction and quickly forgot about it by playing with my toys. I'm uncomfortable when a bee gets stuck in my hair, because sometimes that means the bee may sting me in an effort to escape. I know honey bees are focused on foraging and don't mean to sting, but it happens. It's part of the job.

During this part of the interview, Cybil also shared that when she adopted Tukka on June 3rd 2018, he looked like the long-haired friendly dragon, Falkor, from the movie "The Neverending Story" having NEVER been groomed.

What training did you go through to prepare yourself for detecting AFB?

From my training at the Correctional Facility, I already knew search commands. Cybil switched out my reward to a special ball. She also switched out the smells from marijuana and suboxone to the AFB bacterium

Paenibacillus larvae. Cybil's commands were clearly directed and I was able to catch on fairly quickly. I had already trained 14 weeks at Correctional Facility and was able to get up to speed and in the apiary within 6-8 weeks after that.

Can you describe how you sense AFB; how does your nose feel or react? Are you certain at the moment you smell the AFB odor, or is there something you must do to verify you are certain?

I am fortunate to be able to pick up on the scent right away. Mack and I've communicated about this specifically. He experiences detection completely differently that I do; after sensing AFB with his nose, his whole body reacts with induced salivating and bracketing in his TFR (trained final response); this is also a result of his training being completely different from mine. My reaction is almost dry, if that makes any sense. My nose is very sensitive to the smell in the air, and I point immediately. Then it's over. I don't have time for shenanigans. I will find and point, enjoy my reward. I've done my job, at least for that poor colony, then move onto the next one.

Can you share some memorable on-the-job experiences with your work associate and mom, Cybil Preston?

It's important to keep focused on the job with my head down, so to say. I take my work very seriously. Since my energy levels run high, I work better when Cybil keeps the workday as low key and scheduled as possible, otherwise, Mack and I may get anxious or upset. There was one day where we kept our heads down, though challenged by the distractions of some ducks and Canada geese nearby. There were 700 hives on the ground we needed to work efficiently, and we did. I might go so far as to say we worked like champs. You know, 700 hives is a lot of sniffing! Just as an aside, with my trained sense of smell, I can inspect about 100 beehives in just 20 minutes. In the same amount of time, Cybil can get through one hive, though she's pretty efficient herself, so maybe two. With travel, preparation and greetings, this particular job took us about 4.5 hours. With all due respect and knowing that she's efficient, it would have taken Cybil at least 3 weeks to accomplish the same job. So, to answer your question, the distraction of the ducks and geese finally got to us, so, when we were finished, mom allowed us to run around a bit to chase the waterfowl. It was great day - hard work, hard play!

What have beekeepers done to assist you in your work? How can they better prepare themselves prior to your arrival to assure your investigation goes smoothly?

As I mentioned in my last response, eliminating distractions helps a lot. It's also really nice when the area is clean for us to walk. Sometimes bee yards can be a bit unkept with things such as old treatments lying around. When the grounds are clean, there are fewer distracting smells too, so we can get the job done more efficiently and precisely. Also, it helps when beehives are close to the ground at about one foot, or at most two feet. We typically like to work in cold weather, when the bees cluster so that we don't have to work around flying bees. But sometimes those hearty little buggers will be active on the landing board in the low 40 degree range.... I am NOT a fan, lol.

Are you concerned about the "vaccination" for AFB; will this possibly put you out of a job?

Actually, putting us out of a job would be OK! Though I don't think it will be in my lifetime, it could be soon. I would love to see it if less bees were euthanized due to AFB. As much as I love my job, it would be better for the industry all around – beekeepers would have one less issue to deal with, there would be one less stressor for the bees. Yes, there's the possibility I might face an early retirement, but on the bright side, I'd have more playtime. Less restricted time and more time to go, go, go! I do love swimming in the creek and pool. As for the future... with dogs on the couch and healthier bees, these are both good things.

Left: The break at the elbow; after surgery with a plate, pins, screws and wire. Right: Rehabilitation. Beginning to show some signs of improvement, though putting full weight on my paw is difficult.



I understand you were injured. Can you please share with us what happened?

So, I was running around with my brothers, and we watched mom walk down the driveway, while jackpotting around and wrestling with my brothers the boisterous momentum of our play got too close to the edge and I fell off of a 6' retaining wall, landing solely on my right forearm.

You had to undergo extensive surgery. Had you faced surgery before? What concerns did you have? Please share with us your experience.

Yes, I had had surgery before, but very different. I had been "fixed" for whatever that's worth, and at that time had a few teeth pulled. Nothing major. Easy peasy recovery. Now, this was a big deal. The doctor said surgery would last 4-5 hours. It was over 6 hours. They used a plate, pins, screws and wires to reattach my bone at the elbow. I get woozy just thinking about it. Recovery was NOT easy peasy but I did get LOTS OF ATTENTION!! For WEEKS! That part was not too bad.

I understand rehab was essential for you ever walking again, let alone working. Please tell us about your rehab regimen.

