



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

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Massachusetts Beekeeping

A HISTORY OF BEEKEEPING IN
MASSACHUSETTS

Master Beekeepers

HONORING
CORY STEVENS

"Past, Present, and Beeyond"

INVITATION TO AMHERST, MA FOR
THE EAS 2023 CONFERENCE



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THE EAS JOURNAL, SPRING 2023

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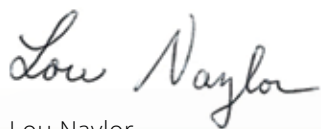
WELCOME, From the Desk of the Chair

I hope you are all enjoying this spectacular Spring.

Every year I think it has never been more beautiful. I think that about a few other things as well, like my honey tastes more delicious each year. Every year I think our conference is better also !

The EAS 2023 planning committee has been putting in many hours to prepare for our upcoming conference. Massachusetts has a very interesting, diverse line-up-of speakers and activities. To get an email notice of when registration opens , check that your membership is up to date now.

I hope to see all of you there.

A handwritten signature in black ink that reads "Lou Naylor". The script is fluid and cursive.

Lou Naylor
Chair, EAS



WELCOME, From the Desk of the President

The Massachusetts beekeepers are extremely excited to welcome our fellow EAS members to this summer's conference at the University of Massachusetts Amherst July 31-August 4th. It has been over 20 years since the EAS conference was last held in the Commonwealth of Massachusetts.

Massachusetts has a rich tradition of beekeeping. Honey bee colonies were first brought to MA by the Pilgrims in the 1620's. Dr Lorenzo Langstroth was in residence at a parsonage less than 15 minutes from the conference site. He wrote *Hive and Honeybee* and discovered "bee space" while living here. There is a plaque at the site that you can visit.

The University of Massachusetts is our state's only land grant university. Try to set aside some time to wander the expansive campus (1,463 acres) and see some of the ongoing agricultural research in the many fields. UMass has a center of Agriculture, Food and the Environment and the Massachusetts Department of Agriculture (MDAR) has one of its state Apiaries on site, as well.

In addition to the many outstanding keynote presentations and afternoon sessions, there are 5 hands-on workshops- Honeybee Microscopy, Cooking with Honey, Honey Show Judging, Queen Rearing, and Honey Bee Photography. The EAS apiary will be open each and every day with the EAS bee wranglers plus the MDAR apiary crew.

The University has been rated #1 in campus food for the last 7 years by the Princeton review- so bring your appetite. There are also many charming local restaurants in the area.

The Amherst community is located in the lovely Pioneer Valley of Western MA. It is a diverse and dynamic community that offers many cultural, recreational, and educational opportunities. Consider expanding your stay in the area- you won't be disappointed.

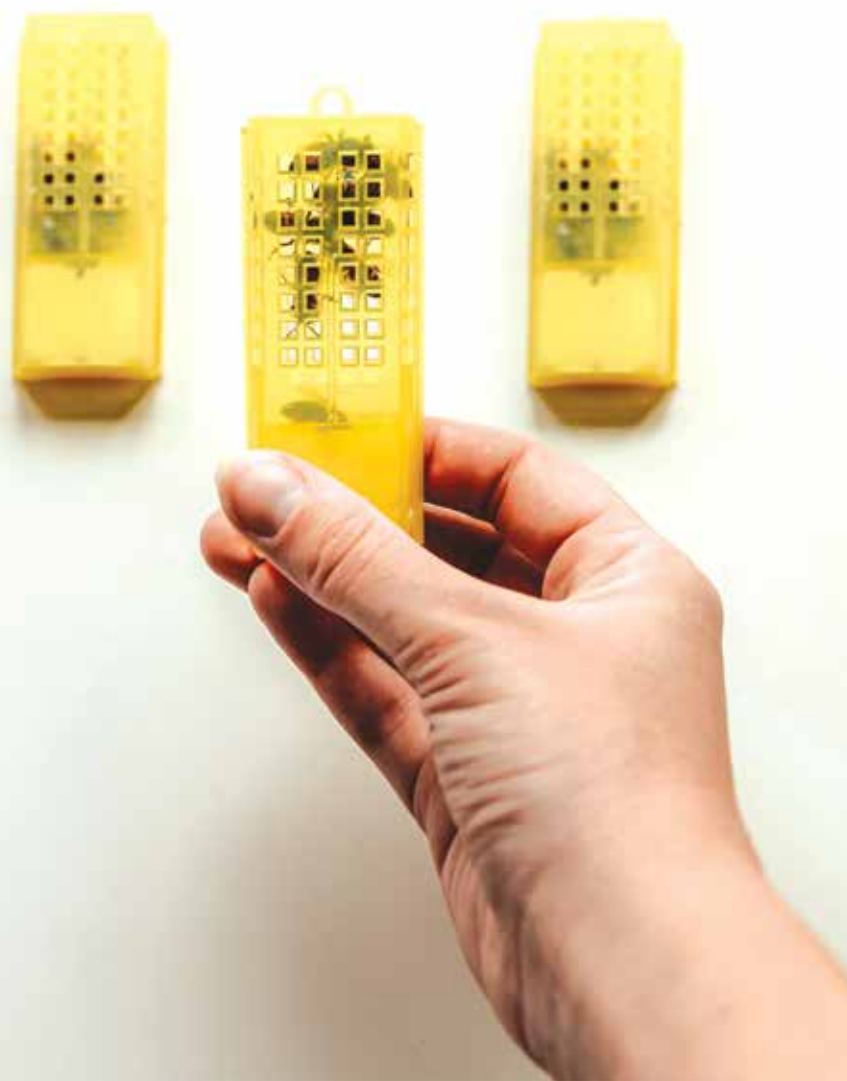
Be sure to get your EAS membership up to date so that you will be able to get the first notifications about registration and workshop sign ups.

I am so looking forward to talking Bees with like-minded EAS folks!

Sincerely,



Mary Duane
President EAS





FEATURED ARTICLES

A Glimpse of Massachusetts Beekeeping History

Dr. Dan Conlon

*President of the Franklin County Bee Association / Past President of the Massachusetts Beekeepers Association
Warm Colors Apiary
South Deerfield, MA.*

Massachusetts has a long history with the honeybee and beekeeping. At this year's EAS conference, the theme will be the past, the present, and the future of beekeeping. References to honeybees can be found in historical documents written in the 1600s. The Massachusetts Beekeepers are planning to remember our four hundred years of honeybee history, review the present challenges, and consider the future possibilities for beekeepers. Our President, Mary Duane, and the conference planning committee invite you to join us as we celebrate beekeeping's beginning and the importance of honeybees today.

The honeybee in Massachusetts arrived soon after

the first Europeans. The Pilgrims in 1620 and then the Puritans in 1630 left England to gain religious freedom, and the promise of creating Governing principles consistent with those beliefs. They were promised a land of milk & honey, but there were no honeybees or cows in the new world. Europeans would import the honeybees, the livestock, and seeds of crops familiar to them from their homelands. These agricultural introductions would change the American landscape for future generations. The honeybee would become established throughout the Americas along with its European hosts.

The Puritans were led by John Winthrop in 1630 from England. Winthrop was the first Governor of the Massachusetts Bay Colony and wrote about importing honeybees to pollinate his apple orchard, produce beeswax for candles, and honey as a sweetener. His diary would reflect this as a common agricultural activity on homesteads and farms throughout the colonies.

Honeybees became a cultural, legal, and political influence in the early towns of Massachusetts. Newbury (today Newburyport) created a town apiary in 1640. Salem would have the first civil court case in 1641 to settle a dispute of ownership over a swarm. The value of a "stand" of bees continued to be high at 5 English pounds. Honey and maple syrup continued to be the primary sweeteners and by the late-sixteen hundreds many town records showed 1 in 4 farms and



Black Lady Beekeepers of the Tuskegee Institute / University of Massachusetts Amherst Library

BEESWAX REMAINED A VALUABLE COMMODITY EASILY TRADED FOR SUPPLIES AND GOODS NOT AVAILABLE IN THE COLONIES.

homesteads kept 1-2 bee colonies.

Ship manifests listed honeybees as cargo from England. The first honeybees were the Black Bees commonly found throughout Europe and they appeared in the colonies between 1630 – 1633, with additional honeybee orders listed in 1633 – 1638. Many of the bees would perish during the voyage from England. Those surviving the trip flourished in the new world rapidly expanding their range along with the colonists' movement westward. In 1638 John Josselyn wrote in a Voyage to New England "The honeybees are carried over by the English and thrive there exceedingly".

The Black Bee would remain the honeybee of the U.S. until its decline in 1859. Susceptibility to American Foulbrood and the awareness of more manageable races of bees would eventually replace them as the primary honeybee. During the 1670s honeybees and beekeeping would see a steady decline that lasted nearly thirty years. With increasing availability of sugar and its lower cost, plus difficulties maintaining healthy bee colonies, keeping bees had lost some of its value as a source of farm revenue.

By the 1700s keeping honeybees had returned as beeswax and honey continued to be valuable for products and trade. The Black Bee was well established as feral colonies making hunting for or bee lining a popular source of bees. The bee skep, hollow trees and wooden boxes were used as hives. They were often located outside the kitchen door for easy harvest of honeycomb to be squeezed for its sweet reward. Beeswax remained a valuable commodity easily traded for supplies and goods not available in the colonies. A report in 1730 estimated average yields to be 20 pounds

of honey & 2 pounds of wax per colony. Honey was used for cooking, and beer making. Farmers used honey to make small beer for ships. It was a profitable business selling this low-alcohol beer as a substitute for water. It did not spoil preserving a drinkable source of liquid on long voyages and the sailors stayed sober.

During the Revolutionary War honey along with maple syrup saw increased value when the English blockades restricted sugar imports to the colonies and smuggled sugar became too expensive. Honey production was limited by the size of the skeps or boxes, and the need to destroy comb to yield its honey. Beekeepers were rethinking this destructive comb harvesting. Honeybees had played a continuous role in colonial life and during the first two hundred years of settlement. Although keeping bees was a common practice on farms and homesteads, apiculture lacked the behavioral and biological understanding necessary to use management as a tool.

THE BIRTH OF MODERN BEEKEEPING

Disease and pests were showing up from Europe. An 1806 article in the Boston Patriot announced the arrival of wax moths. The story declared the destruction of apiaries in

Massachusetts. American Foulbrood would also arrive and decimate the black bees eventually leading to beekeepers seeking honeybee races to replace them. The 1830s began a new age for beekeeping in the United States. Education and research would use science and observation to advance apiculture as a business. Massachusetts would pass the first beekeeping laws and

appoint the first State Bee Inspector.

Massachusetts had been settled for two hundred years and honeybees continued to be important to agriculture. Beekeeping was still a cottage agriculture activity and limited by its lack of useful management. The 1800s had brought Massachusetts new industry, machines for manufacturing, and the transition away from being a rural and agricultural economy. Increasing production and availability of goods would mark the start of the industrial revolution. Massachusetts with its abundance of streams and rivers to power water wheels became the urban centers and cities for this revolution. Beekeepers were now becoming inventors from non-agrarian backgrounds.

The best-known beekeeper today is Lorenzo Langstroth. A minister educated at Yale University in New Haven. His discoveries and writings would lead to the removable frame hive designs still used today. It was his discovery of the bee space that would change how beekeepers designed hive parts. The building of frames leaving gaps no wider than 3/8-1/4 inch would minimize the bees' excessive gluing together with propolis and wax. Beekeepers could reuse wax and frames, advance their knowledge of honeybee behavior leading to a system of seasonal management. This would save him a place in the Inventors Hall of Fame.

The invention of the extractor, smokers and beekeeping tools would follow, making the removable frame hives the preferred system of managing honeybees. Eventually this would lead to the production of larger honey crops and an income producing business for beekeepers. Gleanings in Bee Culture and the American Bee Journal would print and debate the fine points of apiculture. State and National Bee Associations became the places for intellectual and practical ideas for bees, equipment, and management.

Lorenzo Langstroth's discovery of the bee space would become the essential measurement for a successful removable frame hive design. The removable frame gave beekeepers access into the bee colony and the ability to observe bee behavior. This accelerated scientific understanding could be applied to management and elevated bee culture to an art. This would create a new industry of invention and manufacturing of beekeeping equipment and supplies. Although Langstroth lived in other places, it would be Massachusetts where his love of honeybees began.

Langstroth received his first honeybee colonies while

serving as the Pastor of the Congregational Church in Andover, Massachusetts in 1837. He would spend his life studying and observing honeybee behavior. He would eventually move to Greenfield, MA. to become pastor of the Second Congregational Church. He would also found a school for girls next to the church. During his time in Greenfield, he continued studying and testing methods of apiary management with the goal to make beekeeping a profession and honey a commodity that could provide income and support beekeepers. He returned to Philadelphia between living in Greenfield. He would spend most of his adult life off and on living in the Greenfield, MA. area eventually moving to Miami, Ohio.

Langstroth would discover the bee-space while living in Greenfield, MA. and apply for the patent on his beehive design. He would complete his first draft of the Hive and the Honeybee in Greenfield in 1852. Sending his handwritten text to his wife, still living in Philadelphia, to edit and rewrite the finished chapters. The first edition was published in Northampton, MA. by Hopkins, Bridgman & Co. press 1853. Langstroth's ability to observe honeybees and draw intelligent conclusions was remarkable and his book still has relevance today.

Although best known as the father of modern beekeeping, Langstroth contributed continuously to improving the techniques for managing honeybees. Langstroth was among many who tried to import



Monument to Lorenzo Langstroth outside the Second Congregational Church Greenfield, MA.

honeybees from other parts of the world. Many attempts to bring honeybee races to the U.S. were unsuccessful. They did not survive the long trip by ship or proved unacceptable to beekeepers.

The favorite was the Italian honeybee known for its agreeable temperament and lower susceptibility to most disease and its honey production. Langstroth would eventually become a Queen breeder and seller of Italian bees. He is credited with providing the first surviving imported Italian Queen to William W. Cary of Colrain, MA. In 1860. Cary successfully raised the first Italian Queens and provided the Italian breeding stock to the Department of Agriculture and many apiaries on the east coast. Cary's Queens would eventually go to the mid-west and California. Cary's home is still standing in Colrain, MA.

There were other notable beekeepers helping to advance bee culture. Henry Alley of Wenham, MA. was the first to describe Queen rearing using strips of fresh comb 1883. Doolittle would refine Alley's technique and eventually be credited with the idea, but Alley had published several books and publications years before Doolittle and deserves at least shared recognition for this historical advancement.

BEEKEEPING AT THE UNIVERSITY OF MASSACHUSETTS

The 2023 EAS meeting will be on the University of Massachusetts, Amherst Campus. This will be the third time Massachusetts has hosted EAS. Past conferences included Mount Holyoke College, Hadley, and the Maritime Academy, Cape Cod. The Amherst campus is surrounded by rolling hills, farmland, and history. The University has been recognized as having the best food by the Princeton Review of U.S. and Canadian Colleges & Universities for six consecutive years serving 50,000



Beekeeping class on Sunset Avenue, Amherst. The man in the top left corner is instructor James Fitts Wood. c. 1903.



Delivering bees to Cold Springs Research Orchard, Belchertown, MA.

meals daily. It is home to the Stockbridge School of Agriculture, and is well known for its business program, medical research, technology, and science. Research on pollination, integrated pest management and native pollinators are current projects within the entomology department. Cold Springs Orchard maintains 500 varieties of fruit trees and bushes for research and release to fruit growers. UMass is an international center for academic study and its student population represents countries throughout the world.

UMass began as the Massachusetts College of Agriculture in 1863. Three hundred and thirty acres were dedicated to the College as a part of the Morrill Land-grant Colleges Act. The first class of 54 students started in 1867. Beekeeping classes were taught as short courses in the 1870s by Alonzo Bradley Esq., President of the Massachusetts Beekeepers Association. These courses are considered the first instruction on bees and beekeeping offered by any agricultural college in the country. It began a continuous academic curriculum that included honeybees and beekeeping until the 1970s.

Mass Aggie as the students called the college would attract many pioneers in beekeeping. James Fitts Wood, one of Lorenzo Langstroth's apprentices, would lecture on beekeeping until his death in 1905. He became known in the apicultural community for his Queen rearing and development of a gentle strain of Italian Bees.

The idea of beekeeping, thought of as a hobby, was now considered a new side business in agriculture. This would lead the college to move toward more apiculture training and research. The first building constructed solely for the purpose of honeybee study and pollination research was the Apiary Laboratory. The Apiary building was finished in 1911 and cost \$3000. The Apiary was equipped with the

most modern research tools at that time and considered a state-of-the-art facility. It was also in 1911 that the Massachusetts State Legislators passed a bill establishing the first “state apiary inspector”. Dr. Burton N. Gates would become the first Bee Inspector. Dr. Gates had been instrumental in the MAC beekeeping program from 1906 – 1910 as a lecturer and Professor of the Apiary.

As the Massachusetts Apiary Inspector and a MAC faculty member Gates would run the Apiary as a research laboratory, and extension service to the state of Massachusetts. He hired John L. Byard in 1913 as superintendent of the Apiary to maintain and manage the growing bee yard and its 50 colonies. Byard would continue to improve the beekeeping program and develop the superintendent’s duties until his death in 1920. Gates would serve as President of the National Beekeepers Association 1913-1914 and host two national conventions in Amherst. In 1918 Professor Gates would leave MAC for a professorship at the Ontario Agricultural College in Guelph.

The Apiary’s work continued with the leadership of several faculty members until Frank R. Shaw was hired in 1931. Shaw had worked as assistant entomologist to the colleges experimental station. He would finish his Ph.D. at Cornell University in entomology in 1935, the same year he was made Instructor in Economic Entomology and Beekeeping at MAC. Shaw made many contributions to beekeeping including a comprehensive list of Massachusetts Nectar & Pollen plants (still used today). He co-authored a textbook with John Eckert (UC Davis) that was published seven times 1960 – 1977. He would be the last Professor of Beekeeping when he retired in 1969. The University abolished the position, and the Apiary would shift its focus to studying mosquito control and orchard pest management.

The Apiary is still on campus and can be found in the residential section of the University. It is not an impressive building but it’s contribution to early research in pollination from the 1920s to the 1970s, and many milestones marked by beekeeping publications make

it a historic site to beekeepers. Experiments included wintering colonies in its basement, pollination of cranberries and cucumbers, studies to determine requirements for nectar production in plants. Today it is being used to study the decline in native pollinators.



