



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

VOLUME 50, NUMBER 1 WINTER 2023



EAS Master Beekeeper

DR. LEONARD DAVIS

Foulbrood

HONEY BEE HEALTH
COALITION

EAS Conference 2023

AMHERST, MA

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WELCOME, From the Desk of the President

After a long couple of years navigating in a world dominated by Covid-19 protocols, I am very pleased to report that the Massachusetts EAS 2023 planning committee is well on its way to finalizing its plans for this summer's conference at the University of Massachusetts Amherst. It is such an honor to host this prestigious conference in the Commonwealth of Massachusetts. The EAS team and Massachusetts planning committee have put together an enjoyable and informative program that is worthy of your time and expense. There is something planned for beekeepers of all experience levels. Check out the conference introduction on pages 22-31.

Mark your calendar for your Past Present and Beeyond EAS 2023 Annual Conference on July 31 - August 4th. Come for a day, come for the short course, come for the conference or better yet come for the entire week.

Immerse yourself in Everything Honeybee - EAS style.

Mary Duane

President EAS



MASTER BEEKEEPERS

Interview with Dr. Leonard Davis, EAS Master Beekeeper

Written by Dorinda C Priebe, EAS Certified Master Beekeeper, EAS Oral Exam Chair, and EAS New Hampshire Director

Like many of you, I have watched Dr. Leonard Davis from afar, curious about this steady, methodical man as he first sat for our EAS Master Beekeeper exams, then went on to complete them with flying colors. Rising to a compelling need, he agreed to host EAS 2021 conference in his home state of Kentucky while COVID-19 raged, doubters scoffed, and some states were simply paralyzed by rising numbers of cases and closed venues.

After attending Dr. Davis's short course presentation, 'Double Screen swarm prevention' at EAS 2022 in Ithaca, I told him, "I want to interview you next for our journal". Many questions had come to my mind that might have come to many of us, and Dr. Davis, while not shy, is not particularly self-promoting either. To get to know him, you have to discover what makes him tick.

As 2022 was winding down, I had the privilege of interviewing Leonard and we could have talked for hours about bees and life. This article captures the essence of our conversation.

As a child, what did you want to be when you grew up?

"I was always interested in science. I loved insects and other animals. We kept chickens and ducks, and my grandfather on my mom's side had cows, horses and bees. In sixth grade I got really interested in science and became involved with the Boy Scouts. Collecting water from Grandpa's farm pond, I could examine with my microscope to discover Copepods, Daphnia, which are very small crustaceans, jelly-fish-like hydra, and protozoa. I collected and mounted insect specimens. With a community college close by, on my own I befriended teachers and even an A&P instructor who was also interested in trains. My Grandfather on my dad's side had worked for the L & N RR on track maintenance his whole life and my own dad did 40 years in the coal mines. I loved trains but had no interest in coal mining. However, I knew these were not what I wanted to do. As a Boy Scout, I went to a city council meeting where the wife of my scout leader came in during the meeting complaining that her veterinary bills were too high. She asked 'Leonard you love animals, why don't you go to school to be a vet and come back and treat my animals for free?' " I began to think and decided that would be a great idea." "After finishing high school, I attended the Southeast Community College which is where I spent time while in high school and later transferred to the University of Kentucky in Lexington. Later, I was accepted to the Auburn University College of Veterinary Medicine where I received my Doctor of Veterinary Medicine degree in 1989."

What was your first memory of wanting to keep bees yourself?

"My grandpa had orchards of apples and pears and would harvest comb honey. I still have his smoker and frame puller. I worked with him, but wish now that I had done more. Bees were just part of a farm, not a hobby. Grandpa passed away when I was in my second year of college. I could kick myself now. Right after college I got myself some bees, I was on my own, there were no bee clubs in our area that I knew of. My barber and I got to talking, he had a bee -hive for sale but at the opposite end of the state. I traveled three hours in my old Ford Ranger truck, arriving by dark, and there was the hive, two deeps and four supers. I planned on nailing a board across the entrance and loading the hive into the truck. I realized that it would not fit into my truck in one piece due to the topper on the truck. As I started to take the hive apart, the bees were all over me, I took 16 stings

to my head alone and one bee crawled into my ear after stinging my on my lip, even through the bee suit I had put together. The veil had some holes in it. In my inexperience, this hive only lasted a couple of years and it was another 20 before I started again with 2 hives due to my busy work schedule."

At what point did Veterinary Medicine and honey bees begin to tie together for you?

"Kentucky does not see bees as livestock although the USDA and AVMA do. I started to realize—these bees have diseases like other animals. I could monitor these myself! I bought a hemocytometer to help check for *Nosema spp.* Beekeeping is truly a science! The Veterinary Feed Directive, VFD, in 2015 was another epiphany. As a vet you have to have USD APHIS class II accreditation to be able to write the VFDs. Some states work out agreements with their state vets and apiary inspectors to make this all work. "

Who or what was your inspiration to begin study to take the MB exams and how long did you keep bees before you began your exam preparations?