After the surgery, my lower forearm and paw muscles were not actively working. I was not able to put any weight on it. I was tripodding it. Over the twelve-week recovery period, I needed to relearn to walk. It took three weeks after the accident just to start to put the paw down; it was so tender. The veterinarian used various therapies including massage therapy, ultrasound, UV light and a water treadmill. Both Cybil



and I even had to wear protective eyeglasses when they applied the UV Light to prevent any damage to our retinas. I enjoyed the water treadmill the most. They started me off walking in the treadmill with 2-3" of water, and increased the amount of water so I could strengthen my forelimb and paw without putting all my weight on it at the beginning.

Rumor has it many people helped defray the costs for your surgery. How do you feel about all the attention?

It was completely humbling to all of us, Cybil, Mack, Clark and me, that people thought so much of us to step up and help. The surgery and rehabilitation cost well over \$14,000. Not that anyone ever said this, but you know, I could have been quietly put to sleep. That's a lot of money. But obviously, that wasn't the case. There were a few key people at the outset that got the word out and beekeepers across Maryland generously stepped up to help. First, Allan Storm, Russell Sprangel and Dave Schultz talked with some folks and clubs. As soon as Eric Malcolm in Montgomery County found out, he wrote a private letter and set up an email blast to the Maryland bee clubs. Money came in from the Maryland State Beekeepers Association (MSBA) and clubs throughout the state. The Montgomery County Beekeepers Association structured the donations to meet tax requirements and gifted the funds raised as a grant.

At this point Cybil spoke up in the interview and said with gratitude and near tears in her eyes, "I was very humbled. I was very touched that so many people reached out to help. Beekeepers across the state were very generous. Not only did they fund the surgery, but they bought special toys for Tukka, Mack and Clark. We could not have gotten through this without the outpouring of kindness, thoughtfulness, love and generosity of everyone."

What do you do in your off-hours? I hear you have a brother, Clark. Are you able to enjoy time with Clark and Mack?

As you may have gathered, a working day is a hard day. My schedule is very regimented, and I typically spend most of it either working or honing my detection skills or working on my stamina. I get very little spare time to play. I love Clark, but we're different; he has about half the energy I have and loves to snuggle... I think I



We've just finished up and are waiting for Cybil while she finishes up stickering the hives; it usually takes her a little longer to finish her work.

have heard him referred to as "Couch potato". Don't get me wrong, I love to snuggle too, but I need to run off my excess energy. If Clark and Mack are up for some horsing around, and go along with my program, that's great. I think we all know this is always ALL about ME! All three of us will run, play ball, hunt and swim hard together.

I understand you'll be making an appearance at EAS in Maryland this summer. Will you and Cybil be speaking on a topic or doing a demonstration? Will there be an opportunity to get to meet you?

Yes, we plan to be out and about at EAS the whole week. I'm not sure if the formal schedule is finalized, but we plan to socialize and present a breakout session on scent detection and what it's like to work with dogs.

Tukka, it's been a pleasure getting to know you. Is there anything we didn't address that you'd like to share?

Yes, something that's very important to me. Life is good. I feel particularly grateful for the goodness of beekeepers that I can run again and am alive. Though Mack, Clark and I are all very different animals, the three of us and Cybil make a team, a fully engaged detection team with all of us sticking together (though Clark doesn't work on the detection, he's still part of the team). We are "The Team" at all times. It never breaks. We don't have a lot a lot of independence to be much else. Our team bond is ever present.

Conference Schedule

WEDNESDAY, AUGUST 7

MORNING

(Subject to Change)

7:00 - 8:00 a.m.	Zumba – <i>Erin Evans</i> , Waverly Room
7:00 - 8:30 a.m.	Breakfast Buffet in Waterford Ballroom (those registered at Turf Valley Resort)
7:30 a.m. - 4:00 p.m.	Registration and Honey Exchange Dropoff, outside Wedgewood Lobby
8:00 - 11:00 a.m.	Honey Show Entries Accepted, Ellicott Room
8:30 a.m. - 12:30 p.m.	Master Beekeeper - Lab Exam, Willows Rooms A, B & C
9:00 a.m. - 4:30 p.m.	Master Beekeeper - Field Exam, Testing Apiary
8:30 - 8:45 a.m.	Introductions and Welcome – <i>Eloise Naylor</i> , EAS Chair & <i>David Morris</i> , EAS President, Grand Ballroom
8:45 - 9:00 a.m.	Welcome from the Maryland State Department of Agriculture Secretary, Kevin Atticks, Grand Ballroom
9:00 - 9:30 a.m.	30 Minute Break – Snacks in Vendor Area, Cameo and Wedgewood Ballrooms and Lobbies
9:30 - 10:30 a.m.	<i>Dr. Michelle Flenniken</i> , The Impact of Viruses on Honey Bee Health at the Colony, Individual Bee, and Cellular Levels, Grand Ballroom
10:30 - 11:30 a.m.	<i>Dr. Elizabeth Capaldi</i> , The Fountain: Bee Behaviors, Minds, and King Solomon's Ring [an update on cutting edge research on the cognition of bees]
11:30 a.m. – 12:45 p.m.	Lunch, Grand Ballroom Visit Vendors, Cameo and Wedgewood Ballrooms and Lobbies

WEDNESDAY, AUGUST 7

AFTERNOON

(Subject to Change)