Burton Noble Gates – First Bee Inspector & Professor of the Apiary

Massachusetts Beekeeping today is strong and visible throughout the state. We boast ten county bee associations with an estimated 4000 beekeepers. Our Apiary Inspection Program provides on-going workshops and training, monitors bee health and regularly updates state beekeepers on disease and bee related concerns. County bee associations offer bee schools, as do Community Colleges and several of the larger Universities. Massachusetts is not known for its large honey crops, or commercial beekeepers, but we produce a variety of honeys distinct to the Northeastern region. Most beekeepers manage a few colonies for their personal use and average honey production is 50-60 lbs. annually. There are a handful of commercial apiaries that provide pollination and supply local honey. With 7200 small farms there is room for beehives and most towns have right to farm laws that include protection for beekeepers. Public awareness has remained high because of so many beekeepers and associations staying connected to schools, fairs, and political events involving honeybees.

We hope EAS members will join us July 31st – August 4th at the University of Massachusetts. Come for the history, the scenery, and the bee talk. Beekeeping is in our history, and we are pleased to be sharing it with our beekeeping friends and the community.

**EASTERN APICULTURAL
SOCIETY’S ANNUAL
CONFERENCE & MEETING**

SAVE THE DATES: July 31st – August 4th, 2023.

**LOCATION: University of Massachusetts,
Amherst Campus**



MASTER BEEKEEPERS

An Interview with Cory Stevens, EAS Master Beekeeper

Submitted by Cathy Misko, Centerview, MO., EAS Certified Master Beekeeper, MO State Beekeepers Legislative Liaison, Johnson County MO Beekeepers Assn. President, and Heartland Beekeeping Partnership, Founder.

My telling of meeting Cory Stevens for the 1st time may shock even Cory when he reads this. It was 2010, when attending the Missouri State Beekeeper Fall Conference, Cape Girardeau, MO. I was detained with some auxiliary duties and snuck into an ongoing lecture with my notebook ready to take jots. I heard the fella say, "Well, if the bees are crashing then I just let nature take its course." My Mama's heart could not take it. Very slowly, I closed my note book, raised up, and exited the room thinking, "Oh, he is one of those 'let live and let die' beekeepers". I finished out the conference hanging on to every word from Michael Palmer and David Burns but unfortunately, I did not give that young buck, Cory

Stevens, my time. I had no idea of his admirable vision and regret my rash judgement. I later learned that as a 4-year beekeeper with a focused passion to find solutions for the varroa mite, Cory inspired others in that room to do the same. "If that young beekeeper can graft and produce quality queens, so can I," experienced beekeepers exclaimed.

It did not take too long before Cory Stevens had my attention and highest respect. Like walking out on the water with a vision and muscle, Cory had a plan and determination to prove that genetics is the answer to our varroa tragedy. I have since sponsored Cory Stevens for "Hands-on" Queen Rearing Workshops. I treasure my Stevens Bee Company Varroa sensitive Hygiene (VSH) Virgins, which have opportunity to mate with local drones carrying potential survival genetics. I have great hope that my bees will also help change the state of varroa induced disease and colony mortality. I enjoy organizing bulk

orders of Cory's VSH queens and then being the royal chauffeur to deliver potential varroa resistant genetics to various beekeepers in my area. Thank you, Cory, for taking time to give us a peek into your beekeeping adventure, into your scientific search for a more sustainable means to being, "a keeper of the bees".

Cory Stevens comes to us from his 27- acre farm in Bloomfield, MO, which he manages for both wildlife and pollinator habitat. Cory and his wife Jaime own Stevens Bee Company where they select for mite resistant VSH stock. Cory is a Past President of Missouri State Beekeepers Association, and earned a MS in entomology from the University of Lincoln, Nebraska. He was certified as a Master Beekeeper by EAS in 2013, and trained by Sue Cobey in 2014 to instrumentally inseminate queen bees. Like a true fanatic, Cory slips bees into random conversation with strangers, and annoys his wife by constantly talking about bees.

How did your honey bee addiction begin?

"My Mom always told me that I should be an entomologist because of my fascination and interest in insects at a young age. My Dad and brother got a hive but maybe because of the heat, maybe the stings, they did not stick with beekeeping. I, however, was hooked the moment I looked into the colony!"

What does a day in the Cory Stevens' Apiary look like?

"A day in Cory Stevens' apiary is a busy day. My wife says I hate relaxation, she may be right! (Of course, she is right Cory!) Seasonally our bees are a full-time job, on top of

I BECAME OBSESSED WITH BREEDING BEES FOR KNOWN RESISTANCE TRAITS. I KNEW HOW MULTIPLE MATING AFFECTS TRAIT SELECTION, AND THEN FIXATED ON INSTRUMENTAL INSEMINATION.

my full-time job. I take off every Monday April - June. We start raising queens when the bees start raising queens and stop when they stop. (In other words, when they are in the mood.) VSH testing is normally done mid-April. On a normal spring we raise 2,000-2,500 queens for use and for sale. Once our weekly queen rearing schedule is rocking, we start a weekly drone

collection and insemination schedule. The instrumental insemination schedule and the queen rearing schedule mirror each other, as timing is essential for success. We graft from our wintered, and multi-year old instrumental inseminated breeder queens, and inseminate their daughters with drones from high SMR/VSH tested colonies. These instrumental inseminated queens are introduced into their own colonies to expand and be tested the following year for outstanding performers. This is all accomplished in an untreated operation that utilizes a variant of a Page-Laidlaw closed population breeding model. We usually harvest honey once per year in late August, for sale locally."

Why and how did you get started with artificial insemination?

"All I heard about in my early beekeeping career was how mites were destroying our honey bees and not much has changed today. I became obsessed with breeding bees for known resistance traits. I knew how multiple mating affects trait selection, and then fixated on instrumental insemination. I think the allure of how difficult it was and that no other beekeepers I knew had mastered it, also added appeal. I like working towards difficult goals, with great rewards."





I'M A HUGE ADVOCATE OF HABITAT RESTORATION AND EXPANSION. THAT ALONE WOULD SOLVE A LOT OF OUR POLLINATOR ISSUES WITH HONEY BEES AS WELL AS NATIVES.



I understand that you temporarily anesthetize the queen with CO2 when applying her tag. How long is she knocked out, and do you only tag breeder queens? How many tags have been applied to date?

"I would say about 2 ½ to 3 minutes total. The queens are gassed first for the insemination procedure and then wing clipping and tags are applied while they are still out. While groggy, I place them into a cage to fully wake up. Only the breeder queens are tagged, numbers on tags repeat with each new international color code, and I tag about 100 breeders a year."

What are some pros, cons, struggles, and thrills of what you do?

"I love being in nature and learning through observation. I get to work with amazing creatures to achieve mutual goals. The cons would be the struggle for profitability, which is common in agricultural ventures, and striving to make a solid living exclusively from bees. There are plenty of struggles in beekeeping, as the odds seem stacked against us from varroa and continual habitat/forage destruction. Keeping bees isn't easy and has its share of heartbreak, but I'm not interested in easy goals."

Are you currently involved in a research project?

"We are trialing unhealthy brood odor (UBO) for the University of North Carolina Greensboro with Kaira Wagoner this year. I'm excited to see how our SMR/VSH bees score on a UBO assay, and I'm quite excited about what data and new information that will yield. I'm instructing instrumental insemination for Penn State's Education About Production and Insemination of Queens (EPIQ) program this year, and look forward to more collaborative projects and potential published literature."

Will you share your personal and professional inspiration?

"I have several inspirational individuals in mind. Tom Glenn helped fuel my obsession with strong host resistant traits. I saw first hand how much better high expressing VSH stock handled mites as compared to random commercial sources. His breeding operation influenced me immeasurably, though I've never even spoken to him. But would sure like to!! Sue Cobey was also a hero of mine, and an expert in the field of instrumental insemination. I wanted to learn from the best, and was blessed to be able to spend time with her to learn from her decades of experience. She has been kind enough to stay in contact and provide me sound advice, and important instrumental insemination items that are difficult to find. Another hero of mine would be Walter Rothenbuhler. Reading some of his early work had a strong influence on my desire to breed for resistant traits as well. He was ahead of his time, and a true scientist. I'd also like to mention John Harbo. Without his and other's work at the USDA, we may not even be aware of Suppressed Mite Reproduction (SMR)/VSH mechanisms. His work has been a game changer for me, and has laid a strong foundation to build on."

What is your future vision and goals?

"I am looking to leave my day job in corporate transportation for Nestle Purina in March of 2024. I'm very excited, and terrified at the same time. I feel the bee business has grown to levels that I can reasonably expect not to starve to death, so I'm making the move. I want to do what I love and pour my soul into it. I'm working on a network breeding model that is starting small with some commercial beekeeping friends this year. They will trial daughters from Il'd breeders I send to them on a large scale. They will then send back the high performing F1 daughters upon splitting the following year. I will hive them in nucs, and SMR/VSH test them after a couple months. This will vastly widen my selection pool and add commercial pressure to our



closed population. Top performing F1's that score high on a Harbo assay will then be used as drone production for the subsequent generation of Missouri Mite Hunter breeder queens."

I have been salivating while watching your pollinator habitat regeneration on your property. Will you share about it?

"I'm a huge advocate of habitat restoration and expansion. That alone would solve a lot of our pollinator issues with honey bees as well as natives. They have to eat properly, or nutritional stress opens them up to loads of issues including pests and pathogens. On our 27-acre farm we have 14 acres planted in diverse native wildflowers. Around the wildflower plot that makes up the center of the farm, I have planted between 1,500 to 2,000 native trees and shrubs, mostly nectar and pollen producing varieties. I'm a wildlife biologist at heart, though officially an entomologist, and gain a lot of satisfaction looking at everything I've planted and how it's growing. I've found my wife isn't concerned as much with what I've planted and where it's at. LOL! I'd like to expand my farm, God willing, and continue to improve it as rich habitat for pollinators and other wildlife."

What new native plants and animals have grabbed your heart since you started the habitat restoration?

"I really love the compass plants in my wildflower patch. They hide for years and only show their unique leaves, then surprisingly have enormous flower stalks! The whitetail deer absolutely love the flowering forbs. We found multiple endangered Southern Plains Bumblebees as well, and documented them on iNaturalist. Pretty awesome!" (Cory's Southern Plains Bumble Bee photo was selected to be used as the cover photo for The Xerces Society's Bumble Bee web series.)

I imagine your house can get pretty loud with piping queens. Can you tell me a "Queens Sing" story?

"Oh, yes, I can! I have learned to not keep the queens in the bedroom. They like to start their 'piping party' about 2 in the morning!"

Cory, you were quite young when you achieved your EAS Master Beekeeper. How has the process or certification benefited you?

"I think most beekeepers know that EAS Master Beekeeper is a tough program to pass. I'm sure it has helped my street cred when speaking and teaching classes. I'm proud to be an EAS Master Beekeeper."

I know that you have been raising a family, went back to college, work a full-time job, and work full time with bees and research, will we get to see you at a future EAS Conference?

"I sure hope so, I've been wanting to visit. I'm planning to go full time beekeeping next year, so hopefully that frees up my calendar to some degree."

If you could give me one recommendation for other beekeepers, what would it be?

"To beekeepers in general, I recommend raising their own queens. Producing and selling honey is cool. But, when you open up a large productive colony with really nice brood, there is more than a rush. There is gratification. There is a sense of accomplishment. To be self-reliant and not be fully dependent on outside resources, there is great satisfaction."

You can contact Cory Stevens and the Stevens Bee Co. online at:

🖱 www.stevensbeeco.com

📺 @stevensbeeco767



NEWS AND UPDATES

2023 Research Award Winners

DR. JULIANA RANGEL: *Genetic diversity and populations structure of Varroa destructor across the U.S., and potential implications for Amitraz-resistant mites. \$8,500.00*

Born in Colombia, South America, Juliana obtained a B.S. in Ecology, Behavior, and Evolution in 2014 from the University of California, San Diego. In 2010 she obtained a Ph. D. in Neurobiology and Behavior from Cornell University in Ithaca, NY, working with Dr. Tom Seeley. She was a National Science Foundation Postdoctoral Research Fellow from 2010 to 2013 working with Dr. David Tarpy at North Carolina State University. In January 2013, Juliana became Assistant Professor of Apiculture in the Department of Entomology at Texas A&M University (TAMU) in College Station, TX and was promoted to Associate Professor with tenure in 2018. Her research program focuses on the biological and environmental factors that affect the reproductive quality of honey bee queens and drones, the behavioral ecology and population genetics of unmanaged honey bees, and the quality and diversity of honey bee nutrition in a changing landscape.



DR. ESMAEIL AMIRI: *Evaluating the pheromone profile and acceptance rate of queens raised in different commercial queen cell cups. \$2,620.00*

Esmail Amiri is an Assistant Professor at the Department of Biochemistry, Molecular Biology, Entomology, and Plant Pathology at Mississippi State University (MSU). He is currently housed at the Delta Research and Extension Center in Stoneville, MS, and has research and extension responsibilities in pollinator health. Prior to his academic career, Esmail worked as a migratory professional beekeeper in Iran while pursuing his undergraduate studies. In 2008, he received a scholarship from the European Union to travel abroad and further his education. This coincided with the emergence of Colony Collapse Disorder (CCD), so he decided to study honey bee viruses, one of the main drivers of colony mortality. Dr. Amiri earned his doctorate degree from Aarhus University in Denmark and later joined the honey bee research collaboration team in North Carolina to investigate viral infections and immune responses in honey bee queens. He has since expanded his research focus to include studying queen plasticity, development, and reproduction quality, to better understand the effect of stressors on queen health. In recent years, introducing new queens into colonies has become a challenge among breeders. As a result, Esmail intends to evaluate the pheromone profile and acceptance rate of queens raised in different commercial queen cell cups.



Lee Heine 'Good People' Award

The Wisconsin Honey Producers Association is proud to announce a new national award entitled, the **Lee Heine 'Good People' Award** in honor of Lee Heine, a longtime friend and leader in the beekeeping industry who passed away in 2021 after a courageous battle with pancreatic cancer. With Lee's passing, we lost a significant figure; a friend who not only kept bees, but one who connected with many about bees, honey, and the advancement of the beekeeping industry.

Lee Heine contributed countless hours to the Wisconsin Honey Producers Association. He served in a variety of leadership capacities, including vice president, president, past president, district chairperson, and chair of multiple committees. He contributed greatly to the Association's membership, marketing, promotion, and education efforts.

Lee Heine was also a key figure in the national industry as well. He was a partner in starting youth mentorship programs in Wisconsin and Iowa. He served as the chairperson of the National Honey Board. He was the membership committee co-chair for the American Beekeeping Federation and also served for many years as a state delegate.

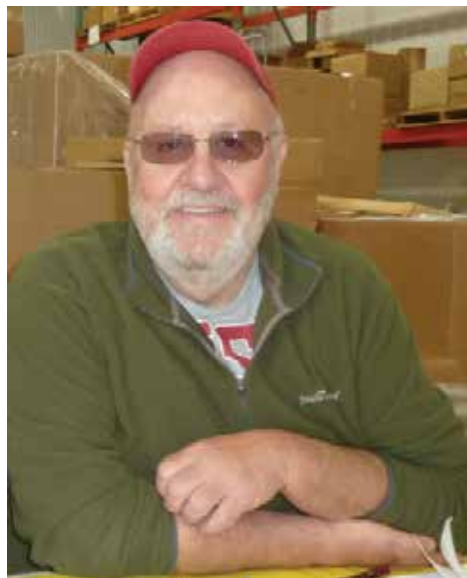
What was most significant about Lee Heine was his friendship and influence. Lee had a way of forming connections and networks that spanned the nation. He was masterful at using these connections to advance the beekeeping industry. He was skilled in forging relationships that assisted him in working with many legislators from Washington, DC to Madison, WI. He saw the spark when young people showed interest in bees, and he supported them to serve as a national spokesperson or pursue studies in entomology or become a career beekeeper. Lee understood that relationships mattered and could be utilized to advance causes, promote beekeeping, and make friends.

Lee Heine had many friends and acquaintances throughout the nation. When Lee walked into a room of people he did not know, he walked out with new friends. Lee knew how to find "good people" – a phrase he often used to describe folks who would do the right thing or be an advocate for the industry – "good people" or good friends.

This is the inspiration for the **Lee Heine Good People Award**. Lee had a magnanimous way of coalescing people around a cause, sparking interest and passion for bees, and making people care about the honey and beekeeping industry with action and impact. **The Lee Heine Good People Award** is designed to honor those who have forged positive relationships with industry members and who have taken on the beekeeping industry's causes, **but are not beekeepers** or working in the beekeeping industry.

Since Lee's influence was felt nationwide, nominations are open nationwide. Think of those who are advocating for honeybees beyond direct involvement in beekeeping – educators, legislators, nonprofit organizations, for-profit companies, municipalities, volunteers, journalists, or anyone who has connected to the beekeeping industry in a unique way. This award is open to anyone in the United States.

Nominations open June 1 and with a deadline of September 30. Visit the Wisconsin Honey Producers Association website www.wihoney.org, for additional details.



Notes from the Lab: The Latest Bee Science Distilled

By Scott McArt as published in *American Bee Journal*, December 2022



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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Honey bees practice social distancing when infested with varroa

Imagine most readers of this article are tired of social distancing. Our human world did plenty of social distancing in 2020 and 2021, and at least some people still practice some amount of social distancing in 2022. But most people are tired of it.

But as sobering as it is to admit, social distancing for us humans does indeed work in the face of disease. I have two small children who were admirably diligent about social distancing between April 2020 and December 2021; I never got a single sickness from them during that 1.5-year span. What's happened since Decem-

ber 2021 as we and nearly everyone else has started to relax our social distancing? I've been sick about once every two months. Yes, social distancing works for us humans.

What about honey bees? Do they practice social distancing in the face of parasites or disease? If they do, how do they do it given the incredibly dense bee populations within colonies? Are there particular behaviors or ways they organize interactions within hives that change in the face of parasites or disease? These are the topics for the sixtieth *Notes from the Lab*, where I summarize "**Honey bees**

increase social distancing when facing the ectoparasite *Varroa destructor*," written by Michelina Pusceddu and colleagues and published in *Science Advances* [2021].

For their study, Pusceddu and colleagues conducted two types of experiments: whole-colony observations of varroa-infested vs. varroa-free colonies (Photo 1, Figure 1) and high-resolution observations in metal hoarding cages using small groups of individually tagged bees assembled from varroa-infested vs. varroa-free colonies (Photos 2 and 3).

For the whole-colony observations, three varroa-free colonies (average infestation level 0.1%) were obtained by treating colonies with oxalic acid every week for three consecutive weeks, starting two months before the observations. These varroa-free colonies were compared to three varroa-infested colonies (average infestation level 6.2%) obtained by allowing varroa levels to grow naturally without treatment. Colony strength was balanced in both experimental groups by removing brood frames from the strongest colonies.