"A desire to know everything I possibly could, although you never stop learning. EAS Master Beekeeper John Benham encouraged me to pursue my certification. I was teaching beekeeping- and if I was going to teach, I might as well become a Master Beekeeper and share! My first EAS was Virginia, where I saw and heard Master Beekeepers. I sat in on the MB exam readout at the end of the week...then went home and studied my butt off for a year! I wanted to get this certification with all my heart. I had kept bees for a total of around 5 years prior to taking the MB exam. "

What was one thing you learned in your studies that you had not known as a beekeeper, a real "aha" moment?

"Many things! Like how important wild bees are that are pollinators - like alfalfa bees that were killed as a nuisance before becoming protected and propagated.

You picked up the threads and put together our yearly EAS conference in 2021, overcoming COVID-19 odds; what was your motivation to make that happen?

"Since I was the Kentucky Director, EAS Chair, Lou Naylor, called me one day to ask me if I could find a venue in Kentucky since UMASS was out due to Covid. I did some things, but if it wasn't for others like Lou Naylor, Linda



We need to teach the generations below us how important honey bees and wild bees are. Literally 1 of every 3 bites of our food that we eat – or more if we consider food sources for our animal feeds, is dependent on pollinators.

Mizer, Bob Talkiewicz, Erik Brown and Jacky Hildreth – they did most of the work. I knew, and they did too, that the Society must meet to keep it alive. I had no idea how much would be involved in the planning, but we met weekly, faithfully, to get it together.”

Becoming an EAS Master Beekeeper is a life-changing moment. How has your beekeeping changed through your course of study and certification?

“Increased number of hives! Keeping bees alive! I lost bees before, but now zero die-offs over winter the last 3 years. Better mite control and nutrition. I found that something Dr. Dewey Caron talks about, “creep” where increase happened incrementally to the point where the beekeeper can’t do everything, is a fact. I went from 18 to 33 to 55 but knew enough to give away and combine and get back to 33. The bees tend to grow on you!”

Conversely, as a veterinarian, how has becoming an EAS Master Beekeeper changed how you practice animal medicine?

“It has had a negative effect,” Leonard says with a laugh, “I spend more time with bees and teaching now. I have to have a life outside of vet medicine. Not to neglect my practice, but there has to be a balance. The VFD effectively “married” vet medicine to beekeeping.”

A very important beekeeper once said, “Earning your EAS MBK is one thing. That and a buck will get you a coke. It’s what you do with it to help others that counts.” What doors of opportunity to serve others have opened to you since becoming an EAS MBK?

“Many more teaching opportunities all over our state and beyond. Putting on two 3 and 4 county Bee School programs with Jake Barker, another Cornell and EAS Master Beekeeper and others. Each bee association puts on a 4-hour session weekly for four weeks on the weekend. We charge \$10.00 for each session to reserve the seat. The money goes back to each local association. I have been asked to speak at several different county

associations, the state association, and at EAS.

What is your favorite piece of beekeeping equipment?

“My favorite piece, and most underutilized, is the double screen. It is not the same as the original Snelgrove which had one single screen.” Leonard is asked to speak on his unique use of this piece of equipment and the detail, which depends on a solid understanding of bee biology, is quite fascinating.

As life-long learners, beekeepers are always reading, listening to podcasts or watching YouTube videos. What is inspiring you right now?

“I try to watch videos from universities like the University of Florida and the University of Guelph with Paul Kelly and videos from the National Honey Show. As far as books, Diana Sammataro, Clarence Collison, Lawrence John Connor, the new Dr. Dewey Caron Honey Bee Biology and Beekeeping, and Tom Seeley’s The Lives of Honeybees, and many others. Also, I read published articles about beekeeping online.”

What would you most like to impress on the next generation of beekeepers and potential EAS members?

“We need to teach the generations below us how important honey bees and wild bees are. Literally 1 of every 3 bites of our food that we eat--or more if we consider food sources for our animal feeds, is dependent on pollinators. Beekeeping should not be a lost art! I’m currently writing a monthly article called The Honey Bees’ Physician that is published monthly in the Kentucky State Beekeeper’s Association online newsletter known as Beelines sharing about bee disease. This is available to all of the members of the state association. I would encourage the next generation of beekeepers to step up and volunteer in your local, state, and national bee clubs.

Dr. Leonard Davis is accomplished in both his vocation and his avocation. His EAS Master Beekeeper Certification brings a new level of expertise to his teaching. Continuing to serve EAS as a speaker, an Oral Examiner and on the EAS Board as Director for Kentucky, Leonard sets the pace as a shining example of dedication and generosity. Thank you, Dr. Davis!

GRANTS & SCHOLARSHIPS

Call For Nominations

DIVELBISS AWARD

At each annual conference, the Eastern Apicultural Society presents the Charles and Evelyn Divelbiss Education Award. This award is presented to that person or couple who has—over a period of years—reached out to the non-beekeeping public to explain the value of honey bees in our lives.

The nominee does not need to be from your own state

or province. You may wish to announce this request for nominations at beekeeping meetings and in their newsletters. Feel free to contact officers of state and local organizations to request their suggestions for possible candidates and letters of support.