50-minute workshops	The Bees Knees	Romancing the Drones	Oh, What You'll See When You Think Like a Bee	Miscellany	Bee Keeping Topics	Apitherapy	APIARY
	Amphitheater	Tiffany Room	Crystal Room	Merriweather Room	Waterford Ballroom	Oakdale Room	Teaching Apiary
1:00-1:50 p.m.	A Honey Bee Human: Physiology of a Superorganism <i>Dr. Crystal Lehman</i>	Flooding DCAs with Drones <i>Mark Gingrich</i>	Scent Detection Demo, Canines Tukka, Mack and their Handler <i>Cybil Preston</i>	Miticides <i>Dr. Steve Cook</i>	Gadgets You Could Keep Bees Without, But Won't Want To <i>Allen Hayes</i>	Plants for Medical Grade Honey <i>Dr. Ferhat Ozturk</i>	Marking Drones
1:50-2:00 p.m.	10 min break/ transfer time						
2:00-2:50 p.m.	Honey Bees and Their Viruses <i>Dr. Michele Flenniken</i>	Wax On, Wax Off: Making Award Winning Candles <i>Virginia Webb</i>	State Apiary Inspectors Panel <i>Natasha Garica-Andersen, Lead</i>	Longtime Disease Trends from the USDA's Bee Disease Diagnostic Service <i>Sam Abban</i>	EAS Master Beekeeper Program: History, Why & How <i>Erin Evans</i>	Unique Products of the Hive for Apitherapy <i>Dr Petrusia Kotlar</i>	Varroa Testing
2:50-3:20 p.m.	30 Minute Break – Snacks in Vendor Area, Cameo and Wedgewood Ballrooms and Lobbies						
3:20-4:10 p.m.	Almost Every Device Under the Beekeeping Sun <i>Russell Sprangel</i>	Game of Drones PART 1 Lecture <i>Julia Mahood</i>	Honey Bee Digestion <i>Dr. David Peck</i>	Regional Beekeeping: North, Mid Atlantic, South Part 1 <i>Erin Evans, Eric Malcolm, Kent Williams</i>	Spotted Lantern Fly Honey for Medicine <i>Dr. Petrusia Kotlar</i>	"Propolis: Trapping and Tinctures" <i>Debbie Klughers</i>	Accessible Apiary <i>Dr. Adam Ingrao</i>
4:10-4:20 p.m.	10 Minute Break / transfer time						
4:20-5:10 p.m.	Almost Every Device Under the Beekeeping Sun <i>Russell Sprangel</i>	Game of Drones PART 2 Flying a Drone-Outdoors <i>Julia Mahood</i>	AFB Vaccine <i>Nathen Reid (Dalan Co.)</i>	Regional Beekeeping: North, Mid Atlantic, South Part 2	How to Help Engage Children in K-6 Schools with Bee-related Themes/Activities <i>Dr. Elizabeth Capaldi</i>	Medicinal Use of Honey: Evidence-based Applications <i>Dr. Ferhat Ozturk</i>	Hives Langstroth Did Not Invent <i>Allan Storm</i>
5:15-6:00 p.m.	Gentle Yoga – <i>Bridgett J. Wilson</i> , Waverly Room						
5:15-6:30 p.m.	Bee Olympics – Teaching Apiary						
6:30 - 9:00 p.m.	Happy Hour – Cash Bar, Grand Ballroom						
7:00 - 8:30 p.m.	BBQ Dinner, Grand Ballroom						

Conference Schedule

THURSDAY, AUGUST 8

MORNING

(Subject to Change)

7:00 - 8:30 a.m.	Breakfast Buffet in Waterford Ballroom (those registered at Turf Valley Resort)
7:30 a.m. - 4:00 p.m.	Registration and Honey Exchange Dropoff, outside Wedgewood Lobby
8:00 a.m. - 12:00 p.m.	USDA Bee Research Laboratory, Beltsville, MD– Tour 1 (pre-registration required)
8:00 a.m. - 12:00 p.m.	Children’s Program (pre-registration required), Terrace on the Green
8:30 - 8:45 a.m.	Conference Updates – Eloise Naylor, EAS Chair & David Morris, EAS President, Grand Ballroom
8:45 - 9:30 a.m.	Presentation by Dr. Margarita López-Urbe, 2024 Hamelton award winner <i>"The benefits and promises of organic beekeeping"</i>
9:30 - 10:00 a.m.	30 Minute Break – Snacks in Vendor Area, Cameo and Wedgewood Ballrooms and Lobbies
10:00 - 11:00 a.m.	Sam Droege: How Bees Native and Non, Split Up the Plant World for Foraging, Grand Ballroom
11:30 a.m. - 5:00 p.m.	Honey Show Open for Viewing, Ellicott Room
11:00 - 11:30 a.m.	Presenter and Topic TBD, Grand Ballroom
11:30 a.m. - 1:00 p.m.	Life Member Luncheon, Waterford Ballroom (open to Life Members who have pre-registered and paid in advance)
11:30 a.m. - 12:45 p.m.	Lunch, Grand Ballroom Visit Vendors, Cameo and Wedgewood Ballrooms and Lobbies

THURSDAY, AUGUST 8

AFTERNOON

(Subject to Change)