Behavioral observation videos were made on varroa-free and varroa-infested hives using four high-definition cameras, two for each of the two observation hives being compared simultaneously (Photo 1). For three consecutive days, each colony was recorded for three 15-min sessions (morning, afternoon, and evening) between 10:30 a.m. and 6:30 p.m. Observations of dancing and allogrooming were made on two types of comb: one taken from the central

Michelina Pusceddu



Photo 1 The whole-colony observation hive setup used to monitor behaviors of bees in varroa-infested vs. varroa-free colonies.



Photos 2 & 3 Small metal hoarding cages with bees and mites obtained from full colonies were used for observations of allogrooming, antennation, trophallaxis, and social network analysis.

part of the nest (central frame) and the other taken from the sides of the hive (lateral frame). One hour before starting the video recording, selected combs were placed behind the glass windows of each hive. Moving the central combs to a lateral position for the time necessary to do video shoot-

ing should not alter their status of "central combs," as numerous previous studies have shown that foragers mark the positions of combs where they perform dances after the first foraging flights and return to the same positions to repeat them during the rest of the day.

For the high-resolution behavioral observations in metal hoarding cages, bees were obtained from nine varroa-free colonies and mites were obtained from nine varroa-infested colonies that were treated with oxalic acid (or not) in an identical manner to the colonies used for whole-colony observations. Newly emerged adult workers and mites were harvested from capped brood frames, individually tagged, and placed in groups of 12 bees in each hoarding cage (Photos 2 and 3). For each bioassay, groups of 12 varroa-free bees were compared to groups of varroa-infested bees where six of the 12 bees were parasitized and the other six bees were not parasitized. Frequency of antennation, trophallaxis, and allogrooming was monitored for 20 minutes in each experimental cage.

So, what did they find? Do foraging bees alter behaviors when infested with varroa? Yes. As seen in Figure 2, foraging bees altered the location where they performed dances (round and waggle) when infested with varroa. When colonies were free of varroa, foraging bees danced throughout the colony; they did not show a preference for dancing on central vs. lateral frames (left two bars of Figure 2). Conversely, when colonies were infested with varroa, foraging bees danced on lateral frames to a

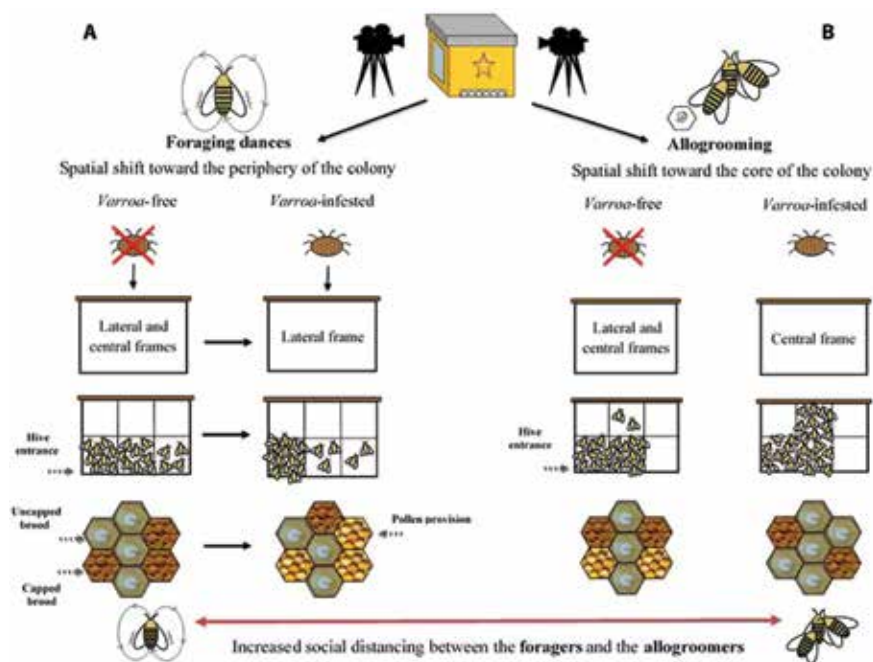


Fig. 1 Induced organizational immunity in varroa-infested vs. varroa-free colonies. Schematic shows the spatial shift in foraging dances (A) and allogrooming behavior (B) observed in the whole-colony experiment.

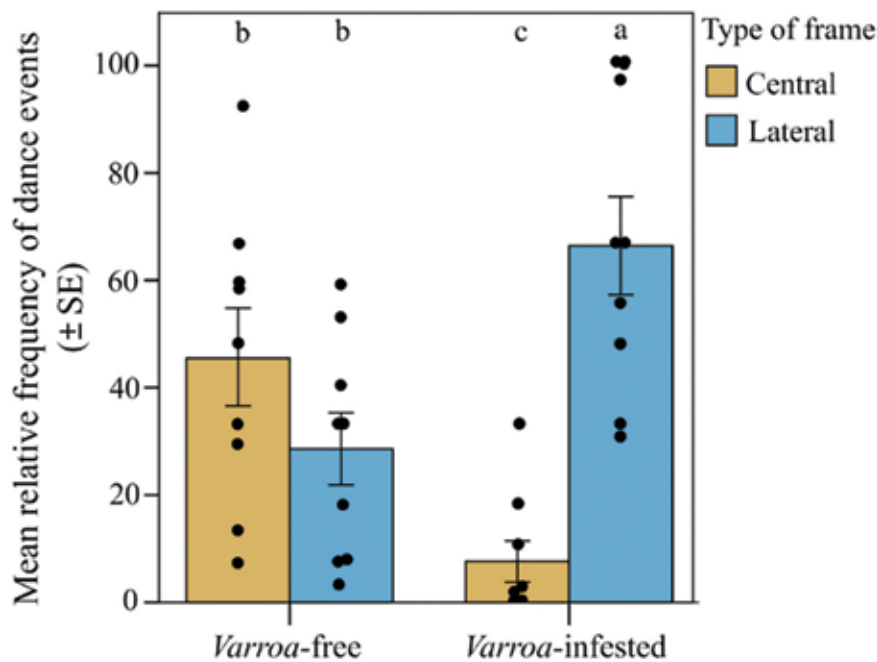


Fig. 2 Spatial shift in foraging dances. Relative frequency (mean \pm SE) of dance (round and waggle) events per hive and day of observation detected in varroa-infested vs. varroa-free colonies depending on the type of frame (central or lateral). Bars with different letters are significantly different ($P < 0.05$).

much greater extent (right two bars of Figure 2). In other words, dancing foragers practiced social distancing by avoided the central brood nest area when the colony was experiencing elevated parasitism by varroa.

What about grooming bees? Do they alter behaviors when infested with varroa? Yes. As seen in Figure 3, bees were more likely to perform al-

logrooming in the central brood nest area when infested with varroa vs. varroa-free (compare the right two bars to the left two bars in Figure 3). In other words, in concert with the social distancing of dancing foragers, grooming to identify and remove mites was increased in the central brood nest area when the colony was experiencing elevated parasitism by varroa.

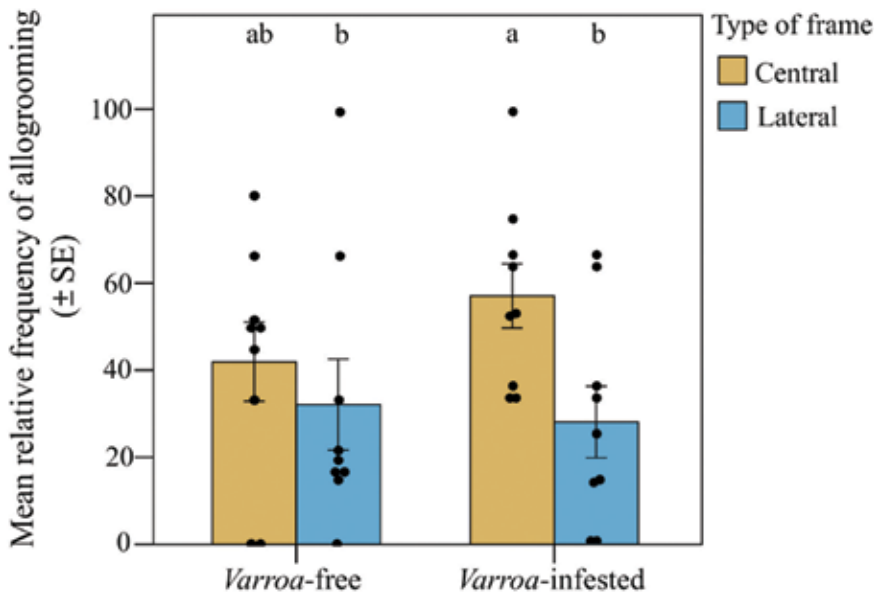


Fig. 3 Spatial shift in allogrooming behavior. Relative frequency (means \pm SE) of allogrooming events per hive and observation day detected inside the nest in varroa-infested vs. varroa-free colonies depending on the type of frame (central or lateral). Bars with different letters are significantly different ($P < 0.05$).

Well that's neat. Were differences in social interactions also observed in the groups of bees placed in metal hoarding cages? Sort of. There were some differences in allogrooming and antennation between varroa-free vs. varroa-infested bees, with varroa-infested bees receiving more antennation and allogrooming compared to varroa-free bees. However, there were no differences in trophallaxis or social network structure observed between varroa-free vs. varroa-infested bees, possibly due to the relatively contrived hoarding cage environment compared to a normal queen-right colony that contains thousands of workers, drawn comb, and other "normal" colony attributes.

So what does all of this mean? I know we're all tired of COVID. But guess what, we've learned during the past few years that if we practice social distancing, we can limit the spread of human diseases. Similarly, your bees are *definitely* tired of varroa. The study by Pusceddu and colleagues shows very nicely that bees alter their behaviors and practice social distancing when experiencing elevated threats of parasitism by varroa. Pretty cool, right?!

An obvious next step for this research is to test whether social distancing limits transmission of varroa and ultimately suppresses disease in honey bee colonies. If so, I wonder if some colonies are better at practicing social distancing than others, and whether this is a trait that can be selected for in breeding operations. Clearly, there's plenty of exciting work to be done on bee social distancing in the future.

Until next time, bee well and do good work.

Scott McArt

REFERENCES:

- Pusceddu, M., A. Cini, S. Alberti, E. Salaris, P. Theodorou, I. Floris & A. Satta. 2021. Honey bees increase social distancing when facing the ectoparasite *Varroa destructor*. Science Advances 7(44):eabj1398. <https://www.science.org/doi/abs/10.1126/sciadv.abj1398>





UPCOMING CONFERENCE

Welcome to Amherst, Massachusetts!

by Linda Mizer

This summer, the UM Amherst opens its campus to the EAS 2023 Conference, from July 31st to August 4th. This will be a full week of exchange of bee knowledge, workshops, apiary experiences, speaker presentations, day trips, dinners, comradery and opportunities to visit vendors.

Speakers include Bob Binnie, Dr. Rachael Bonoan, David Burns, Dr. Dewey Caron, Megan Denver, Krispn Given, Dr. Cameron Jack, Paul Kelly, Heather Matilla, David Peck, Dr. Tammy Horn-Potter, Dr. Samuel Ramsey, Dr. Tom Seeley, Dr. Kim Skrym, Dr. Kaira Wagoner, Kirk Webster, Dr. Judy Wu-Smart and many more.

The Short Course will include a Beginner, Intermediate and Advanced – Hive Products and Beekeeping as a Business track. You may move between these tracks during and over each day. The Conference will present the latest research and advances in apitherapy and bee health. The apiary is conveniently located and will offer hands-on beekeeping relating to colony management, queen rearing and disease detection.

Specific workshops include an expanded microscopy program, queen rearing, bee-lining, honey show judging, photography, cooking with honey, wound dressing and candle making. See registration to sign up for these “events”.

Special events during the conference include: the honey show; honey exchange; online, silent and live auctions; a half-day field trip to a commercial apiary and a day visit to three local areas of interest.

As always, there will be excellent dining both on campus and within the surrounding community. Dining Around Town with fellow beekeepers is planned for Tuesday, August 2nd and Wednesday, August 3rd will feature a BBQ on campus. The Thursday dinner will be followed by the live auction and Friday will culminate in a plated banquet that will recognize the new EAS Master Beekeepers and announce this year's recipient of the Divelbiss award.

The EAS conference would not be possible without the support of our vendors.

Our vendors will have a large venue located right in the Campus Center – the same building as the short courses and lectures. This is a great opportunity to see and meet with representatives offering their latest equipment and products, and purchase products for the harvest season and winter preparation. In the vendor hall you will also find an area for authors to sign their books, and a location for the exchange of honey by our members who attend the conference. This year there will be “pop-up” daily vendors, so visit often and show your support for the companies that support EAS.

We are going to have a good time... Hope to see you there!

Stay tuned to the EAS Web Site at <https://easternapiculture.org/conference/eas-2023/>



Getting Here

TRAVEL TO AMHERST

Amherst is in the heart of Massachusetts, in Hampshire County and is conveniently accessed by Bradley International Airport (BDL) in Windsor Locks, Connecticut 45 miles/80 km from Amherst. Arrivals via Boston Logan Airport (BOS) is approximately a 2-hour drive to Amherst. Shuttles service is available from either airport by various companies:

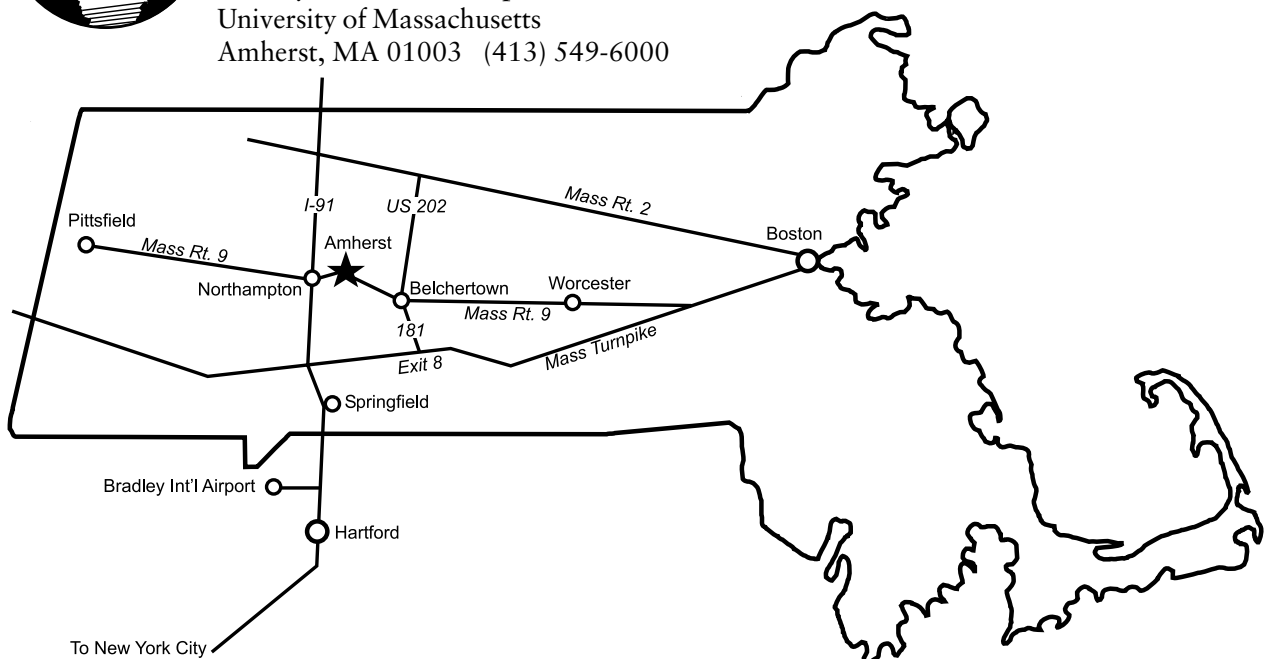
- Valley Transporter
800-872-8752

A very convenient option which provides van shuttle transportation door-to-door from the airport terminal to your residence hall or hotel. Reservations are required.

- Seemo Shuttle
413-586-1120
- Exclusive Car Service Inc.
877-695-4665
- Bluebird Transportation
413-221-4512
- Michael's Limousine & Transportation Service
800-533-8470



Murray D. Lincoln Campus Center
University of Massachusetts
Amherst, MA 01003 (413) 549-6000



Getting to the Campus Center Parking Garage ...

FROM MASSACHUSETTS AVENUE (AFTER EXITING FROM ROUTE 116)

At the second set of lights turn left onto Commonwealth Avenue - Boyden Gymnasium is on the corner of Commonwealth & Massachusetts Avenues - At the next set of lights turn right onto Campus Center Way and proceed up Campus Center Way - The entrance to the Campus Center Parking Garage is at the top of the hill on the right.

Getting to the Lincoln Campus Center ...

FROM THE PARKING GARAGE

As you enter the Parking Garage proceed down the ramp and park on Level 2. An enclosed entranceway leads directly from Level 2 onto the Campus Center Concourse (Level 2). As you enter the Concourse, you will see information signs directing you to the location of your conference registration. If you are a hotel guest and looking for the Campus Center Lobby, proceed to the left, and walk past the University Store; the elevators are on the right. The Hotel Lobby is on the third floor.

Campus parking is either in the parking garage associated with the Lincoln Campus Center at an hourly (\$1.75) or daily rate (\$8.00). Metered/public parking lots are indicated on the campus map at an hourly rate of \$1.50.

Electric Vehicles

The University of Massachusetts now offers electric vehicle charging stations. All stations are managed through ChargePoint and require a ChargePoint card/ membership to activate and use the Charging Stations.

Membership can be done on-line at www.ChargePoint.com -or- by calling ChargePoint Driver Support at: 1-888-758-4389.

The Charging Stations can be located through the ChargePoint Application, accessed at www.chargepoint.com

- Click on "FIND STATIONS"
- Enter Zip Code 01003 -or-
- Enter "University of Massachusetts, Amherst, MA" to see all stations on campus and check availability.
- Payment information can be found through the main ChargePoint webpage.

To learn more please visit <https://www.umass.edu/transportation/electric-vehicles>

UMassAmherst

GENERAL LOCATION CAMPUS MAP

June 2022

For a more detailed campus map, please visit:
my.umass.edu/campusmap

MAP KEY

- 31 Numbered Parking Lots
- P Metered/Public Parking
- ▲ PVTa Bus Stops
- EV Charging Station

2



Accommodations

Accommodations range from on campus hotel, area hotels and motels, to dormitory accommodations plus area camping.

On-campus Hotel



UMASS HOTEL

UMASS hotel reservations system was just recently updated. The new to make reservations is listed below. All reservations previously made are still confirmed and all set.

Link for online reservations: <https://www.reseze.net/servlet/SendPage?hotelid=1760&skipfirstpage=true&page=800604>

Group Number (can be used if you would prefer to call to make your reservation): 800604

Rooms start at \$169/night + tax. Parking coupons will be given out by the hotel.