1:00 - 5:00 p.m.	Children’s Program (pre-registration required), Terrace on the Green							
	Bee Stuff	Photography	Accessible Bee Keeping	Out of Africa and Other Topics	Urban Beekeeping	Think Like a Bee	Apiary	
	Tiffany Room	Crystal Room	Waterford Room	Merriweather Room	Oakdale Room	Amphitheater	Teaching Apiary	
1:00 - 1:50 p.m.	The Unappreciated Drones (and Why You Should Care About Them) <i>Dr. Jon Zawislak</i>	Taking High Resolution Stacked Photos of Bees Using Common SLR Equipment <i>Sam Droege</i>	Accessibility in the Bee Yard <i>Dr. Adam Ingrao</i>	Africanized Honey Bee Update <i>Dr. Dewey Caron</i>	Beekeeping in, of, or for the City <i>Dr. Eve Bratman</i>	Insect Societies from Kings & Queens to Just Plain Wasps <i>Dr. James Wilson</i>	Demonstration of the Honey Bee Dance <i>Dr. Elizabeth Capaldi</i>	
1:50 - 2:00 p.m.	10 min break/ transfer time							
2:00 - 2:50 p.m.	Feral honey bees: Reservoirs of disease or sources for future breeding? <i>Dr. Margarita López-Urbe</i>	How to Take Better Bee Pictures with Your Phone <i>Phil Frank</i>	Assistive Technology for Accessible Beekeeping <i>Justin Ruger</i>	Business Models: Do You Really Need All Those Bees? <i>Kent Williams</i>	Model Urban Beekeeping Projects and Practices from a Crowded City <i>Mark Patterson</i>	Comb and Nest Architecture <i>Grai Rice</i>	Evaluating a Good Colony Versus a Bad One <i>Dr. Jeff Pettis</i>	
2:50 - 3:20 p.m.	30 Minute Break – Snacks in Vendor Area, Cameo and Wedgewood Ballrooms and Lobbies							
3:20 - 4:10 p.m.	Nectar Producing Plants for Honey Bees <i>Joe Alvarez</i>	Thermoregulation and Ventilation <i>Bill Hesbach</i>	AZ' Hive Discussion <i>Jonna Sanders</i>	HBHC Update <i>Dr. Tammy Horn-Potter</i>	Critical Assets Every Urban Beekeeper Needs <i>Charles DeBarber</i>	Anticipatory Beekeeping <i>Dr. Dewey Caron</i>	Examining Sterilized AFB Comb <i>Don Hopkins</i>	
4:10 - 4:20 p.m.	10 Minute Break / transfer time							
4:20 - 5:10 p.m.	The ecological impacts of beekeeping and the importance of beekeepers as stewards of the environment <i>Dr. Margarita López-Urbe</i>	What New Pests May Be Coming: Hornets, etc. <i>Dr. Jeff Pettis</i>	Therapeutic Values of Keeping Bees <i>Monica Schmidt</i>	Bees Don't Bite: Facts About Bee Stings that every Beekeeper Should Know <i>Dr. Barry Thompson MD</i>	Nuts and Bolts of Urban Beekeeping <i>Toni Burnham</i>	Attracting Bees to Your Garden & Bee Nesting Boxes <i>Mark Patterson</i>	Stress Free Beekeeping by the Sustainable Honey Bee Program. <i>Richard Whitlow</i>	
5:15 - 6:00 p.m.	Gentle Yoga – Bridgett J. Wilson, Waverly Room							
7:00 – 10:00 p.m.	Happy Hour - Cash Bar, Grand Ballroom							
7:00 - 8:00 p.m.	Dinner Buffet, Grand Ballroom							
8:00 - 10:00 p.m.	Live Auction and Honey Show Silver Awards, Grand Ballroom							

Conference Schedule

FRIDAY, AUGUST 9

MORNING

(Subject to Change)

7:00-8:30 a.m.	Breakfast Buffet in Waterford Ballroom (those registered at Turf Valley Resort)
7:30-8:30 a.m.	Master Beekeeper Annual Meeting and Breakfast, Terrace on The Green
7:30 a.m.-noon	Registration, outside Wedgewood Lobby
8:30-8:45 a.m.	Conference Updates – <i>Eloise Naylor</i> , EAS Chair & <i>David Morris</i> , EAS President, Grand Ballroom
8:45-9:30 a.m.	Presentation by Dr. Debbie Delaney the 2024 Morse Award Winner, Grand Ballroom
9:30-10:00 a.m.	30 Minute Break – Snacks in Vendor Area, Cameo and Wedgewood Ballrooms and Lobbies
10:00-11:00 a.m.	<i>Dr. Jeff Pettis</i> , Beekeeping in a Changing World, Grand Ballroom
11:00-11:15 a.m.	Michigan EAS 2025 Conference Introduction, <i>Rich Wieske</i> , EAS President 2005
11:15 a.m.-12:15 p.m.	EAS Annual Business Meeting, Grand Ballroom
11:30-1:00 p.m.	Lunch, Grand Ballroom

FRIDAY, AUGUST 9

AFTERNOON

(Subject to Change)