UMass Dorm/Suites

NORTH APARTMENT ACCOMMODATIONS

Located in central campus, the North Apartments offer airconditioned suites with four individually locked bedrooms and two full bathrooms. Each bedroom has a single twin bed with mattress and linens (two sheets, pillow/case, and 2 towels) provided, a desk, chair and wardrobe so you can settle in for the conference. Wireless internet is provided. Each suite has a shared living room/kitchen area with a sofa, chairs, end and coffee tables, full size refrigerator, oven and range and microwave. The Worcester Market, on campus, offers products comparable to other local grocery stores including deli and bakery items and fresh produce. Each building has a laundry facility, meeting room and common area/lounge. Each room is \$75 per night. WIFI and parking are included. The registration processes provides for sharing with suite mates of your choice. Parking permits for lot #44 will be given out at registration.



Camp Vehicles

Camp vehicles that are totally self-contained may park on the UM Amherst campus at a rate of \$8 per night with parking in the North Residential Area, lot #44.

Off Campus Hotel Accommodations

EAS has blocked off rooms in 5 hotels in Hadley, MA - a 4 mile 10 minute drive from Amherst.

THE HAMPTON INN

The Hampton Inn, Hadley, MA located at 24 Bay Road, Hadley Ma 01035 has offered EAS a Block rate for rooms from 2023-07-30 to 2023-08-05. These are reserved under the group code of EAS and booking can be via the link or by calling Hampton Inn reservations at 1(844) 207-7089 and requesting the exact hotel name and the group code EAS.

Rates start at \$139 per night for a King single or two Queen and include a hot breakfast buffet, free local telephone calls, use of the heated indoor pool and fitness room, and high-speed wireless internet access.



Dates of stay can be finalized during the reservation process. The last day to make reservations for this room block is July 16, 2023

THE HOMEWOOD SUITES

The Homewood Suites, Hadley, MA located at 340 Russel St., Hadley Ma 01035 has offered EAS a Block rate for rooms from 2023-07-30 to 2023-08-05. These are reserved under the group code of EAS and booking can be via the link or by calling Homewood Suites (413) 387-0583, request the exact hotel name listed above, and group code: EAS.

Rates start at \$169 per night for a King single or Queen double and include a hot breakfast buffet, free local telephone calls, use of the heated indoor pool and fitness room, and high-speed wireless internet access.



Dates of stay can be finalized during the reservation process. The last day to make reservations for this room block is July 16, 2023 access.



COURTYARD BY MARRIOTT

423 Russel St, Hadley MA

Courtyard by Marriott offers complimentary parking and WIFI. Ten Kings and ten Double Queens have been blocked off for EAS. Deadline for reservations in June 30th. The following rates apply:

July 30, July 31, Aug 1, Aug 2 & Aug 3: \$179 plus tax
Aug 4: \$239 plus tax



COMFORT INN & SUITES

400 Russell St., Hadley MA

Comfort Inn and Suites features complementary continental breakfast, parking and WIFI. Five Double Queens and five Kings have been blocked off for EAS. Deadline for reservations is June 30th. The following rates apply:

June 30, July 31, Aug 1 & Aug 2: \$141 plus tax
 Aug 3: \$221 plus tax
 Aug 4: \$266 plus tax



HOWARD JOHNSON

401 Russel St, Hadley MA

Howard Johnson offers complimentary continental breakfast, parking and WIFI. Five Kings and fifteen Double Queens have been blocked off for EAS. Deadline for reservations is June 30th. The following rates apply:

July 30, July 31, Aug 1, Aug 2 & Aug 3: \$119 plus tax
 Aug 4: \$179 plus tax

Nearby Campgrounds



TRAVELERS WOODS NEW ENGLAND, INC.

152 River Street – PO Box 88
 Bernardston, MA 01337
 (413)648-9105
www.travelerswoods.com
TravelersWoodsNewEngland@gmail.com

Travelers Woods New England, Inc. is an easy 30 minute drive to UMass and would have sites available in the Lower Field that are water and electric hookups at \$35 per night. Full hookups which are water electric and sewer are \$40 a night. They anticipate ample availability of electric and water hookup sites versus a lesser possibility of full hookups. The campsite also has showers, washers, and dryers as well as two common sewer dumpsites.

The charming little town of Bernardston has 4 restaurants, a neighborhood market, gas station, library and more. Recreation opportunities abound. There are dozens of miles of hiking trails nearby. Kayaking, canoeing, boating and fishing are just a few minutes away on the Connecticut River. For the more adventurous, it's just a short drive to whitewater rafting, zip lining and rock climbing.



A KOA Holiday campground is also available at North Hampton/Springfield, a 35-minute drive to UMass.

Meals and More

FOOD OPTIONS

For the past six straight years, The Princeton Review has ranked UMASS Amherst as the Best Campus Food of all university campuses in the Nation!

Take advantage of UMass's Dining Services for affordable, healthy, and delicious breakfasts, lunches, and dinners by purchasing EAS/UMass meal plan cards (in \$25 or \$50 denominations). These Dining Dollars cards save you valuable time and money and can be used at all retail dining locations on campus including UMass's Campus Center which features twelve different dining retail locations and the newly opened Worcester Commons with its buffet-style globally inspired menu.

On Monday night you are on your own for dinner. You won't go hungry! You and your beekeeping buddies can visit one of the many popular restaurants near UMass Amherst, there are over one hundred and thirty to choose from! Your options include every from Fine Italian Dining, American Tavern and Breweries, BBQ, and Sushi to Family-Friendly Pizza! Vegetarian and Vegan-friendly restaurants are also available.

Sign-ups for the Tuesday night "Dining around Town" will be at the Conference registration desk with a listing of several selected restaurants in the Amherst area. Team up with your EAS friends for a great evening sharing bread and sharing bee stories.



Places to Eat in the Amherst Area

The following list is in addition to the UMass Dining Hall, which is renowned as the #1 college campus for dining and is open for three meals a day. Your UMass meal plan enables you to pay a set amount for each meal and have access to a variety of foods arranged buffet-style throughout the hall.

Key: GF - Gluten Free
V - Vegan

BREAKFAST:

- Johnny's Roadside Diner, Hadley
- Tandem Bagel Company, Hadley (Offer bagels that are gluten, dairy, nut, and soy free, as long as in stock)
- Bruegger's Bagels, Amherst
- The Works, Amherst
- Share Coffee, Amherst
- Shelburne Falls Coffee Roasters, Hadley
- The Stables, Hadley
- Cushman Market & Cafe, Amherst (Hours and days vary)
- Black Sheep Deli, Amherst
- Jakes, Northampton

LUNCH/DINNER:

- Blue Wall (at UMass Amherst)
- Osteria Vespa, Amherst
- Pulse Cafe, Hadley (GF & V options)
- Antonio's Pizza, Amherst
- Pita Pockets, Amherst (V options)
- The Works, Amherst
- Garcia's, Amherst
- The Halal Cart, Amherst (Typically parked in front of Pita Pocket)
- Hot Table, Hadley (GF & V options)
- Bistro 63, Amherst (GF & V options)
- Mission Cantina, Amherst (ask for a side of their Mole it's SO good)
- La Veracruzana (GF and V options) Amherst and Northampton
- Fresh Side, Amherst (GF & V options)
- Sunset Grill & Pizza, Amherst (Open late. GF options including pizza)
- India Palace, Northampton (V options)
- The Hangar Pub and Grill, Amherst
- Pasta E Basta
- Miss Saigon, Amherst

- Lili's, Amherst (Biang Biang noodles are AMAZING)
- Bubs BBQ, Sunderland
- The Stables, Hadley (lunch)
- Black Sheep Deli, Amherst (lunch)
- Gianni Figs Deerfield
- The Deerfield Inn, Deerfield
- Fitzwilly's, Northampton
- Wiggins Tavern, Northampton
- The Deck Bar @Union Station, Northampton
- The Tree House Brewery, Deerfield (pizza, beer)

DESSERTS:

- Insomnia Cookies
- Glazed Doughnut Shop, Amherst (Late night, Vegan option)
- Yum! Bakery, on campus (Inside the Blue Wall dining area)
- Flavors of Cook Farm, Hadley (ice cream)

FOOD & GAMES:

- Quarters, Hadley (trivia on Mondays and arcade games throughout)

BOBA TEA:

- Lime Red, Amherst (good dairy-free substitute options)
- Vivi's, Amherst (cool specialty drinks)
- Moge, Amherst (good for fruit-based drinks/teas)

2023 EAS Honey Show

*Chris Delaney
2023 EAS Massachusetts
Conference Honey Show Chair*

Massachusetts is home to Lorenzo Langstroth's church, Fluff marshmallow crème, the Boston Red Sox and the 2023 EAS Conference Honey show! Plans for the Honey Show are well underway for this year's EAS Conference at the University of Massachusetts in Amherst, MA.

A challenge has been issued to the county organizations in Massachusetts to have entries in this year's honey show and I would like to extend that challenge to every member of EAS. Please do your best to bring at least one item to exhibit. Did you take an exceptional picture? Are you a craftsperson who made something special this past year or are you a great cook? Do not be that person who says, "I should have entered my honey, photo, quilt or wax".

We have a ballroom space to fill with our entries and it is exciting to think about what we will be receiving for competition. The lighting in the room should make it glow with golden honey. This is one of the top shows in the country. Imaging 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 2023 rules for entering which are posted on the EAS website. Take special note of any changes. New this year is a change to the creamed honey class which will need to be in a one pound, round, SHORT jar. 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 Amherst room in the UMass Campus Center, 10th floor on Tuesday, August 1 from 2:00-5:00pm and again on Wednesday August 2 from 8:00-11:00AM. We look forward to seeing you.

Honey Exchange

Bring 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.



Field Trips



BUS TRIP

These bus trips require pre-registration and payment.

Conference attendees will have the opportunity to visit three nearby Western Mass attractions. We are scheduling a bus-driven day trip that starts with a stop at **Historic Deerfield**, an authentic 18th-century colonial village where you can tour eight historic homes, and museums that include collections of art, antiques, and historical architecture.

Your next destination is **Shelburne Falls Village** where you can walk the World-Famous Bridge of Flowers. Back in 1929, the local Women's Club first planted flowering trees, shrubs, perennials, vines, bulbs, and annuals that keep the bridge in glorious bloom. Enjoy the charm of this quaint New England village with its many eateries and outdoor natural beauty and attractions.

The last stop is **Yankee Candle Village** where you will discover everything candles. Visit the Bavarian Christmas village, shop for thousands of Christmas ornaments and visit the Scented Gift Boutique. There is also a brewery and pizza café to hit up before returning to UMass.

NEW ENGLAND APIARIES

New England Apiaries LLC, will be hosting Thursday morning and afternoon half-day tours and demonstrations at their facility in Southwich MA. Bill Crawford runs a commercial beekeeping operation with over 1800 colonies, providing pollination services to fruit and produce farms in multiple states. This is a great opportunity to see a commercial operation and talk with a commercial beekeeper on topics of his operation including queen rearing, package and nuc production, pollination services, and honey harvesting.

These bus trips require pre-registration and payment.



Additional Local Attractions

In addition to these EAS-organized bus trips, there are a myriad of local attractions to check out during the conference or an extended visit to Amherst. A copy of the WesternMass Visitor's Guide 2023-2024 will be in your welcome bag, or plan ahead through their website!



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

Please join us for the annual Eastern Apicultural Society Children's Program on Thursday, August 3rd! Every year, this program is included as a part of the conference to provide an opportunity for kids to learn about beekeeping.

The program will be set up with an array of activity and learning stations set up throughout the room. Children will have the opportunity to participate in a variety of crafts, games, lessons and more. Whatever your child likes to do, there is sure to be something for them, as well as the chance to try something new! With opportunities to look, listen, feel, and do, kids of all ages (and the parents/guardians who come with them) will walk away having had an in depth exposure to the world of bees and beekeeping.

To maximize enjoyment for our young learners, there will be two sessions of the Children's Program to allow for age-appropriate engagement. One in the morning geared to ages 4-7, and another in the afternoon geared to ages 8-12. However, any child can attend and enjoy either session.

This program was arranged and organized by EAS member beekeepers with a professional background in education. We will also be joined by the 2023



Massachusetts Honey Queen, Caroline Canterbury, who represents the Massachusetts Beekeepers' Association and works to educate the public about honey bees throughout the state. The core goal of the Children's Program is educating kids about bees, beekeeping, and their importance. Kids will be guided to think and learn about all things bees, including keeping them, caring for them, and supporting them. Activities will also explore honey, wax, pollination, and more.

Just as our honey bees have such a positive impact on our world, this program hopes to have a positive impact on its future stewards. We hope that you and the children in your life will register to join us on August 3rd!

Painted Bee Equipment

For the past few years, organizations local to the conference have provided painted bee equipment, primarily as hive boxes, for auction. These are beautiful additions to your bee yard, indoor décor, bee equipment store or vendor booth. The painted items will be available for viewing and bidding throughout the conference.



Auctions

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

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.

The live auction will be held on August 3rd following the Thursday night dinner.. It will feature select items donated by vendors and individuals including award winning items from the Honey Show.



WANT TO MAKE A DONATION?

Please contact Meghan if you wish to make a donation to the auction, at auctioncommittee@easternapiculture.org

Keep Fit, Flexible and Relaxed with Yoga and Zumba!

EAS 2023 will offer both Yoga and Zumba exercise. Zumba will be offered from 6:00 – 7:00 a.m. by Erin Evans (MacGregor Forbes) and Yoga will be offered in the evenings by Bridget Wilson. Check the daily conference newsletter, the Waggle for location and times.



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 Auditorium, stop by, and learn about their mission, research, and outreach.

New in 2023 we have added daily “Pop-Up Booths”. Selected New England exhibitors will feature a variety of local bee-related art and crafts.

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

Please support the Folks that support EAS!

Short Course Schedule









SUNDAY, JULY 30

3:00 - 5:00 PM	Registration <i>Campus Center, 1st Floor Lobby</i>
5:30 - 7:00 PM	Welcome Reception <i>Campus Center, 2nd Floor</i>
7:00 - 8:30 PM	Board of Directors Meeting <i>Campus Center, Room 803</i>

MONDAY, JULY 31

MORNING

(Subject to Change)

6:00 - 7:00 AM	Zumba – Erin Evans (MacGregor-Forbes) <i>Location TBD</i>					
7:30 AM – 4:00 PM	Registration <i>Campus Center, 1st Floor Lobby</i>					
	Honey Show Set Up - Campus Center, 10 th Floor, Amherst Room					
Theme & Location	MICROSCOPY <i>(Must be pre-registered and paid in advance)</i>	BEGINNER	INTERMEDIATE	ADVANCED - HIVE PRODUCTS	EAS APIARY	QUEEN REARING WORKSHOP <i>(Must be pre-registered and paid in advance)</i>
	Room # (TBD) 	ROOM 163 1 ST Floor Campus Center	ROOM 331 1 ST Floor Campus Center	ROOM – TBD Integrative Learning Center	South Lawn of Campus Center <i>(Unless otherwise noted)</i>	ROOM 174 1 ST Floor Campus Center <i>(Except as noted below)</i> 
8:30 - 9:25 AM	Refer to Workshop Schedule 	Fundamental Principles of Honey Bee Colony Management <i>Dorinda Priebe</i>	My Hive Swarmed – Now What? <i>Leslie Huston, CT</i>	Crawford Comb Honey Method <i>Bill Crawford</i>	Smoker Lighting, Observations to be Made Before Opening a Hive. <i>Don Hopkins</i>	Introduction and Making Cell Builders <i>Jennifer Keller</i> 
9:25 - 9:35 AM	10 min transfer time					
9:35 - 10:30 AM	Refer to Workshop Schedule 	The Well Established Colony <i>John Benham</i>	Increasing Honey Production by Artificial Swarming <i>Erin Evans (MacGregor-Forbes)</i>	Pollen and Propolis <i>Rich Wieske</i>	Open Time	Making Cell Builders <i>(At the EAS Apiary)</i> <i>Jennifer Keller</i> 
10:30 - 11:00 AM	30 Minute Break Vendor Exhibiting Area in the Campus Center Auditorium, 1st Floor					
11:00 - 11:55 AM	Refer to Workshop Schedule 	Specific Feeding Through the Seasons for Specific Results <i>David Burns</i>	Thermoregulation and Ventilation <i>William Hesbach</i>	Meade <i>Rick Reault</i>	Inspection of Colonies – What to Look For <i>Don Hopkins</i>	Planning and scheduling for successful queen rearing <i>Jennifer Keller</i> 
11:50 AM – 1:00 PM	Lunch and free time to visit vendors <i>Lunch on your own and available at the Worcester Common, or at the Food Court in the Campus Center, 2nd floor</i> <i>Vendors in the Vendor Exhibiting Area in the Campus Center Auditorium, 1st floor</i>					



- Workshops and events that require pre-registration and payment.

MONDAY, JULY 31

AFTERNOON

(Subject to Change)

Theme & Location	MICROSCOPY <i>(Must be pre-registered and paid in advance)</i>	BEGINNER	INTERMEDIATE	ADVANCED - HIVE PRODUCTS	EAS APIARY	QUEEN REARING WORKSHOP <i>(Must be pre-registered and paid in advance)</i>
	Room # (TBD)	ROOM 163 1 ST Floor Campus Center	ROOM 331 1 ST Floor Campus Center	ROOM – TBD Integrative Learning Center	South Lawn of Campus Center <i>(Unless otherwise noted)</i>	ROOM 174 1 ST Floor Campus Center <i>(Except as noted below)</i>
1:30 - 2:25 PM	Refer to Workshop Schedule	Reading the Frames <i>Landi Simone</i>	Mysteries and Management of Laying Workers <i>Dr. Jon Zawislak</i>	Wax Rendering for Shows and Products <i>Danni Mannino</i>	Open Time	Grafting Overview <i>Jennifer Keller</i>
2:25 - 2:35 PM	10 min transfer time					
2:35 - 3:30 PM	Refer to Workshop Schedule	Early Signs of Trouble in a Hive and What to Do About It <i>Ed Karle</i>	How to Integrate the “Brood Factory” Concept into Smaller Operations <i>Erin Evans (MacGregor-Forbes)</i>	Candle Making <i>Danni Mannino</i>	Reading the Frames <i>Don Hopkins</i>	Practice Grafting <i>Jennifer Keller</i>
3:30 - 4:00 PM	30 Minute Break and Snacks <i>Visit Vendors in the Vendor Exhibiting Area in the Campus Center Auditorium, 1st Floor</i>					
4:00 - 4:55 PM	Refer to Workshop Schedule	Observations and Data Collection <i>John Gaut</i>	Pollen Stresses on Your Colonies – Is Feeding Worth It? <i>Dr. Heather Mattila</i>	Creams, Salves, and Balms <i>Landi Simone</i>	Inspecting for Disorders <i>Don Hopkins</i>	EAS MB Candidate Meet, Greet, and Q&A
4:55 PM	Dinner on your own.					