50-minute workshops	Are you Smarter Than a Fifth Instar Larva?	Research, etc.	Keys for Keeping Bees	Bee Skills	Reaching Out	Communication and Bee Health	Apiary
	Crystal Room	Merriveather	Tiffany Room	Oakdale Room	Amphitheater	Waterford Ballroom	Terrace on The Green
1:00 - 1:50 p.m.	Topic TBD <i>Dr. Debbie Delaney</i> the 2024 Morse Award Winner	“Small Hive Beetle - What Do we Know so Far?” <i>Dr. Humberto Boncristiani</i>	Perpetual Beekeeping <i>Dorinda Priebe</i>	Difference Between Native Bees and Honey Bees <i>Tim McMahan</i>	Keep the Buzz Going, Customize a Youth Scholarship Program <i>Cathy Misko</i>	Good & Bad Microbes in Bee Colonies <i>Dr. Jay Evans</i>	
1:50 - 2:00 p.m.	10 min break/ transfer time						
2:00 - 2:50 p.m.	Tools & Tips <i>Debbie Klughers</i>	Setting Up a Self-Service Store to Sell Honey <i>Landi Simone</i>	Pollen <i>Bill Hesbach</i>	Veterinary Feed Directive <i>Dr. Rebecca A. Krimins</i>	Bee Zoning Laws <i>David Frank</i>	Pheromones: Chemical Communication in the Hive <i>Dr. James Wilson</i>	
2:50 - 3:20 p.m.	30 Minute Break – Snacks in Vendor Area						
3:20 - 4:10 p.m.	Presentation by Dr. Debbie Delaney the 2024 Morse Award Winner	Perdue Leg-Chewing Stock & Genetic Selection in Our Apiary <i>Burton Beasley</i>	EFB and Me, A “Real Hive” Situation <i>Dorinda Priebe</i>	Setting up a Home Microscopy Workshop <i>Eric Smith</i>	Terrace on the Green Pysanki-making Workshop <i>Evelyn Hogg</i>	Novel Disease Treatments <i>Dr. Jay Evans</i>	
4:10 - 4:20 p.m.	10 Minute Break / transfer time						
4:20 - 5:10 p.m.	Speaker Panel with Keynotes and Award Winners, Waterford Ballroom						
6:30 - 9:00 p.m.	Happy Hour – Cash Bar, Grand Ballroom						
7:00 - 8:00 p.m.	Plated Dinner, Grand Ballroom						
8:00 - 10:00 p.m.	Awards, Grand Ballroom						

SATURDAY, AUGUST 10

7:00 – 8:30 a.m. Breakfast Buffet in Crystal/Regency Ballroom (those registered at Turf Valley Resort)

Conference Honey Show

Maryland, "The Old-Line State" or the "Free State," stretches from the Atlantic Ocean to the Appalachian Mountains and is home to the Baltimore Orioles, great Chesapeake Bay seafood, and so much more. You don't want to miss EAS 2024 and the Honey Show to be held at the Turf Valley Resort in Ellicott City, Maryland. The Maryland team has been promoting the conference and the honey show to all the Maryland beekeeping organizations and encouraging them to participate. I would like to challenge each member of EAS who plans to attend the conference to place at least one entry in the honey show. Do you have the best tasting honey? Enter the black jar contest. Do you have a fantastic beekeeping-related photo, the most perfect jars of honey, a beautiful frame of comb honey, or exceptional wax products such as candles, sculptures, etc.?

Don't forget the baked goods and candy categories.

Maybe you are a woodworker, mead maker, glass sculptor, seamstress, painter, or artist of any kind. There is a category in the contest for you to enter.

Do not be that person who says, "I should have entered my _____. I can do better than that."

This is one of the top shows in the country. Imagine taking home a silver platter or bowl saying that your entry was the best of the best! If you are new to entering honey shows, this is a great opportunity to find out how your entry will compare. Even if you do not win the top prize, you can use the judges' comments to fine tune your entry for an even better chance the next time you compete. Our judges are top notch and can provide insight into how to prepare your honey or wax to be the



highest quality product for your customers. Be sure to read the 2024 rules for entering which are posted on the EAS website. Any changes to the rules from last year will be highlighted in red. Honey show tips and tricks as well as many resources on entry preparation and judging criteria will be updated and can be found on the EAS website at <https://easternapiculture.org/conference/honey-show/resources-for-preparing-honey-show-entries-and-judging-criteria/>

Honey show registration and entry drop-off will be at the Ellicott Room on the lower level of the Club House wing on Tuesday, August 6 from 2:00 - 5:00 p.m. and again on Wednesday, August 7 from 8:00 - 11:00 a.m. Signage will be posted in the main lobby to direct you to the honey show. A preparation area will be provided so you can put the finishing touches on your products. The honey show committee looks forward to seeing you and your exceptional entries in Maryland.

If you have any questions about the honey show, please feel free to contact Jim Fraser at marylandhoneycompany2011@gmail.com.



Honey Exchange

Bring up to three 1-pound jars of honey to the conference and place it in the honey exchange and then pick up an "exchange jar" for each jar of honey that you bring. An excellent way to taste the range of flavors from across the EAS states and provinces. Label the honey by your location and blossom source, if known, to allow others to choose a variety they are unfamiliar with.

Getting ready for the 2024 Honey Show

The EAS Honey Show Advisory Committee, would like all EAS members who plan to enter the Honey Show to be aware of several small changes to the EAS Honey Show rules for 2024. The Black Jar class (H10) has several changes for 2024. This year entrants will be given a black jar to pour up to eight ounces of honey into for their entry. In addition, there will be only one award made in the Black Jar class. Another change is that the Creamed Honey (H4) will now accept entries in EITHER a one pound, round, short glass jar or a one pound, round, tall glass or GCI type jar. We hope this makes entering this class more accessible to conference attendees. We are pleased that Gamber will continue to support the honey show, and their award will be given only to those entering the LIGHT or AMBER class who use a Gamber classic jar. Finally, we have added an addendum to the show rules with visuals for the type of jars needed for entry and a display of the fill line. We thank the SC State Beekeepers Association for the idea. The final show rules up on the EAS web site. We look forward to seeing your entries this summer on the show bench—remember you have to be in it to win it!

The 2024 EAS Honey Show Advisory Committee: Karla Eisen (Chair), Jim Fraser (MD 2024 Conference Honey Show Chair), Chris Beck (MI 2025 Conference Honey Show Chair), Mark Fiegl, Christine Delaney, Michael Palmer, Bob Wellemeier, George H. Wilson (Chair Emeritus).

EASTERN APICULTURAL SOCIETY HONEY SHOW RULES ADDENDUM: ENTRY JARS

What are the appropriate containers for my extracted honey, chunk honey and/or creamed honey entries?

Refer to the Eastern Apicultural Society (EAS) show rules for required jars and containers for each class.

Classic and Queenline glass jars are both 1 lb extracted honey



Chunk Comb Honey
Creamed Honey
(1 lb.) option 1



Creamed Honey (1 lb.)
Option 2



PROPER FILL LEVEL



Fill jar to above the top of the fill ring or bead with barely enough honey that no air space is visible below the lid when viewed from the side

EAS Children's Program: Bee and Beekeeping Education for Kids

Come learn the wonders of honeybees!

The Children's Program is hosted by the Eastern Apiculture Society, Thursday August 8, 2024 in the Terrace on the Green Room. A morning program, 9:00-11:00 am for ages 4-7 years and an afternoon session 1:00-4:00 pm for ages 8-12 years. Parent/guardian must accompany the child.

Each session will involve multiple stations with hands on activities. Observe live bees through the glass walls of an observation hive. Try on the bee protective equipment beekeepers wear. Take apart a bee hive (minus the bees) and see how and where the bees live. Make your own bee antennas. Mold Beeswax. Role play the many roles/jobs in a colony. Dissect flowers. And of course, extract and taste honey!

Experience the sights, sounds, smells, feels and tastes of a honeybee colony. Learn to think like a honeybee. The goal of the Children's Program is to educate kids about bees, beekeeping and their important role in our environment. Understanding the life of a honeybee and the complex organization of a hive will make you

think differently when you see a bee on a flower in your garden. Pause, admire and thank the bee for all it does for our environment.

Visit easternapiculture.org/children in early Spring to learn more about the program and register to attend.



Conference Features

Yoga

Bridgett Wilson is a Yoga Alliance RYT-200 yoga teacher from Virginia who was trained in the Ashtanga yoga lineage that traces from Pattabhi Jois and David Williams to Jonny Kest and his LifePower yoga teacher training. She specializes in Gentle, Hatha and Vinyasa classes in her teachings and personal practice.

In her class, expect a gentle flow with progressive sequencing that starts slowly and builds in intensity. Suitable for all levels.

Beekeeper Zumba!

Zumba is a Latin-inspired dance workout that is primarily an interval aerobic workout — and it's all about having fun. This class is designed for beginners - and beekeepers! A fun playlist and easy to follow moves make this the perfect way to start your day.

Vintage Smoker Collection

Jharles DeBarber, a Baltimore beekeeper, will be displaying some of his beekeeping antiques at EAS 2024. He specializes in bee smokers, having many early American smokers and many other smokers from around the world. Mr. DeBarber is a collector of old hives and extractors as well with a robust library of early beekeeping catalogs.

The collection speaks to the era of early industrial beekeeping (1850-1910) and the great innovations in America and abroad.

Painted Hive Boxes

For the past few years, local organizations have provided painted bee equipment, primarily hive boxes, for a silent auction. This year we will be offering hive bodies and a few complete hives in this silent auction. We have asked local youth groups to use their creative talents to paint these. These can enhance your apiary or be used as a decorative accent in your home or shop. Because the bees see color and patterns, these may help them find their way home and reduce some drifting if used in the apiary. The painted items will be available for viewing and bidding during the conference. Hive bodies are being donated by local clubs and suppliers, and the youth supply their talents. In return, the youth groups will receive the money that is raised from the sale of the hive bodies they painted to use for some other project and hopefully learn about the honey bees as well. Be sure to check out these hives to support our young artists and maybe potential beekeepers!



Vendors

The EAS Vendor Auditorium will be “Buzzin with Activity” this year!

See the new equipment, literature, and services from your favorite bee equipment suppliers. The familiar big companies you know and love will be here as well as regional and independent operations.

Honey Bee non-profit associations will also exhibit in the Vendor area, stop by, and learn about their mission, research, and outreach.

We again welcome daily “Pop-Up Booths”. Exhibitors will feature a variety of local bee-related art and crafts.

The Vendor area is conveniently located on the first floor of the Turf Valley Resort, right next to Conference Registration. The Vendor area will be open Monday at 1:00 pm through Friday midday.

Please support the Folks that support EAS!



Auctions

EAS auctions will again be virtual, silent, and live this year.