- Workshops and events that require pre-registration and payment.

Short Course Schedule

TUESDAY, AUGUST 1

MORNING

(Subject to Change)

6:00 – 7:00 AM	Zumba – Erin Evans (MacGregor-Forbes) <i>Location TBD</i>						
7:30 AM – 4:00 PM	Registration <i>Campus Center, 1st Floor Lobby</i>						
2:00 PM – 5:00 PM	Honey Show Entry Drop Off <i>Campus Center, 10th Floor, Amherst Room</i>						
8:30 AM - 12:30 PM	Master Beekeeper - Written Exam <i>Location - TBD</i>						
8:30 AM - 12:30 PM	Master Beekeeper - Oral Exam <i>Rooms 903, 904 & 905, 9th Floor Campus Center</i>						
Theme & Location	“HOW TO” ROOM 163 1 st Floor Campus Center	BEGINNER ROOM 174 1 st Floor Campus Center	INTERMEDIATE ROOM – 331 Integrative Learning Center	ADVANCED – BUSINESS OF BEEKEEPING ROOM – TBD Integrative Learning Center	EAS APIARY South Lawn of Campus Center <i>(Unless otherwise noted)</i>	INTRODUCTION TO HONEY SHOW JUDGING ROOM 168 1 st Floor Campus Center	QUEEN REARING WORKSHOP <i>(Must be pre-registered and paid in advance)</i> ROOM 162 1 st Floor Campus Center <i>(Except as noted below)</i> 
8:30 - 9:25 AM	Cleaning and Maintaining Your Equipment (Extractor, Refractometer, & Observation Hive) <i>Mark Cooper</i>	What Beekeepers Need to Know About Yellow Jacket Wasps <i>Allen Hayes</i>	4 Tips that Took Me a Decade to Master <i>David Burns</i>	The Business of Migratory Beekeeping <i>Glen Card</i>	Open Time	The EAS Honey Show: Why We Do It? & Honey Show Steward Orientation* <i>Karla Eisen</i>	No Class
9:25 - 9:35 AM	10 min transfer time						
9:35 - 10:30 AM	Clean and Maintain Your Safety Equipment <i>TBD</i>	What Kills Bees? <i>Dr. Dewey Caron</i>	Collecting and Submitting Samples for Analysis <i>Dr. Kim Skryms</i>	Collaborating with National Suppliers <i>Dan Conlon</i>	Follow-up on Problem Hives, and Q&A <i>Don Hopkins</i>	Introduction to Judging Honey Shows <i>Jim Fraser and Dr. James Wilson</i>	Grafting <i>Jennifer Keller</i> 
10:30 - 11:00 AM	30 Minute Break <i>Visit Vendors in the Vendor Exhibiting Area in the Campus Center Auditorium, 1st Floor</i>						
11:00 - 11:55 AM	Photographing Honey Bees <i>Paul Tessier</i>	Maintaining a Disease Free Condition in the Beehive <i>Dr. Leonard Davis</i>	Change in Queen Produced Volatiles During Reproductive Swarming <i>Dr. Heather Matilla</i>	Transforming from a Hobbyist to a Sideliner <i>Bill Crawford</i>	What's Wrong with my Hive? Pests or Pesticides? <i>Don Hopkins</i>	Judging Comb and Extracted Honey <i>Jim Fraser and Mark Fiegl</i>	Check Cell Builder and Place Grafted Cells in Cell Builder <i>(At EAS Apiary) Jennifer Keller</i> 
11:55 AM – 1:00 PM	Lunch and free time to visit vendors <i>Lunch on your own and available at the Worcester Common, or at the Food Court in the Campus Center, 2nd floor</i> <i>Vendors in the Vendor Exhibiting Area in the Campus Center Auditorium, 1st floor</i>						

* Session required for Honey Show Stewards.



- Workshops and events that require pre-registration and payment.

TUESDAY, AUGUST 1

AFTERNOON

(Subject to Change)

1:00 PM - TBD	Master Beekeeper - Oral Exam <i>Rooms 903, 904 & 905, 9th Floor Campus Center</i>						
1:00 PM – 3:00 PM	Field Guided Workshop on Photographing Honey Bees* State Apiary						
Theme & Location	"HOW TO"	BEGINNER	INTERMEDIATE	ADVANCED – BUSINESS OF BEEKEEPING	EAS APIARY	INTRODUCTION TO HONEY SHOW JUDGING	QUEEN REARING WORKSHOP <i>(Must be pre-registered and paid in advance)</i>
	ROOM 163 1 ST Floor Campus Center	ROOM 174 1 ST Floor Campus Center	ROOM – 331 Integrative Learning Center	ROOM – TBD Integrative Learning Center	South Lawn of Campus Center <i>(Unless otherwise noted)</i>	ROOM 168 1 ST Floor Campus Center	ROOM 162 1 ST Floor Campus Center <i>(Except as noted below)</i>
1:30 - 2:25 PM	Establishing a Public Bait Hive Project to Educate the Public <i>Deborah Klughers</i>	Small Hive Beetles <i>Dr. Jon Zawislak</i>	Educating the Next Generation of Beekeepers <i>Dr. Cameron Jack</i>	Understanding the Business Implications and Tax Advantages of Your Beekeeping Hobby or Business <i>Erin Evans (MacGregor-Forbes)</i>	What to Expect When Being Inspected <i>Massachusetts State Inspectors</i>	Judging Beeswax, Candles, Gift Baskets, and Art <i>Mark Fiegl David Morris</i>	What to do with Ripe Cells <i>Jennifer Keller</i>
2:25 - 2:35 PM	10 min transfer time						
2:35 - 3:25 PM	Weird Swarm Techniques <i>Landi Simone</i>	The Latest in Colony Monitoring Technology <i>Frank Linton</i>	Well Mated Queens Produce the Busiest Hives <i>Dr. Heather Mattila</i>	Beekeeping Insurance – What, Why, and When? <i>TBD</i>	Small Hive Beetle Traps and How to Use Them <i>Don Hopkins</i>	Successes and Challenges in Judging & Hands On Judging Practice <i>Bob Wellemeyer Dr. James Wilson, Mark Fiegl, Jim Fraser, Karla Eisen</i>	Trouble Shooting and Q&A <i>Jennifer Keller</i>
3:30 - 4:00 PM	30 Minute Break and Snacks <i>Visit Vendors in the Vendor Exhibiting Area in the Campus Center Auditorium, 1st Floor</i>						
4:00 - 4:55 PM	The Science of Baking - Tips and Ideas on Using Honey in the World of Pastry and Baking <i>UMass Chefs</i>	Beginning Beekeeping Round Table <i>Master Beekeepers</i>	Inspector Meet and Greet – Come Beek Out With Us! <i>MDAR Apiary Inspectors of America</i>	Bee Economics: What Women and Bees Teach Us About Local Trade and Global Markets <i>Dr. Tammy Horn Potter</i>	Open Time	Hands On Practice <i>Bob Wellemeyer James Wilson, Mark Fiegl, Jim Fraser, Karla Eisen</i>	No Class
6:30 PM	Dinner around town with EAS hosts <i>Sign up required at Registration Desk – 1st Floor, Campus Center</i>						

* Pre-registration Required. Limited to 20 students. Bring our own camera.



- Workshops and events that require pre-registration and payment.

Short Course Workshops

Microscopy Workshop

MONDAY, JUL 31, 2023

This workshop requires pre-registration and payment

The microscopy workshop will provide exposure to microscopes, bee anatomy, sample preparation, dissection protocols, and disease diagnostics. The course will focus on external/internal anatomy and honey bee health issues. The external anatomy component will cover all the basic body parts of the honey bee worker and activity to dis-assemble/re-assemble a bee. The internal anatomy component will cover all internal structures of the honey bee worker and an activity to remove tissues to create slides for further diagnostics in the health issues classroom. Time permitting, students will also be able to view and dissect the anatomy of drone and queen honey bees. The health issues component will focus on visual symptoms, field diagnosis, sampling and lab analysis for Nosema, AFB, EFB, Varroa and Tracheal mites.



MONDAY SCHEDULE

8:30 - 10:30 AM :

- Group 1: External Anatomy and Pollen
Dr. Kim Skyrn
- Group 2: Internal Anatomy and Health Issues
Jennifer Lund

1:35 - 3:35 PM

- Group 3: External Anatomy and Pollen
Dr. Kim Skyrn
- Group 4: Internal Anatomy and Health Issues
Jennifer Lund

10:35 - 12:35 AM

- Group 1: Internal Anatomy and Health Issues
Jennifer Lund
- Group 2: External Anatomy and Pollen
Dr. Kim Skyrn

3:40 – 5:40 PM

- Group 3: Internal Anatomy and Health Issues
Jennifer Lund
- Group 4: External Anatomy and Pollen
Dr. Kim Skyrn

INSTRUCTORS AND SUPPORT STAFF

- Kim Skyrn, PhD- Chief Apiary Inspector Massachusetts
- Jen Lund, MSc- Chief Apiary Inspector Maine
- Paul Tessier- Apiary Team Massachusetts
- Shay Willette Apiary Team Massachusetts
- Jessica Glover-Apiary Team Massachusetts

Queen Rearing Workshop

TUESDAY, AUGUST 1, 2023

This workshop requires pre-registration and payment

The queen rearing class for EAS 2023 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.



Introduction to Honey Show Judging

TUESDAY, AUGUST 1, 2023

The introduction to Honey Show Judging is presented as a series of workshops led by experienced judges and honey show superintendents. Attendees can pick and choose which sessions they wish to attend, however for maximum benefit, we encourage anyone serious about pursuing judging to attend the entire day. All EAS Honey Show stewards are asked to attend the first session or contact the workshop coordinator for alternate arrangements. Please bring your own samples of honey, comb, wax blocks, and candles for the hands-on sessions.



EAS Photography Workshop

TUESDAY, AUGUST 1, 2023

This workshop requires pre-registration and payment

Join photographer, apiary inspector and beekeeper Paul Tessier for a hands-on photography workshop where you will learn to make professional quality, awe inspiring close-up images of honey bees. Whether you are new to photography and looking for basic instruction, a seasoned pro looking to polish your craft, or someone who is just interested in how these pictures are created, this workshop will have something for you! Bring your camera, lens, and veil. We plan to photograph honey bees on flowers, water sources as well as in and around the hive.

- Hands on instruction photographing live honey bees.
- Learn to use macro lenses for detailed close-up images.
- Learn to use flashes and modifiers for dramatic lighting.
- Learn to critique, edit, and process photos.
- Share newly taken photos at conference gatherings.




Conference Schedule

WEDNESDAY, AUGUST 2

MORNING

(Subject to Change)

6:00 - 7:00 AM	Zumba – Erin Evans (MacGregor-Forbes) <i>Location TBD</i>
7:30 AM – 4:00 PM	Registration <i>Campus Center, 1st Floor Lobby</i>
8:00 - 11:00 AM	Honey Show Entries Accepted <i>Campus Center, 10th Floor, Amherst Room</i>
8:30 AM - 12:30 PM	Master Beekeeper - Lab Exam <i>Location - TBD</i>
10:00 AM - 4:30 PM	Master Beekeeper Field Exam <i>MA State Apiary at the Agricultural Learning Center Farm, 911 North Pleasant Street</i>
8:30 - 8:45 AM	Introductions and Welcome – <i>Eloise Naylor, EAS Chair & Mary Duane, EAS President</i> <i>Student Union Ballroom</i>
8:45 - 9:15 AM	TBD <i>Student Union Ballroom</i>
9:15 - 9:25 AM	10-minute break – speaker setup
9:25 - 10:55 AM	 Dr. Tammy Horn Potter: History of Bees in the U.S. <i>Student Union Ballroom</i>
11:00 AM - 1:00 PM	Lunch and free time to visit vendors <i>Lunch on your own and available at the Worcester Common, or at the Food Court in the Campus Center, 2nd floor</i> <i>Vendors in the Vendor Exhibiting Area in the Campus Center Auditorium, 1st floor</i>

COMING UP THIS AFTERNOON: INTERVIEW WITH REV. LANGSTROTH

Come hear the interview with Rev. Langstroth on Wednesday Aug 2nd as he discusses beekeeping in his day and his design for a movable-frame beehive. You will also have a chance to meet, and have your photo taken with him, on Wednesday at the BBQ dinner. You could also head about 20 miles up the road to Greenfield and see the church where he worked, and the painted bee sculptures located around town.

WEDNESDAY, AUGUST 2

AFTERNOON

(Subject to Change)

Theme & Location	 "PAST"	BEE HEALTH	QUEENS AND BREEDING/ REARING	APITHERAPY	EAS APIARY
	ROOM 174 1 ST Floor Campus Center	Student Union Ballroom	ROOM – TBD Integrative Learning Center	ROOM 163 1 ST Floor Campus Center	South Lawn of Campus Center (Unless otherwise noted)
1:00 - 1:50 PM	EAS – The First 68 Years, A Synopsis <i>Doug Galloway</i>	Issues with Old Comb and Toxic Interactions <i>Bob Binnie</i>	Russian Queen Rearing Program <i>Dan Conlon</i>	<i>Apitherapy, Lyme Disease, and Why Beekeepers Should Get Stung</i> <i>Deborah Klughers</i>	General Inspection and Varroa Check <i>Don Hopkins</i>
1:50 - 2:00 PM	10 min break/ transfer time				
2:00 - 2:50 PM	Challenges in Commercial Beekeeping – Past to Present <i>Glen Card</i>	Colony Thirst: How Does a Honey Bee Colony Regulate Its Water Collection? <i>Dr. Tom Seeley</i>	The Role Drones Play in Queen Failures <i>John Gaut</i>	<i>Treating Wounds with Honey</i> <i>Dr. Allen Dennison</i>	What to Expect When Being Inspected <i>Massachusetts State Inspectors</i>
2:50 - 3:10 PM	20 Minute Break and Snacks Visit Vendors in the Vendor Exhibiting Area in the Campus Center Auditorium, 1st Floor				
3:10 - 4:00 PM	"Work I Knew I Must" – Al Root and Jane Cole: A Nineteenth Century Partnership with Twenty-First Century Implications <i>Dr. Tammy Horn Potter</i>	The Ins and Outs of Managing Varroa with OA <i>Dr. Cameron Jack</i> ROOM – 331 Integrative Learning Center	Breeding the Bee That Bites the Mite <i>Krispn Given</i>	Bee Sting Allergies <i>Dr. Jane Dennison</i>	Measuring Drift in the Apiary <i>John Gaut & Leslie Huston</i>
4:00 - 4:10 PM	10 min break/ transfer time				
4:10 - 5:00 PM	The Origin and Construction of the Langstroth's Patented Hive <i>Marc Hoffman</i>	Diet Diversity and Honey Bee Foraging Behavior <i>Dr. Rachael Bonoan</i> ROOM – TBD	Raising New England Queens <i>Leslie Huston</i>	<i>Workshop: Hands on Compounding of Healing Ointment and Applying Wound Dressings Using Your Honey</i> (Must be pre-registered and paid in advance) <i>Dr. Allen Dennison</i> 	The Craft and Science of Bee Lining <i>Dr. Tom Seeley</i> ROOM – TBD Integrative Learning Center
5:15 PM	Bee Olympics - Paul Kelly <i>EAS Apiary, South Lawn of Campus Center</i>				
6:00 PM	Happy Hour <i>Student Union Ballroom</i>				
6:30 PM	BBQ Dinner and Interview with Lorenzo Langstroth (Marc Hoffman) <i>Student Union Ballroom</i>				


 - Workshops and events that require pre-registration and payment.

Conference Schedule

THURSDAY, AUGUST 3

MORNING


(Subject to Change)

6:00 - 7:00 AM	Zumba – Erin Evans (MacGregor-Forbes) <i>Location TBD</i>
7:30 AM – 4:00 PM	Registration <i>Campus Center, 1st Floor Lobby</i>
8:30 AM – 12:00 PM	New England Apiaries - 1 st Tour <i>Bus drop-off and pickup at the Campus Center Bus Stop on North Pleasant Street</i>
9:00 - 11:00 AM	Children's Program <i>Campus Center, Room TBD</i>
9:30 AM – 5:15 PM	Bus leaves for Historic Deerfield and Bridge of Flowers <i>Campus Center Bus Stop on North Pleasant Street</i>
12:00 AM - 5:00 PM	Honey Show open for viewing <i>Amherst Room, Campus Center, 10th Floor</i>
8:30 - 8:45 AM	Conference Updates – <i>Eloise Naylor</i> , EAS Chair & <i>Mary Duane</i> , EAS President <i>Student Union Ballroom</i>
8:45 - 9:35 AM	Hambleton Award Winner – Dr. Michael Simone-Finstrom : <i>Harnessing Genetic Tools to Combat Honey Bee Stressors</i> <i>Student Union Ballroom</i>
9:35 - 9:45 AM	10-minute break – speaker setup
9:45 - 11:15 AM	 Dr. Judy Wu-Smart : Investigating Persistent Bee-Kills from Systemic Pesticide Pollution and Implications for Beekeepers <i>Student Union Ballroom</i>
11:30 AM - 12:30 PM	Life Member Luncheon <i>(Open to Life Members who have pre-registered and paid in advance)</i> <i>Marriot Room Campus Center, 11th Floor</i>
11:30 AM - 1:00 PM	Lunch and free time to visit vendors <i>Lunch on your own and available at the Worcester Common, or at the Food Court in the Campus Center, 2nd floor</i> <i>Vendors in the Vendor Exhibiting Area in the Campus Center Auditorium, 1st floor</i>

THURSDAY, AUGUST 3

AFTERNOON

(Subject to Change)