Virtual Auction: About a month before the conference, items will be posted on a virtual auction site, open to all EAS members, that will continue into the first day of the conference. These items will vary from vendor offerings to personally donated items.

Silent Auctions: Each day of the conference, items will be laid out in the morning and changed out in the afternoon for bidding in the silent auction. Items will range from clothing, equipment, bee supplies and home decorating items.

Live Auction: The live auction will be held on August 8 following the Thursday night dinner. It will feature select items donated by vendors and individuals including award winning items from the Honey Show. Also included are impressive, bountiful gift baskets submitted by beekeepers showcasing items from each of their States/Provinces.

Do you have an item, service or experience you would like to donate? Please contact Meghan if you wish to make a donation to the auction, at auctioncommittee@easternapiculture.org

Join the fun, support EAS, and go home with a new treasure.



Field Trips

Bus Trips

These bus trips require pre-registration and payment. Payment includes the cost of transportation and entrance fees. Each trip is its own adventure so that you can design your conference the way you want. Information on the upcoming registration form.

USDA Bee Research Laboratory - Beltsville, MD

Thursday, August 8

It wouldn't be an EAS conference without a trip to the lab. Meet the scientists, see the lab space and where you send your samples. There will be a morning and an afternoon trip to the Bee Lab in Beltsville on Thursday.



Iconic Fort McHenry

Wednesday August 7, Morning trip

The defense at Fort McHenry in 1814 inspired Francis Scott Key to pen the words that would become the U.S. national anthem. Tour the grounds' scenic waterfront promenade and step back in time with a tour of the Historic Zone and Star Fort.



Historic B&O Railroad Museum

Wednesday August 7, Afternoon trip

Known as the birthplace of American railroading, the B&O Railroad Museum gives visitors the chance to experience the story of American railroading at the very place where it began.





Attractions Around the Region



Ladew Topiary Gardens

A historic mansion, formal gardens with 22 “rooms” & a nature trail available to tour & explore.
3535 Jarrettsville Pike, Monkton, MD 21111

Baltimore



National Aquarium

Explore award-winning exhibits and meet all the animals at the National Aquarium, located on Baltimore’s Inner Harbor.
501 E Pratt St, Baltimore, MD 21202

Cylburn Arboretum

Cylburn Arboretum is an urban oasis in Baltimore City with hundreds of specimen trees, gorgeous gardens, and wooded trails.
4915 Greenspring Ave, Baltimore, MD 21209

American Visionary Art Museum

AVAM specializes in original thematic exhibitions that seamlessly combine art, science, philosophy, humor and especially social justice and betterment.
800 Key Hwy, Baltimore, MD 21230

Historic Ships in Baltimore

Maritime museum with 1850s sloop-of-war & lighthouse, plus a submarine, Coast Guard cutter & more.
301 E Pratt St, Baltimore, MD 21202

Baltimore Museum of Art

Founded in 1914, the BMA’s collection of 95,000 objects encompasses modern art, as well as one of the nation’s finest holdings of prints, drawings, and photographs.
10 Art Museum Dr, Baltimore, MD 21218



Oriole Park at Camden Yards

Oriole Park has been widely hailed as one of the best stadiums in baseball. Also nearby, the Babe Ruth Museum, Go O’s!
333 W Camden St, Baltimore, MD 21201

Walters Art Museum

The museum’s collection encompasses 36,000 objects from around the world. Admission is free.
600 N. Charles St. Baltimore, MD 21201

Around Turf Valley

Howard County Fair

From thrilling rides to interactive exhibits, educational demonstrations and delicious food, the annual Howard County Fair has something for everyone.
2210 Fairgrounds Rd, West Friendship, MD 21794

Historic Ellicott City

Old Ellicott City boasts historic architecture, river, hills and an eclectic community full of artists, shop keepers, restaurateurs and antique shopping.
8358 Frederick Rd, Ellicott City, MD 21043

Clark’s Elloak Farm

Working farm with a shop, a fairy tale forest, a petting zoo & miniature train rides for kids.
10500 Clarksville Pike, Ellicott City, MD 21042

Downtown Frederick (30 mins)

Tree-lined arts and entertainment district known for its more than 200 galleries, specialty shops, and eateries, along with its thriving craft brewery scene.



Robinson Nature Center

18-acre center exploring the local ecosystem via a planetarium, nature exhibits & wooded trail.
6692 Cedar Ln, Columbia, MD 21044

Benjamin Banneker Museum

142-acre site dedicated to telling the inspiring story of Benjamin Banneker, often considered the first African-American man of science. They also have hives on site!
300 Oella Ave, Catonsville, MD 21228

Black Flag Social House

Brewery
2050 Marriottsville Rd, Marriottsville, MD 21104

Manor Hill Brewing

Maryland's largest farm brewery. Located on a picturesque 54-acre working farm in Ellicott City.
4411 Manor Ln, Ellicott City, MD 21042
Downtown, Frederick, MD 21701

Monocacy National Battlefield

This park on a Civil War battleground site offers a visitor center, hiking trails & special events.
5201 Urbana Pike, Frederick, MD 21704

Annapolis area

Downtown Annapolis

Home to Maryland's state capitol, this historic downtown partnership hosts options for waterfront dining, unique shopping and cobblestone streets.
Main St, Annapolis, MD 21401

U.S. Naval Academy Museum

Videos & modern exhibits exploring the history of the U.S. Navy & the role of the Naval Academy.
118 Maryland Ave, Annapolis, MD 21402

Banneker-Douglass Museum

Exhibits detail African-American history in the Chesapeake region from 1633 to the civil rights era.
84 Franklin St, Annapolis, MD 21401



Annapolis Maritime Museum & Park

Riverfront venue devoted to the ecology, maritime history & arts of the Chesapeake, with boat tours.
723 Second St, Annapolis, MD 21403

District of Columbia (DC) area

Hillwood Estate, Museum & Gardens

Opulent estate with 18th-century Russian Imperial & French decorative art, 13-acre gardens & cafe.
4155 Linnean Ave NW, Washington, DC 20008

Montpelier House Museum

Circa-1780s mansion once visited by George Washington now a museum with tours & Christmas displays.
9650 Muirkirk Rd, Laurel, MD 20708

U.S. Capitol

With its soaring spaces and skylight views of the Capitol Dome, the Capitol Visitor Center welcomes you on a journey of discovery. It is where the issues facing the nation are considered, debated and written into law.
First St SE, Washington, DC 20515

United States Botanic Garden

Sprawling grounds featuring exotic flora plus conservatory, rare plants gallery & butterfly garden.
100 Maryland Ave SW, Washington, DC 20001



Smithsonian Museums (U.S. Capitol area)

Smithsonian National Museum of Natural History
Smithsonian American Art Museum
Smithsonian National Air and Space Museum



Volunteer Discounts for EAS 2024

If volunteering for 4-7 hours (hours performed exclusively as room monitoring will be excluded - monitoring hours when combined with other volunteer hours will be counted), Monday through Friday, you may request \$50 of your conference registration fee to be refunded.

If you volunteer for 8 to 15 hours, Monday through Friday, you may request a refund of \$100 from your conference registration fee and get a volunteer t-shirt. You can split the 8-15 hours of volunteering into smaller time increments and 8 hours of attending talks between two days.

If you volunteer for 16 or more hours (2 days), you will receive a volunteer T-shirt and may request a \$200 discount from your conference registration.

All volunteers will be required to sign in and out each day to log their volunteer hours and will be given their assignment. You will also be noting what times that day you will be spending as a 'conference attendee' so that can be separated from the volunteering portion.

All requests for reimbursement must be made within 45 days from the conclusion of the conference and **ALL REFUND REQUESTS must be made in writing to treasurer@EasternApiculture.org**

The Treasurer will compare the requests with the volunteer logs and will issue refunds to the credit card you used to register for the conference. Any discrepancies will be researched, and the result will be at the discretion of the Treasurer.

Thank you for volunteering this year.

Register for EAS 2024

Registration will be open in the near future and will be announced via email. Registration is online only, although our registrar can help you register over the phone as well.

EAS 2024 CONFERENCE SHIRTS

Before the conference, be sure to check out the EAS 2024 shirts! Shirts and other EAS gear are available for pre-purchase at the EAS store by visiting easternapiculturesociety.wildapricot.org/store

Shirts come in women's v-neck short sleeve, unisex short sleeve, and unisex long sleeve.



COMMUNITY BUZZ



Pollen Identification

by Linda Mizer

For many of us it has been a very wet time as winter subsides. Not unexpectedly, temperatures are fluctuating week to week and day to night, but still our bees seek out whatever forage they can find from the early blooming plants. Fruit growers cautiously await their orchard blooms and hope there are no late killing frosts as there were last year – all the way to Georgia! We'll continue to heft the hives to evaluate their remaining stores and supplement feed as necessary. Warm weather can bring consumption of stores and early brooding which can leave the bees low on stores and with brood they can't manage during the cold spells. March can be such an uncertain time and we must remain vigilant to the status of our bees. Hoping your colonies are making it out of winter and will get through this final stretch of variable weather unscathed!

1. *Malus pumila*, Apple Tree - Mary Granger-Harbage, TN
2. *Oenothera Biennis*, Evening Primrose - Beverly Buckley from Pixabay
3. *Mertensia virginica*, Virginia Bluebell - Martine Gubernat, NJ
4. *Prunus mume*, Japanese Apricot - Stan Cardwell, NC
5. *Taraxacum officinale*, Dandelion - Steven Page
6. *Verbascum densiflorum*, Candle Flower, lungwort - Nicole Majer, VA

Please send me any (high resolution) pictures you may take of honey bees with filing pollen baskets on a bloom – including the name of the plant, the location and the date is much appreciated. It would be great to have representatives from all compass points of the EAS coverage!



ANSWER: The pollen granule is from #3, *Oenothera Biennis*.

POLLEN CREDIT: *Oenothera Biennis*, evening primrose - David Kyger, MD



AND COMING UP NEXT YEAR...

The Eastern Apicultural Society Conference is headed to Michigan!

AUGUST 4-8, 2025

Come celebrate the 70th Annual Short Course and Conference!

Michigan welcomes EAS for the 2025 conference at the University of Michigan's Dearborn Campus. Great information, great fun, great food, and great beekeepers. Join us and experience all that Michigan has to offer!



EAS Executive Committee, Directors, and Contacts

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Year indicates expiration of term as director.

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