1:00 - 3:00 PM	Children's Program <i>Campus Center, Room TBD</i>				
1:00 - 5:15 PM	New England Apiaries – 2 nd Tour <i>Bus pickup and drop-off at the Campus Center Bus Stop on North Pleasant Street</i>				
	 "PRESENT" ROOM TBD Integrative Learning Center	BEE HEALTH Student Union Ballroom	BEE BEHAVIOR ROOM – 331 Integrative Learning Center	QUEEN BREEDING/REARING ROOM 163 1 ST Floor Campus Center	EAS Apiary South Lawn of Campus Center <i>(Unless otherwise noted)</i>
1:00 - 1:50 PM	The BeeMD <i>Dr. Dewey Caron</i>	Chemistry Behind Feeding Bees <i>Bob Binnie</i>	The Dynamics of Honey Bee Flight and Sexual Reproduction <i>William Hesback</i>	Considering Genetics in Your Operations <i>Meghan Denver</i>	Bee Lining Workshop (2 hrs) <i>(Must be pre-registered and paid in advance)</i> <i>Dr. Tom Seeley</i>
1:50 - 2:00 PM	10 minute break/ Transfer Time				
2:00 - 2:50 PM	Extended-Release Oxalic Acid & New Developments <i>Dr. David Peck</i>	20 Years of Commercial Beekeeping Without Treatment of Any Kind <i>Kirk Webster</i>	Promoting Bee Behaviors to Improve Honey Bee Health <i>Dr. Michael Simone-Finstrom</i>	Breeding for Low Varroa Growth (LVG) at the HBRC <i>Paul Kelly</i>	Bee Lining Workshop (continued) <i>(Must be pre-registered and paid in advance)</i> <i>Dr. Tom Seeley</i>
2:50 - 3:10 PM	20 Minute Break and Snacks Visit Vendors in the Vendor Exhibiting Area in the Campus Center Auditorium, 1st Floor				
3:10 - 4:00 PM	Importance of Wild and Managed Bees for Sustaining Agricultural Food Production and Our Natural Ecosystems <i>Dr. Judy Wu-Smart</i>	Keeping Bees Alive in a Parasite/Host Arms Race <i>Dr. David Peck</i> ROOM – TBD	Evolution of Darwinian Beekeeping <i>Kirk Webster</i>	The Mystery of Queen and Drone Reproductive Biology <i>Krispn Given</i>	Is My Hive Queenright? Plus, Clues to Help Find the Queen <i>Don Hopkins</i>
4:00 - 4:10 PM	10 Minute Break/Transfer Time				
4:10 - 5:00 PM	Update from Honey Bee Health Coalition <i>Dr. Dewey Caron</i>	The influence of Colony Size on Behavior Immunity <i>Dr. Rachael Bonoan</i> ROOM – TBD	Behavior Wonders of Honey Bees <i>Dr. Tom Seeley</i>	Backyard Queen Rearing <i>John Gaut</i>	General Q&A – Any Topic <i>Don Hopkins & Jennifer Keller</i>
6:00 PM	Happy Hour <i>Student Union Ballroom</i>				
6:30 PM	Dinner and Live Auction <i>Student Union Ballroom</i>				

Conference Schedule

FRIDAY, AUGUST 4

MORNING

(Subject to Change)

6:00 - 7:00 AM	Zumba – Erin Evans (MacGregor-Forbes) <i>Location TBD</i>
7:30 - 8:30 AM	Master Beekeeper Annual Meeting <i>Campus Center, Hadley Room, 10th Floor</i>
7:30 AM – 10:00 AM	Registration <i>Campus Center, 1st Floor Lobby</i>
8:30 - 8:45 AM	Conference Updates – <i>Eloise Naylor, EAS Chair & Mary Duane, EAS President</i> <i>Student Union Ballroom</i>
8:45 - 9:35 AM	Morse Award Winner – <i>Krispn Given, Purdue University</i> : Prospects for Increased Resistance to Varroa <i>Student Union Ballroom</i>
9:35 - 9:45 AM	10-minute break – speaker setup
9:45 - 11:15 AM	 Dr. Samuel Ramsey: What's Next? <i>Student Union Ballroom</i>
11:15 - 11:45 AM	30 Minute Break – Snack and Last Chance to Visit Vendors <i>Vendor Exhibiting Area in the Campus Center Auditorium, 1st Floor</i>
11:45 - 12:00 PM	Maryland EAS 2024 Conference Introduction – <i>David Morris</i> EAS President Elect <i>Student Union Ballroom</i>
12:00 - 1:00 PM	EAS Annual Business Meeting <i>Student Union Ballroom</i>
12:00 AM - 1:00 PM	Lunch and Last Chance to visit Vendors <i>Lunch on your own and available at the Worcester Common, or at the Food Court in the Campus Center, 2nd floor</i> <i>Vendors in the Vendor Exhibiting Area in the Campus Center Auditorium, 1st floor</i>
12:00 - 1:30 PM	Bi-Monthly NE (+NY) Honey Bee Update – Dr. Kim Skrym and Apiary Inspectors <i>Location - TBD</i>

FRIDAY, AUGUST 4

AFTERNOON

(Subject to Change)

1:00 - 3:00 PM	Honey Show Open for Viewing <i>Campus Center, 10th Floor, Amherst Room</i>			
	 "BEEYOND" ROOM TBD Integrative Learning Center	BEES FOR EDUCATION Student Union Ballroom	APITHERAPY ROOM – 331 Integrative Learning Center	EAS APIARY South Lawn of Campus Center <i>(Unless otherwise noted)</i>
1:00 - 1:50 PM	Climate Change <i>TBD</i>	Encouraging Youth to Understand Science <i>Dr. Samuel Ramsey</i>	Drone Brood Homogenate <i>Deborah Klughers</i>	Check Queen Cells Grafted on Tuesday <i>Jennifer Keller</i>
1:50 - 2:00 PM	10 min break/ transfer time			
1:00 – 4:00 PM	Using Honey and Other Healthy Ingredients to Bake Nutritious Desserts <i>UMass Master Chef, Pamela Adams</i> <i>(Must be pre-registered and paid in advance)</i> <i>Worcester Commons Dining Building Bakery</i>			
2:00 - 2:50 PM	UBeeO Assay - Pheromone-Based Tool for Determining Honey Bee Colony Pest and Disease Resistance <i>Dr. Kaira Wagoner</i>	Establishing Teaching Apiaries <i>Dr. Judy Wu-Smart</i>	Apitherapeutical Approaches to Gut Health and Enhanced Immunity <i>Dr. Nicole Klughers</i>	How to Prepare Hives for Moving – Discussion of Options <i>Don Hopkins</i>
2:50 - 3:10 PM	20 Minute Break <i>Snacks in the Courtyard</i>			
3:10 - 4:00 PM	Advancing Technologies to Combat Honey Bee Viruses Through Breeding and Antiviral Treatments <i>Dr. Michael Simone-Finstrom</i>	Teaching Beekeeping as a Tool to Relieve Poverty <i>Megan Denver</i> ROOM – TBD	Value Added Products from the Hive for Health and Wealth <i>Deborah Klughers</i>	Demonstration of Tool to Assess Colony Hygienic Behavior <i>Dr. Kaira Wagoner</i>
4:00 - 4:10 PM	10 min break/ transfer time			
4:10 - 5:30 PM	Speaker Panel – Thoughts on Future of Beekeeping – <i>Dr. Samuel Ramsey, Dr. Judy Wu-Smart, Dr. Kim Skrym, Dr. Michael Simone-Finstrom, Krispn Given, Bill Crawford</i> ROOM TBD, Integrative Learning Center			
5:30 - 6:00 PM	Free Time			
6:00 PM	Happy Hour - <i>Student Union Ballroom</i>			
6:30 - 9:00 PM	Awards Banquet and Dinner – Guest Speaker: Dr. Samuel Ramsey <i>Student Union Ballroom</i>			



- Workshops and events that require pre-registration and payment.

Conference Workshops

Baking with Honey at UMass

This workshop requires pre-registration and payment

CLASSROOM SESSION (TUE, AUG 1ST; 4:00 – 4:55 PM):

Chef Pam will touch on honey, syrups, and sugar and how they react in the science of baking and how our body responds to them. As a hands-on portion of the session, there will be a honey tasting and brief discussion on their flavors.

BAKING WORKSHOP (FRI, AUG 4TH; 1PM – 4PM): PRE-REGISTRATION REQUIRED

If you're looking to add another dimension to your repertoire of honey-sweetened breads and treats, join Pastry Chef Pamela Adams for an interactive hands-on class that covers a wide variety of delicious recipes. This class will cover not only good-looking bread, but also everything from breakfast items to lunch bars, treats and beautiful gateau de voyage cake to wow your friends.

Workshop Menu Details:

- Bread (honey wheat & oat rolls)
- Breakfast (Ajil granola [a Persian trail mix] & carrot honey loaf)
- Bars (honey almond cereal & chocolate cherry almond granola)
- Gateaux de Voyage Cake (honey almond cake & honey oatmeal cake)
- Treats (labneh [soft Middle Eastern cheese] and stuffed dates)





Registration Form

Complete conference registration for EAS 2023 is a two-part process this year. The first step is to sign in to this EAS registration site and complete the EAS Short Course and Conference Registration. You will indicate what days you will attend from Monday, July 31 to Friday, August 4, and sign up for meals, including dinners, and dormitory accommodations. We have dinners scheduled Wednesday through Friday, and four-room shared suites in the dormitories this year. Hotel options are also available.

Once you have registered for the conference itself, the second step is to re-enter the EAS conference registration site (this page) and choose one or more 2023 Special

Events that you would like to participate in. Each event must be registered separately. These include Microscopy, Advanced Candle Making, Queen Rearing, an Apitherapy Workshop, a Photography Workshop, and a Cooking Workshop. In addition, there are two bus-driven field trips: one a half-day trip to New England Apiaries, LLC; and the second a full-day trip to historic Deerfield, the Bridge of Flowers, and the Yankee Candle Flagship Store.

While online registration is preferred, a copy of the registration and event forms are included in the journal and can be mailed in for registration.

VOLUNTEERS

Volunteers are the heart and soul of the Conference as it runs throughout the week. As the conference is being planned, there are teams of folks and committees ironing out details. But, when the conference starts, it takes on-site EAS members serving as volunteers to make the conference a success. Volunteers are needed to help as room monitors, with the honey exchange, auction setups, transportation of speakers from and to the airport, assistants on field trips, meal supervisors, signage and more. Something for everyone.

The following are guidelines to help you decide how many hours you wish to volunteer:

- If volunteering for 4 to 7 hours, you can attend the conference for the remainder of the day for free.
- If you volunteer for 8 hours, you can attend a second day of the conference for free and get a volunteer t-shirt, or you can split the 8 hours

of volunteering and 8 hours of attending talks between two days.

- If you volunteer for 16 hours (2 days), you receive a volunteer T-shirt and the other days of the conference for free.

All volunteers will be signing in each day to log their volunteer hours and be given their assignment, hopefully one that is similar to your requested activity. You will also be noting what times that day you will be spending as a 'conference attendee' so that can be tracked as well.

All volunteers must be EAS members. Annual membership fee is \$35.

Thank you for your interest in making EAS 2023 in Massachusetts a success!

The conference cannot be run without our strong EAS community of volunteers and we thank you in advance for your service in making this another great conference.

EAS 2023 CONFERENCE SHIRTS

Before the conference, be sure to check out the EAS 2023 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.



EAS Short Course and Conference Registration Form

Monday, Jul 31 to Friday, Aug 4, 2023

Important Information before you begin...

- **THERE WILL BE NO WALK IN REGISTRATIONS AVAILABLE.**
- This paper registration form is for reference only. Registration is available online at www.easternapiculture.org
- Each conference attendee must register separately and be a current EAS member in good standing.
- If you do not wish to register online, please send an email to registrar@easternapiculture.org
- If you are registering for dorm rooms, dorm booking ends on June 30.
- A student credit of 25% off conference fees is available if you register by July 8. Bring your Student ID to the conference and visit the registration desk to claim this credit as a refund.
- Registration after Friday, July 8th is not available.
- By registering for the conference, you agree to our cancellation policy shown at the end of this document.
- Please register early! Special events are reserved on a first come basis.

Name	First Name	Last Name		
Address	Address			
	City	State/Prov.	Zip/Postal	Country
Your Contact	Your Phone Number		Your Email	
Emergency Contact	Emergency Contact Full Name		Emergency Contact Phone Number	

EAS Dues must be current to attend, membership includes up to 3 additional family members

Membership (choose one)	<input type="checkbox"/> \$35 Annual Dues	<input type="checkbox"/> \$65 Two-Year	<input type="checkbox"/> \$0 (if current member)	\$
	<input type="checkbox"/> \$50 Corporate Dues	<input type="checkbox"/> \$90 Three-Year	<input type="checkbox"/> \$350 Life Membership	

Name Tag Information (optional)

Name for Name Tag	First Name	Last Name
Apiary or Business	Apiary or Business Name	

Registration (your dues must be current to attend) – choose one of the following

<input type="radio"/> FULL WEEK: SHORT COURSE AND CONFERENCE – all five days, one price!	\$300	\$
<input type="radio"/> SHORT COURSE ONLY – Three-Day Course (Mon Aug 1 – Wed Aug 3)	\$200	\$
<input type="radio"/> CONFERENCE ONLY – Three-Day Conference (Wed Aug 3 – Fri Aug 5)	\$200	\$
<input type="radio"/> DAY PASS (\$100 per day, select days): <input type="checkbox"/> Mon <input type="checkbox"/> Tue <input type="checkbox"/> Wed <input type="checkbox"/> Thu <input type="checkbox"/> Fri	____ x \$100	\$

Page 1 Subtotal (sum up the values from the lines above)

\$

EASTERN APICULTURAL SOCIETY

University of Massachusetts, Amherst, Massachusetts

Page 2

Charitable Donations (EAS is a 501(c)(3) nonprofit organization! Donations are tax deductible.)

Auction Donation: please consider donating an item to EAS that we can use in our virtual auction, daily silent auction, or Thursday auction event. Any item, large or small, is appreciated. Just bring your item to the registration desk when you check in. Receipts are available. Send questions to AuctionCommittee@easternapiculture.org.			
EAS Donation: donors are listed in the EAS Conference Program, if donation is received by May 20, 2023. (Donations after June 1 will be recognized in the Daily Waggle and the Fall Journal)			
EAS Donation	<i>Drone Level Donor</i>	\$25	\$
	<i>Worker Level Donor</i>	\$50	
	<i>Queen Level Donor</i>	\$100	
	<i>Colony Level Donor (custom amount, minimum \$200)</i>		
Other Donations: support EAS research and speaker activities. Select your amount (minimum \$10, please)			
Research Donation	Donate to the EAS Foundation for Honey Bee Research Fund		\$
Speaker Donation	Donate to the EAS Speaker and Education Fund		\$

Meal Selections (available in the UMass Cafeteria)

For six straight years, The Princeton Review has ranked UMass Amherst as Best University Campus Food!

Take advantage of UMass's Dining Services for affordable, healthy, and delicious breakfasts, lunches, and dinners by purchasing EAS/UMass meal plan cards (in \$25 or \$50 denominations). These Dining Dollars cards save you valuable time and can be used at all retail dining locations on campus including UMass's Campus Center which features twelve different dining retail locations and the newly opened Worcester Commons with its buffet-style globally inspired menu.

On Monday night you are on your own for dinner. You won't go hungry! You and your beekeeping buddies can visit one of the many popular restaurants near UMass Amherst, there are over one hundred and thirty to choose from! Your options include Fine Italian Dining, American Tavern and Breweries, BBQ, and Sushi to Family-Friendly Pizza! Vegetarian and Vegan-friendly restaurants are also available.

Sign-up for the Tuesday night "Dining around Town" at the Conference registration desk with a listing of selected restaurants in the Amherst area. Team up with your EAS friends for a great evening sharing bread and bee stories.

Wednesday through Friday join EAS members for special dinners, or dine on your own on campus or in the area.

Lunch Selections (meals are not included with short course or conference registration)

Thursday, August 3 Life Member Luncheon	Life Members Only	Special luncheon for Life Members only. You must be a Life Member by July 1, 2023 to attend.		
	<input type="radio"/> Attend Life Member Lunch	<i>The buffet will provide roasted stuffed red pepper with mushrooms, primavera vegetable couscous, and basil pesto. Braised beef short rib with red cabernet demi. Accompanied by Driscoll's berry salad with premium local greens with Driscoll's berries, walnuts, feta & balsamic vinaigrette. Finish with a carrot cake dessert. Enjoy your meal, the company, and a luncheon presentation.</i>	# People ____ x \$30	\$

Page 2 Subtotal (sum up the values from the lines above)

\$

Dinners (meals are not included with short course or conference registration)

Enjoy dinner with your fellow beekeepers. Cash Bar with bartender available before and during dinner.

August 2: Wednesday Southern BBQ with "Rev. L. L. Langstroth" Cash Bar: 6:00 pm Dinner: 6:30 pm	<i>A "Southern" BBQ with pulled pork, BBQ chicken and vegetarian burgers paired with coleslaw, Boston baked beans, cornbread, corn on the cob, green beans and local pickles. Topped off by watermelon and pecan pie.</i>	# People ____ x \$35	\$
August 3: Thursday Buffet Dinner Cash Bar: 5:30 pm Dinner: 6:30 pm Honey Show Awards and Live Auction included	<i>Starters of quinoa and Driscoll's berry salads. Entrees include: chicken tikka masala with steamed basmati rice; Farmer's market double portobello mushroom stuffed with sweet potatoes, white beans and kale; Shrimp Alfredo with sauteed shrimp in a creamy Alfredo sauce over fettuccine. Sides include local honey-glazed carrots, roasted cauliflower and rice pilaf with onions and herbs. Desserts of seasonal blueberry lemon bread pudding and peach crisp.</i>	# People ____ x \$40	\$
August 4: Friday Plated Banquet Dinner with keynote Cash Bar: 5:30 pm Dinner: 6:30 pm Awards and Announcements	<p><i>Friday plated dinner includes: an entrée of your choice (select below), salad, roll with butter, locally grown vegetables, and a dessert of Boston Creme Pie. Coffee and tea provided.</i></p> <p><i>Please select your entree:</i></p> <ul style="list-style-type: none"> <input type="radio"/> <i>Olive oil poached halibut with heirloom tomato relish and champagne beurre blanc.</i> <input type="radio"/> <i>Pepper crusted beef tenderloin with Mushroom Demi.</i> <input type="radio"/> <i>Roasted vegetable ravioli (vegetarian) with roasted wine butter sauce, spinach, artichokes and roasted heirloom tomatoes.</i> 	# People ____ x \$50	\$

Purchase T-Shirts and other EAS Swag

Please visit the online Store on the EAS member site for T-Shirts, hats, and maybe other swag. These must be purchased prior to the conference and will be available for pick-up at registration.

EAS Store: <https://easternapiculturesociety.wildapricot.org/store>

Page 3 Subtotal (sum up the values from the lines above)

\$

On-Campus Dormitories

Dormitory rooms are available on a first-come basis. The rates listed are for single or double occupancy. If you plan to share a suite with an individual, please indicate the person's name and make sure your suite mate also reserves a suite (unless you buy more than 1 bedroom here. **We are not able to provide a refund if both you and your suite mate book a room.** For additional accommodations (hotels and camping), please see the EAS web site.

Please be aware that dormitory registrations end on Wednesday, July 12, 2023.

Housing rates include taxes and fees. All rooms are available from Sunday afternoon through Saturday morning, with linens included.

Dormitories at University of Massachusetts (single rooms in four-room suite)

<i>North Apartment Suite has 4 individually locked bedrooms, 2 bathrooms, small living room, and full kitchen. Each bedroom has single twin bed, dresser, closet, desk, and includes 2 sheets, pillow/case, and 2 towels. Wi-Fi and Free Parking included.</i>	Total number of nights _____ x \$75 (for each room) Nights: <input type="checkbox"/> Sun <input type="checkbox"/> Mon <input type="checkbox"/> Tue <input type="checkbox"/> Wed <input type="checkbox"/> Thu <input type="checkbox"/> Fri Do you need a handicap accessible room? <input type="checkbox"/> Yes <input type="checkbox"/> No If sharing suite, please provide the names of your suite mates: _____	\$
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On-Campus Camping

Camping vehicles that are totally self-contained (electrical, sewer, water and other services are not available) are permitted to park in a designated parking area on campus (in the north residential area lot). Daily rates include taxes and fees.

Camping at University of Massachusetts (self-contained camper only)

<i>Bring your own self-contained vehicle and park on campus during the short course or conference.</i>	Total number of nights _____ x \$8 (for single vehicle) Nights: <input type="checkbox"/> Sun <input type="checkbox"/> Mon <input type="checkbox"/> Tue <input type="checkbox"/> Wed <input type="checkbox"/> Thu <input type="checkbox"/> Fri	\$
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Page 4 Subtotal (sum up the values from the lines above)

\$

Special Events

Reserve these early, as spaces are filled on a first come basis and some events are limited. Take advantage of these great opportunities to socialize with fellow beekeepers and short course and conference speakers. Children under 18 must be registered for the conference (except for the special children's program) and must be accompanied by an adult at all times, including events. Please contact the EAS Secretary to obtain the registration form for children under 18.

Sunday, July 30: Welcome Reception Party (conference registration required)

Join us on Sunday evening to kick off "a week at EAS" in style. There is no cost, just let us know if you are coming so we can plan accordingly. This will feature a cash bar with light hors d'oeuvres. Meet your fellow beekeepers to talk about the week to come.	<input type="checkbox"/> I will attend (Guests are not permitted)	No cost
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Monday, July 31: Microscopy (registration required)

The microscopy workshop will provide exposure to microscopes, bee anatomy, sample preparation, dissection protocols, and disease diagnostics. The course will focus on external/internal anatomy and honey bee health issues. The external anatomy component will cover all the basic body parts of the honey bee worker and activity to dis-assemble/re-assemble a bee. The internal anatomy component will cover all internal structures of the honey bee worker and an activity to remove tissues to create slides for further diagnostics in the health issues classroom. Time permitting, students will also be able to view and dissect the anatomy of drone and queen honey bees. The health issues component will focus on visual symptoms, field diagnosis, sampling and lab analysis for <i>Nosema</i> , AFB, EFB, Varroa and Tracheal mites.	<input type="checkbox"/> Attend Microscopy lab: \$25 (Limited to first 30 registrants) (Short course registration is required to attend this event)	\$
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Monday and Tuesday, July 31 and August 1: Queen Rearing (registration required)

<p><i>This class will describe, demonstrate, and allow participants to practice the steps involved in raising queens. While the focuses on the Doolittle method of grafting, other methods will be discussed. The class will be conducted as 5 sessions over two consecutive days, including discussion and hands-on experience with cell builders, grafting, and placement of grafts. This class also covers setting up mating nucs, placing cells, understanding the queen development timeline, and troubleshooting common problems.</i></p> <p><i>This is an intermediate to advanced class, and participants are expected to have at least 2 years of experience keeping and overwintering bees. Registration is limited to ensure everyone receives attention and hands-on experience.</i></p>	<input type="checkbox"/> Attend Queen Rearing: \$75 (Limited to first 30 registrants) (Short course registration is required to attend this event)	\$
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EASTERN APICULTURAL SOCIETY

Page 6

University of Massachusetts, Amherst, Massachusetts

More Special Events

Please see introductory paragraph on the previous page.

Tuesday, August 1: Dining Around Town (various local restaurants)

<p><i>Tuesday evening, members of the Massachusetts Beekeepers Association have offered to serve as guides and take small groups of registrants to dinner in Amherst and surrounding areas. The cost of the meal will vary with the restaurant and meal choice, and is not included as part of registration. A list of suggested restaurants will be provided on the EAS Website. Sign-ups for specific restaurants will be available on Sunday afternoon and Monday morning as you register. Please provide the number of people you might expect to join in a dinner to assist with our planning; though this will not be a solid commitment.</i></p>	<p>Sign-up will be at Registration on Sunday and Monday morning. The cost of the meal is the responsibility of participants.</p> <p># Possible Participants: _____ (Guests are permitted)</p>	<p>No fee</p>
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Tuesday, August 1: Photography Field Workshop (registration required)

<p><i>Join photographer, apiary inspector and beekeeper Paul Tessier for a hands-on photography workshop where you will learn how to make professional quality, awe inspiring close-up images of honey bees. Whether you are new to photography and looking for basic instruction, a seasoned pro looking to polish your craft, or someone who is just interested in how these pictures are created, this workshop will have something for you! Bring your own camera, lens, and veil (required!). We plan to photograph honey bees on flowers, water sources as well as in and around the hive.</i></p> <ul style="list-style-type: none"> • <i>Hands on instruction photographing live honey bees.</i> • <i>Learn to use macro lenses for detailed close-up images.</i> • <i>Learn to use flashes and modifiers for dramatic lighting.</i> • <i>Learn to critique, edit, and process photos.</i> • <i>Share newly taken photos at conference gatherings.</i> 	<p><input type="checkbox"/> Attend Photography Workshop: \$15 (Limited to first 20 registrants)</p> <p>(Short course registration is required to attend this event)</p>	<p>\$</p>
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Wednesday, August 2: Apitherapy Workshop (registration required)

<p><i>There will be a series of open (free) afternoon lectures on Wednesday and Friday. In addition, a hands-on workshop will be held on Wednesday (registration-required). This will cover the compounding of healing ointment and the application of wound dressings using local honey.</i></p>	<p><input type="checkbox"/> Attend Apitherapy Workshop: \$15 (Limited to first 150 registrants) (Conference registration is required to attend this event)</p>	<p>\$</p>
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Page 6 Subtotal (sum up the values from the lines above)

\$

Even More Special Events

Please see introductory paragraph on page 5.

Thursday, August 3: New England Apiaries, LLC Tour (Half-day tour, registration required)

<p><i>A tour of New England Apiaries LLC in Southwick, MA. Learn how a single hive and a local bee club's bee school changed life's trajectory for one man and led to a career in beekeeping. Includes a presentation on how New England Apiaries LLC manages their 2,500+ colonies throughout the year, an opportunity to tour commercial extracting equipment, and a live demonstration on the cutting and preparation of cut comb honey.</i></p>	<input type="checkbox"/> Attend Morning Tour: \$25 <input type="checkbox"/> Attend Afternoon Tour: \$25 (Limited to first 36 registrants for each tour) (Conference registration is required for this tour)	\$
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Thursday, August 3: Sightseeing Tour

Historic Deerfield and Bridge of Flowers, and the Yankee Candle Flagship Store

(Full day trip, registration required)

<p><i>This bus-driven day trip visits three nearby western Massachusetts attractions. First stop is Historic Deerfield, an authentic 18th-century colonial collection of art, antiques, and historical architecture. Tour the museums and restored colonial homes.</i></p> <p><i>Your next destination is Shelburne Falls Village where you can walk the world-famous Bridge of Flowers. In 1929, the local women's club planted flowering trees, shrubs, perennials, vines, bulbs, and annuals that keep the Bridge of Flowers in glorious bloom. Enjoy the charm of this quaint New England village with its outdoor natural beauty and attractions. Self-serve lunch at the Village's many eateries.</i></p> <p><i>The last stop is Yankee Candle Village where you will discover everything candles. Visit the Bavarian Christmas village, shop thousands of Christmas ornaments, and visit the scented gift boutique. There is also a brewery and pizza cafe available before returning to UMass.</i></p>	<input type="checkbox"/> Attend Tour & Visit as Conference Registrant: \$50 <input type="checkbox"/> Attend Tour & Visit as Guest (of Registrant): \$50 (Limited to first 36 registrants) Guest: _____	\$
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Friday, August 4: Cooking Workshop (registration required)

<p><i>If you're looking to add another dimension to your repertoire of honey-sweetened breads and treats, join Pastry Chef Pamela Adams for an interactive hands-on class that covers a wide variety of delicious recipes. This class will cover not only good-looking bread, but also everything from breakfast items to lunch bars, treats and beautiful gateau de voyage cake to wow your friends.</i></p>	<input type="checkbox"/> Attend Workshop: \$25 (Limited to first 15 registrants) (Conference registration is required to attend this event)	\$
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Payment

Payment is available by check or credit card if postmarked by June 24, 2023

Credit card information can be provided on this form or using online registration at www.easternapiculture.org.

Payment Totals

Page 1 Subtotal	(Copied over from page 1)	\$	
Page 2 Subtotal	(Copied over from page 2)	\$	
Page 3 Subtotal	(Copied over from page 3)	\$	
Page 4 Subtotal	(Copied over from page 4)	\$	
Page 5 Subtotal	(Copied over from page 5)	\$	
Page 6 Subtotal	(Copied over from page 6)	\$	
Page 7 Subtotal	(Copied over from page 7)	\$	
Grand Total (sum of page 1-7 subtotals)		\$	(please pay this amount)

Registration questions? Email register@easternapiculture.org

To discuss any restrictions or special accommodations required, please email registrar@easternapiculture.org

Pay by Credit Card (to pay by credit card, please complete the following information)

Credit Card Information	Full Name as it appears on Credit Card	Card Type <input type="checkbox"/> Visa <input type="checkbox"/> Mastercard	Security Code*
	Credit Card Number	Expiration Date	
	Signature		

* The Security Code is the 3-digits that appear on the back of your credit card

Pay by Check (to pay by check, please follow these instructions)

Check Payment	Mail this entire registration form along with a check made payable to EAS by June 24, 2023.	
	Payment Address	EAS Registration, c/o Jacky Hildreth 3 Summit Terrace North Yarmouth, Maine 04097

Cancellations and Refunds

All cancellations of short course and conference registration; purchase of meals; and social events must be made in writing to the registrar at registrar@easternapiculture.org. Each short course and conference registration cancellation received by 5 PM ET on Saturday, July 1, 2023, will receive a refund of 100% of the registration cost, including meals and special events, less a \$50 administrative fee.

Cancellations received after 5 PM ET on Saturday, July 1, 2023 will be refunded at the discretion of EAS, less the administrative fee. Any meals, lodging, or special event guarantees made on your behalf will not be refunded.

Any refunds will be processed within two weeks after the conclusion of the conference.

No refunds will be issued once the short course and conference begins.

No-Shows

Refunds will not be granted for no-shows (registrants who do not attend with no prior notice of cancellation).

EAS 2023 Short Course & Conference Registration

COMMUNITY BUZZ

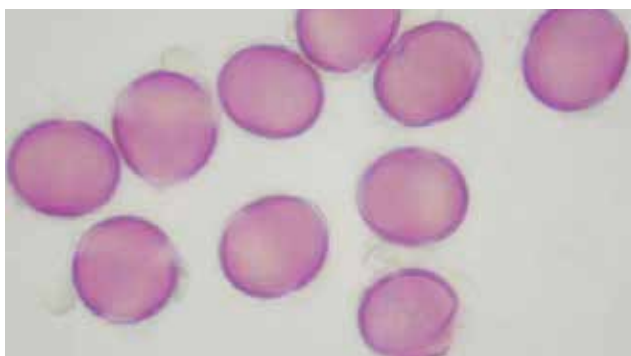
Pollen Identification

by Linda Mizer

Spring is battling its way past winter and into summer. There seems to have been such variable temperatures and conditions throughout the EAS footprint with temperatures bouncing between 80° - 40° F during the day and plummeting to subfreezing temperatures overnight. Very early swarms abound in some states while others are hoping the late Spring frosts don't kill all the fruit blooms this year. Still, the bees buzz on bringing in an amazing array of pollens from such a variety of plants – hard not to be amazed by the entire process. Wishing all your bees happy pollen gathering and rapid brood rearing as the nectar flows approach!

1. *Lolium perenne*, Reyegrass, Philip Uptmore, NC
2. *Scilla siberica*, Siberian squill, Ed Syzmanski, MA
3. *Rosa WEKsurdicla*, Rainbow Happy Trails Groundcover rose, Lisa Tubbs, FL
4. *Forsythia koreana*, Shona Erlenborn, NJ
5. *Magnolia stellata*, Star magnolis, Ned Morgan, NJ
6. Loaded pollen baskets! Timothy Liptack, SC

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, *rosa*.

POLLEN CREDIT: *Rosa spp.* Images courtesy of Science & Plants for Schools, found at <http://www.saps.org.uk>

EAS BUSINESS

EAS Board of Directors Minutes

SUNDAY, APRIL 2 2023 - 7:00 PM VIA ZOOM

CALL TO ORDER

Lou Naylor called the meeting to order at 7:00 pm.

STATES/PROVINCES IN GOOD STANDING

Alabama, Connecticut, District of Columbia, Delaware, Florida, Indiana, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, North Carolina, Ohio, Ontario, Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia, West Virginia.

STATES/PROVINCES WITH EXPIRED DUES

Georgia, Illinois (vacant), Mississippi (vacant), Quebec (vacant), Tennessee (vacant), Wisconsin (vacant), Canadian Maritime, (vacant).

ROLL CALL OF OFFICERS AND DIRECTORS

Lou Naylor, Chairman; Linda Allen Mizer, Vice Chairman; Doris Morgan, Secretary; Jack Hildreth, Treasurer; Mary Duane, President; David Morris, Vice President; Erin MacGregor Forbes, Chairman Emeritus; Adam Hickman, AL; Leonard Davis, KY; Clyde Strang, MD; Rich Wieske, MI; Dorinda Priebe, NH; Anne Fraser, VA, David Priebe, Master Beekeepers.

Absent: Bob Talkiewicz, Past President; Bill Hesbach, CT; Bob Bauer, DE; Kevin Platte, D.C; Roger Blanco, FL; Brutz English, GA; David Hocutt, IN; Carin Zinter, MA; John Gaut, NJ; Mark Fiegl, NY; Burton Beasley, NC; Jeannie Saum, OH; Mark Gingrich, PA; Cindy Holt, RI; Nancy Simpson, SC; Sam Golston, WV; Thomas Nolan, Ontario; Julie Fontaine, Quebec.

Committee Chairs and Guests: Erik Brown, Tech Team and Wild Apricot Lead; Doug Galloway, Historian; Jim Gross, Life Membership; Karla Eisen, Honey Show Committee; Guests: Fred Smith, Rich Wieske, Richard Dimanin.

SECRETARY'S REPORT- Doris Morgan

The minutes of the October 2022 Board of Director Meeting were distributed via email. Corrections made: Leonard Davis and Janet Anker were present at that meeting. A motion was made to approve the minutes as corrected, motion seconded, voted and passed.

TREASURER'S REPORT - Jacky Hildreth

Financial reports show a poor net income compared to other years due to unrealized gains from our investments, which had a large loss. The net other income from the conference showed a \$53,000 profit which will cover all 2022 expenses. The Bank Service Charges indicated (\$8,759) were questioned. They are the charges for Pay Pal and Wild Apricot.



Wild Apricot reminders that are sent out when dues need to be renewed help keep dues payments coming in. Members on Wild Apricot are archived if they haven't paid dues in three years. Notices sent to these members have also resulted in some dues renewals.

CHAIRMAN'S REPORT – Lou Naylor

Lou and Linda Mizer have been traveling to promote EAS. The Hive Alive Conference in Tennessee provided a table for EAS. The conference was quite different from other conferences. There were over 1,800 in attendance and presentations were given to very large audiences using screens since there were close to 1,000 people in the room. The large turnout of vendors did well because many were looking to purchase supplies at that time of year.

Lou and Linda also did site inspection visits to Maryland and Michigan.

Lou and Mary Duane were interviewed by Kim Flottum for a Bee Culture pod cast.

PRESIDENT'S REPORT (EAS 2023) - Mary Duane

The theme for this year's conference at the University of Massachusetts, Amherst is Past, Present and Beyond. Keynote speakers will be Tammy Horn Potter will address past beekeeping, Judy Wu-Smart will discuss the present, and Sam Ramsey where beekeeping is going in the future.

Many sessions will be interactive with workshops and breakout sessions of smaller groups. Queen rearing, cooking, a honey judging introductory program, and microscopy sessions are some of the highlights.

Accommodation choices include an on-site hotel with continental breakfast and discounted parking and dorms suites. The suites have four individual rooms, two bathrooms, a kitchen and lounge area and are air conditioned.

Field trips to a 1,000-hive commercial beekeeping operation or the bridge of flowers and historic Deerfield, a Wednesday BBQ, Thursday buffet and auction and Friday banquet are planned social activities. A large vendor hall and some special, local "pop-up" vendor offerings will also be available. The Massachusetts Honey Queen will be at the conference and is willing to help out as well.

FUTURE SITES:

2024 Maryland David Morris shared a Power Point presentation for the August 4 - 9, 2024 Maryland conference. The theme will be Think Like A Bee and will take place at the Turf Valley Resort in Ellicott City. The resort is about twenty miles outside of Baltimore. EAS will have the entire facility for the week with on-site lodging (no dorms), classrooms, vendor hall and dining area. The contract has been signed for the facility. A tour of the Beltsville Lab is planned.

2025 Michigan Rich Wieske and Richard Dimanin shared plans for the 2025 conference at the University of Michigan Dearborn campus. The theme of Driven to Support, Educate and Promote Beekeeping was chosen. This is a commuter campus, so there will not be dorms available, but there are hotels in the area.

Erin MacGregor Forbes made a motion to accept University of Michigan Dearborn for the 2025 EAS Conference, motion was seconded, voted and passed.

COMMITTEE AND OTHER REPORTS

Website: Erik Brown

Information on the upcoming conference is on the website. The redesigned site is working well.

Wild Apricot and Technical Committee: Erik Brown

Vendor registration draft is ready and hope to go live next week. Working with Janet Anker to see if Wild Apricot can be used to link members to the historical records scanned to Box.com. Currently there are 1843 active members, 660 members with dues that need to be renewed and 572 members that have lapsed (no dues paid for 3 years). Wild Apricot has an auto renew option that some are using.

Awards:

Hambleton Award: Dr. Michael Simone-Finstrom

Roger A. Morse Award: Krispn Given

Student Award: none

Divelbiss: to be announced at the conference

Honey Bee Research Awards:

- Dr. Esmail Amiri: Evaluating the pheromone profile and acceptance rate of queens raised in different commercial queen cell cups. \$2620.00
- Dr. Juliana Rangel: Genetic diversity and populations structure of Varroa destructor across the U.S., and potential implications for Amitraz-resistant mites. \$8500.00

Erin noted that the Honey Bee Research award amounts have not been increased in many years (last increase from \$5,000 to \$10,000 was in 2016). The amount allocated is split between several winners and is usually only part of the amount required for the research. Recipients often use receipt of the award as a way to demonstrate peer support so they can apply for other grants. Although there is an HBR fund, the money awarded often comes from the general fund. She suggested that increasing the award amount be considered at a future meeting.

Finance: Jacky Hildreth

Materials are going out to the accountant. The Review board can then go over the 2022 books. Jacky is working with Fred Smith to help him transition to the position after the conference.

Historical Committee: Doug Galloway

The 2021 and 2022 materials have been added to the Box.com archive. Working with Janet Anker to get user-friendly access for members to scanned historical documents that have been archived.

A historical report is required by the Policy and Procedure Manual; it will be presented at the 2023 conference. All conference committees are urged to forward conference planning documents to Doug for inclusion in the archives.

Honey Show Advisory Committee: Karla Eisen

Everything is on track for the Massachusetts conference. Some judges planned for the 2024 Maryland conference will be helping with this year's honey show as well. Changes made to the



Honey Show rules are primarily for clarification. The only other change creamed honey will be shown in a short, not a tall, jar.

The Honey Judge Program is an introduction, not a certification, course. Since participants can attend any or all of the sessions, it will be difficult to determine if they should receive a participation certificate, but they could request one.

Journal: Linda Mizer

The winter Journal is out. The costs of printing and mailing have increased as fewer are mailed and reduced postage for bulk mailing is not available. The cost of the last issue was \$9.61 each. The amount charged to receive the Journal is less than the cost of the issues.

The deadline for the Spring issue is April 15.

Life Membership: Jim Gross

Jim needs access to Wild Apricot to get the latest information. Last fall the number was 703 Life Members. There will be a room for the Life Member lunch at the conference and Mary has arranged a speaker. The money collected for Life Membership goes into the General Fund.

Master Beekeepers: Dave Priebe

The Master Beekeepers have been discussing the possibility of forming a scholarship in memory of Ann Harmon. Also discussing the possibility of raising the fees for taking the Master Beekeeper exam so that the extra collected could be used to give those who pass the exam life membership.

Master Beekeeper Certification: Dorinda Priebe

Reminder that the deadline for signing up for the exam is June first.

The certification team will be asking for volunteers to assist with the exam. The team needs to have something – in writing – that outlines what volunteers can expect as compensation if they volunteer.

UNFINISHED BUSINESS:

Constitution and By-Laws Redundancies: Ann Fraser

Anne and John Gaut have examined the documents and determined some inconsistencies and issues due to the history of EAS Incorporation. The attached document (Proposed Bylaws revisions and Motion dated November 6, 2022) explains the history and issues that were discovered.

Anne proposed an amendment to Article 11 of the Bylaws to add a new Section 11.6, Jurisdiction, as follows:

Notwithstanding the dissolution of the District of Columbia corporation, the Constitution is and remains the primary governing document of the Delaware corporation Eastern Apicultural Society of North America, Inc., except as to jurisdiction of incorporation, and continues in full force and effect; and, in the event of inconsistencies between these Bylaws and the Constitution, the language of the Constitution will control.

The Bylaws of the Society may be amended by a majority vote of the General Membership at the annual General Membership Business Meeting. The board of directors must pass the proposed

amendment with a majority vote and it must then be published in the EAS Journal immediately preceding the general meeting. Then the amendment must then be presented and passed by a majority vote of the membership in attendance.

Anne Fraser made a motion for the Board to approve the proposed amendment and present it to the membership for approval at this year's General Business Meeting. The motion was seconded, voted, and approved.

NEW BUSINESS:

Nomination Committee:

Erin MacGregor Forbes volunteered to be Chair of the Nominating Committee. Linda Mizer, as Vice Chairman, will also be on the committee.

Elections:

John Gaut discovered that the elections held in 2015 did not meet the requirement that elections of the Chair, Secretary and Treasurer should be staggered. It was proposed that this year we elect the Chair. Doris Morgan would continue as Secretary until 2024, when an election for Secretary would be held. Jacky Hildreth would retire as Treasurer and the Board would appoint Fred Smith to serve until an election for Treasurer in 2025. Linda Mizer made a motion to elect the Chair at the 2023 meeting, elect the Secretary in 2024 and elect the treasurer in 2025. The motion was seconded, voted and passed.

ADJOURNMENT

The meeting adjourned at 9:00 pm.

Carol Cottrill

For Doris Morgan, Secretary

Eastern Apicultural Society of N. A.						
Balance Sheet Previous Year Comparison						
	Dec 31, 2022	Dec 31 2021	Dec 31, 2020	Dec 31, 19	Dec 31, 18	
ASSETS	INTERIUM					
Current Assets						
Checking/Savings						
Checking - TD Bank	33,597.68	21,137.20	1,772.79	7,647.22	34,207.28	
EAS2022 Checking	5,421.15	4,169.83	1,000.00	636.23	10,001.46	
Edward Jones Account	24,725.44	5,787.31	11,788.12	11,055.05	11,467.80	
Petty Cash	0.00	0.00	0.00	0.00	0.00	
Total Checking/Savings	63,744.27	31,094.34	14,560.91	19,338.50	55,676.54	
Accounts Receivable						
Accounts Receivable	0.00	0.00	0.00	1,220.00	0.00	
Total Accounts Receivable	0.00	0.00	0.00	1,220.00	0.00	
Other Current Assets						
Undeposited Funds	0.00	150.00	0.00	65.00	180.00	
Total Other Current Assets	0.00	150.00	0.00	65.00	180.00	
Total Current Assets	63,744.27	31,244.34	14,560.91	20,623.50	55,856.54	
Other Assets						
Certificate of Deposits	29,899.95	48,601.20	20,650.60	39,961.89	44,146.96	
EAS Endowment (DCF)	179,396.03	208,866.17	196,287.37	192,448.77	164,839.81	
EAS Endowment (FAS136)	3,280.01	3,818.83	3,386.37	3,032.09	2,597.31	
Honey Bee Research Foundation	149,822.09	174,433.96	154,680.53	138,509.66	118,638.90	
MB Youth Scholarship Fund	0.00	0.00	0.00	0.00	0.00	
Total Other Assets	362,398.08	435,720.16	375,004.87	373,952.41	330,222.98	
TOTAL ASSETS	426,142.35	466,964.50	389,565.78	394,575.91	386,079.52	
LIABILITIES & EQUITY						
Liabilities						
Current Liabilities						
Accounts Payable						
Accounts Payable	812.08	0.00	3,000.00	3,796.08	-3,431.00	
Total Accounts Payable	812.08	0.00	3,000.00	3,796.08	-3,431.00	
Other Current Liabilities						
Other Current Liabilities	0.00	0.00	0.00	0.00	0.00	
Total Other Current Liabilities	0.00	0.00	0.00	0.00	0.00	
Total Current Liabilities	812.08	0.00	3,000.00	3,796.08	-3,431.00	
Total Liabilities	812.08	0.00	3,000.00	3,796.08	-3,431.00	
Equity						
Retained Earnings	80,953.98	555.26	4,769.31			
Temporarily Restricted						
Ed Holcombe Distinguished Fu	14,000.00	14,000.00	14,000.00	14,000.00	14,000.00	
Ed & Anita Weiss Memorial Fun	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	
Honeybee Research Fund	0.00	0.00	0.00	0.00	0.00	
MB Youth Scholarship Fund	0.00	0.00	0.00	0.00	3,952.00	
Roger Morse Award Fund	0.00	0.00	0.00	0.00	0.00	
Temporary Restricted						
Total Temporarily Restricted	15,000.00	15,000.00	15,000.00	15,000.00	18,952.00	
Unrestricted Net Assets	371,010.52	371,010.52	371,010.52	371,010.52	383,168.83	
Translation Adjustment						
Net Income	-41,634.23	80,398.72	-4,214.05	4,769.31	-12,610.31	
Total Equity	425,330.27	466,964.50	386,565.78	390,779.83	389,510.52	
TOTAL LIABILITIES & EQUITY	426,142.35	466,964.50	389,565.78	394,575.91	386,079.52	

Eastern Apicultural Society of N.A. Profit & Loss Previous Years Comparison					
	Jan - Dec 2022	Jan - Dec 2021	Jan - Dec 20	Jan - Dec 19	Jan - Dec 18
Ordinary Income/Expense	INTERIM				
Income					
Donations Income	2,326.87	28,561.48	3,390.15	7,704.45	2,636.25
EAS Journal Ads/Paper Journal	0.00	0.00	0.00	160.00	950.00
Exam Income	2,200.00	1,350.00	100.00	1,500.00	2,250.00
Interest Income, Other	8,395.15	8,139.47	6,901.25	8,086.28	419.14
Membership Dues	36,520.00	23,270.00	13,470.00	22,060.00	27,265.00
Unrealized Gains/Losses	-57,793.57	41,209.15	33,985.81	46,148.00	-22,468.19
Transfers					
Total Income	-8,351.55	102,530.10	57,847.21	85,658.73	11,052.20
Gross Profit	-8,351.55	102,530.10	57,847.21	85,658.73	11,052.20
Expense					
Bank Service Charges	8,759.37	3,330.38	256.73	4,199.37	5,244.12
Board of Directors Meeting Exp.	158.89	149.90	0.00	0.00	117.94
Chairman's Discretionary Fund	0.00	250.00	0.00	0.00	0.00
Dues Reimbursement	0.00	0.00	0.00	0.00	0.00
EAS Journal Print	6,279.96	5,429.16	10,076.19	11,765.00	7,974.76
Grants	13,445.00	10,759.41	16,993.52	12,638.00	11,000.00
Insurance	3,404.00	2,428.00	2,354.00	3,074.00	2,755.00
Interest Expense	0.00	0.00	0.00	0.00	0.00
Licenses and Permits	679.00	175.00	917.73	595.00	502.51
Master Beekeeper Prog. Expense	0.00	248.50	0.00	1,071.60	0.00
Miscellaneous	0.00	0.00	0.00	0.00	0.00
Office Supplies	2,266.11	476.24	121.11	232.67	93.15
Postage and Delivery	146.11	752.67	194.26	570.74	624.46
Professional Fees	25,480.53	24,304.14	22,993.01	26,417.60	26,699.01
Program Expense	0.00	0.00	0.00	0.00	0.00
QuickBooks Payments Fees	0.00	0.00	0.00	0.00	0.00
Reproduction/Copies	0.00	0.00	0.00	0.00	457.75
Sales Tax	11,079.10	0.00	0.00	0.00	0.00
Staff Perdiem	9,298.15	12,322.94	593.56	7,763.29	14,490.58
Telephone & Internet Svc.	179.88	162.00	311.90	207.80	345.00
Web Site	5,389.77	7,289.18	3,288.00	3,854.60	4,374.72
Total Expense	86,565.87	68,077.52	58,100.01	72,389.67	74,679.00
Net Ordinary Income	-94,917.42	34,452.58	-252.80	13,269.06	-63,626.80
Other Income/Expense					
Other Income					
Conference Accomodations	49,675.00	0.00	0.00	0.00	240.00
Conference Atteendee Fees	149,064.00	51,620.00	0.00	99,978.37	148,105.00
Conference Auction	12,186.23	8,051.69	0.00	10,826.50	11,591.00
Conference Sponsorships	2,800.00	3,150.00	0.00	2,775.00	4,600.00
Conference Vendor's Fees	23,710.00	16,300.00	500.00	39,535.00	34,375.00
Honey Show Sponsorship	5,400.00	0.00	0.00	4,900.00	5,900.00
Raffle Tickets	0.00	0.00	0.00	0.00	0.00
Short Courses	0.00	0.00	0.00	0.00	0.00
Souvenirs	2,739.13	1,295.00	0.00	4,972.00	4,515.00
Total Other Income	245,574.36	80,416.69	500.00	162,986.87	209,326.00
Other Expense					
Conf. Accomodations	36,541.00	0.00	0.00	0.00	0.00
Conf. Auction	940.09	1,458.91	0.00	0.00	214.56
Awards	3,203.57	1,393.72	1,937.38	2,727.99	3,696.17
Breaks	17,344.30	1,808.75	0.00	0.00	0.00
Conference Meeting Room Exp.	34,980.00	3,525.00	1,619.00	26,153.03	21,794.96
Conference Promotional Expenses	12,434.63	1,113.00	206.78	2,179.29	3,416.28
Conference Registration	6,081.81	2,063.66	750.00	7,896.90	5,133.22
Conf. Meals Special Events	34,258.91	2,891.25	0.00	85,969.61	72,554.22
Entertainment Expense	11,767.47	0.00	0.00	269.89	115.00
Equipment Rental, Conf.	3,713.73	140.00	0.00	4,826.76	5,170.00
Honey Show Expenses	3,163.53	315.87	0.00	2,754.13	1800.13
Printing	0.00	4,887.45	82.70	5,659.45	9,490.57
Service Charge & Gratuities	0.00	1,719.40	0.00	0.00	0.00
Social	0.00	700.00	-404.50	3,131.83	8,575.70
MB Youth Scholarship Exp	0.00	0.00	0.00	1,000.00	0.00
Speakers	16,606.89	8,541.36	0.00	22,620.49	20,617.00
Master Beekeepers Expenses	1,911.24	248.50			
Vendor Expenses	0.00	0.00	0.00	3,158.00	2,090.00
Volunteer Exp.	9,344.00	3,663.68	269.89	3,139.25	3,641.70
Total Other Expense	192,291.17	34,470.55	4,461.25	171,486.62	158,309.51
Net Other Income	53,283.19	45,946.14	-3,961.25	-8,499.75	51,016.49
Net Income	-41,634.23	80,398.72	-4,214.05	4,769.31	-12,610.31

To: Lou Naylor, John Gaut, EAS Executive Committee
Fr: Anne Fraser, EAS Director for the Commonwealth of Virginia Date:
November 6, 2022
Re: Proposed Bylaws revisions and Motion

At the March 6, 2022 meeting of the BOD, John Gaut presented proposed revisions to the Bylaws of EAS. At that time, I expressed a concern that amendments that remove provisions from the Bylaws might conflict with state law requirements in the state of incorporation. I practiced law for many years in DC, and although I am retired, and corporate law was never my practice area, I inevitably developed a sensitivity to what can go wrong with inconsistent documentation. So, John and I reviewed the history and documents and I reviewed Delaware law. I reached the conclusion that there needs to be a formal clarification in the current Bylaws of the role of the Constitution in the Delaware entity. The reasons are as follows:

1. After previously being incorporated in the District of Columbia, EAS was incorporated as a non-profit nonstock corporation under Delaware law on May 25, 2011.
2. The current Constitution (published on the website) refers to DC as the state of incorporation. It does not appear to have been filed in Delaware at the time EAS was incorporated there. The District of Columbia corporation was dissolved June 10, 2011.
3. The Delaware Certificate of Incorporation¹ is a short form document. It does not spell out the classes of membership, the organizational purpose, etc. It simply refers to the Bylaws as the governing document for these items (as Delaware law permits) and makes no reference to the Constitution.
4. Because the status of the Constitution as the governing document seems ambiguous - i.e., it is not acknowledged in the Bylaws or referenced in the Delaware Certificate of Incorporation, and is tied to the dissolved DC corporation, my belief is that the Board needs to clarify that the Constitution is in fact the governing organizational document for the current Delaware entity, together with the Certificate of Incorporation, the Bylaws, and the Policies and Procedures.
5. Once that is clear, any inconsistencies could be resolved going forward by amending the Bylaws. Amending the Constitution to reflect the Delaware jurisdiction is possibly but might require filing an amended Certificate of Incorporation with the Delaware Secretary of State.

For these reasons, I will propose a motion to amend Article 11 of the Bylaws to add a new Section 11.6, Jurisdiction, as follows:

Notwithstanding the dissolution of the District of Columbia corporation, the Constitution is and remains the primary governing document of the Delaware corporation Eastern Apicultural Society of North America, Inc., except as to jurisdiction of incorporation, and continues in full force and effect; and, in the event of inconsistencies between these Bylaws and the Constitution, the language of the Constitution will control.

¹ This document is what EAS filed in order to create the new Delaware entity. It is very easy to file in Delaware and the Certificate of Incorporation which was in the proper form was approved without comment.



Constitution and By-Laws Redundancies

Ann Fraser

Anne and John Gaut have examined the documents and determined some inconsistencies and issues due to the history of EAS Incorporation. The attached document (Proposed Bylaws revisions and Motion dated November 6, 2022) explains the history and issues that were discovered.

An amendment to Article 11 of the Bylaws was proposed to add a new Section 11.6, Jurisdiction, as follows:

Notwithstanding the dissolution of the District of Columbia corporation, the Constitution is and remains the primary governing document of the Delaware corporation Eastern Apicultural Society of North America, Inc., except as to jurisdiction of incorporation, and continues in full force and effect; and, in the event of inconsistencies between these Bylaws and the Constitution, the language of the Constitution will control.

The Bylaws of the Society may be amended by a majority vote of the General Membership at the annual General Membership Business Meeting. The board of directors must pass the proposed amendment with a majority vote and it must then be published in the EAS Journal immediately preceding the general meeting. Then the amendment must then be presented and passed by a majority vote of the membership in attendance.

Anne Fraser made a motion for the Board to approve the proposed amendment and present it to the membership for approval at this year's General Business Meeting. The motion was seconded, voted, and approved.

Elections

John Gaut discovered that the elections held in 2015 did not meet the requirement that elections of the Chair, Secretary and Treasurer should be staggered. It was proposed that this year we elect the Chair. Doris Morgan would continue as Secretary until 2024, when an election for Secretary would be held. Jacky Hildreth would retire as Treasurer and the Board would appoint Fred Smith to serve until an election for Treasurer in 2025. Linda Mizer made a motion to elect the Chair at the 2023 meeting, elect the Secretary in 2024 and elect the treasurer in 2025. The motion was seconded, voted and passed.

EAS Executive Committee, Directors, and Contacts

EAS EXECUTIVE COMMITTEE

Chairman of the Board

Lou (Eloise) Naylor (2023)
633 East Main Street, Unit D1
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856-234-1799
chairman@easternapiculture.org

Vice Chairman of the Board

Dr. Linda A. Mizer (2023)
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607-227-4449
vicechairman@easternapiculture.org

President

Mary Duane (2023)
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Vice President

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President Emeritus

Bob Talkiewicz
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Chairman Emeritus

Erin MacGregor-Forbes (2020)
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