The nomination process is easy. Write a letter outlining how the candidate has reached the public over the years. Groups such as 4-H clubs, scouting organizations, school groups, community organizations, Lions Clubs, and garden clubs, as well as media interviews and exhibits at county and state

fairs, qualify as non-beekeeping public.

Although the main criteria are edification of the public, the letter may also include activities that teach Short Courses and other instructional work toward educating beekeepers and prospective beekeepers. The nominee does not need to be a member of EAS (but the Society would be delighted if the recipient would join).

The deadline for submissions is April 30, 2023. Nominations and letters of support should be emailed to Secretary@easternapiculture.org.

THE JAMES I HAMBLETON MEMORIAL AWARD

was established by the Eastern Apicultural Society of North America to recognize research excellence in apiculture. James I. Hambleton was graduated by Ohio State University, Columbus, Ohio, in 1917, where he specialized in bee-keeping and entomology. From that time until he entered the Bureau of Entomology in 1921, he was engaged in beekeeping work at the University of Wisconsin, except when he was in France during the First World War. At the bureau he conducted important investigations on the relation of gain in colony weight to changes in temperature, humidity and other outside factors. In 1924 he was appointed Chief, Division of Bee Culture at the Bureau of Entomology. One of his major contributions was to bring together the books, pamphlets, and periodicals formerly kept in individual offices of the Division. Material from medical, biological, agricultural, and other non-beekeeping periodicals and abstract journals were indexed regularly by the librarian to reflect the changing interests of the scientists employed by the Division of Bee Culture. Most articles selected were obtained from the original rather than being added unverified. This was the beginning of the Agricultural Research Service Beekeeping Bibliography which is of historical as well as current interest. It contains summaries, abstracts, and citations to books, pamphlets, and periodicals relating to beekeeping covering the period 1905-1973 without interruption and is probably the oldest available in the English language. His laboratory continued a wide range of research into honeybees and in 1942 he and his co-workers invented a trap to collect pollen by the ton.

THE ROGER A. MORSE OUTSTANDING TEACHING/EXTENSION SERVICE/REGULATORY AWARD SUPPORTED BY ANITA WEISS

FOUNDATION is given annually to recognize an individual in teaching/extension and/or regulatory activity in the field of apiculture. Nominations for this award are welcome from any person in the field of apiculture. Self-nominations are acceptable. Nominations shall consist of a letter documenting the achievement of excellence in any or all the areas of teaching/extension and/or regulatory activities in apiculture. Some indication of the appointment responsibilities should be included. In addition, a suitable CV or resume documenting the activities of the nominee must be submitted.

THE EAS STUDENT APICULTURE AWARD

was established to recognize students studying apiculture at the undergraduate or graduate level in a recognized college or university in the United States or Canada. Each award nomination must include a biographical sketch of the nominee, a list of his/her publications, specific identification of the research work on which the nomination is based, and an evaluation and appraisal of the accomplishment of the nominee, especially of work in the last five-year period for Hambleton Award nominees (or a shorter period for Student nominees). A minimum of one letter of recommendation, in addition to the nomination letter, in support of the nomination are also required; additional support letters are welcome.

Nominations are now being accepted for all three awards. The awards for 2023 will be presented at the Awards Banquet that will be held on Friday, August 4th at the annual conference of the Eastern Apicultural Society on the campus of the University of Massachusetts, Amherst, MA.

Nominations and letters of recommendation should be emailed to: Awardnomination@easternapiculture.org and received no later than February 1, 2023.

Resubmissions from a previous year should be updated if necessary, and a new cover letter should be attached which should indicate that this is a resubmission and relevant data is already in EAS possession.



EAS Foundation for Honey Bee Research

CALL FOR PROPOSALS, 2023

The EAS Foundation for Honey Bee Research is a competitive grant program developed from donations received from beekeepers and others interested in funding research on topical problems in honey bees.

Proposals are solicited annually with award amounts to be determined the spring before the EAS annual meeting. Requests for “seed money” to provide investigators the opportunity to collect preliminary data or as “add on” funds to combine with other funding sources to continue present research will also be considered. Requests for support for student projects (undergraduate summer employees/ graduate student) or for equipment/ supplies for distinct research projects are given highest priority. We welcome separate discrete project proposals and requests that identify pieces of ongoing research programs where additional funds can accomplish an objective of a larger program. Grant funds may be used for supplies, equipment, salaries, travel necessary for data collection or other research tasks, or other appropriate uses by the recipient. As a nonprofit organization, the EAS Foundation does not pay overhead on funded research grants.

The total amount to be awarded in 2023 is \$10,000. The awards will be announced at the EAS 2023 Conference but available by April 1, 2023. The principle investigator may be invited to present their findings at the 2024 EAS Annual Conference; travel and lodging costs associated with presenting will be covered by EAS; and we will publicize the award to aid in solicitation of additional funds for subsequent years. An article for the EAS Journal summarizing the research and results must be submitted by September 1, 2024.

Deadline for application is February 1, 2023. Additional submission details can be found at www.easternapiculture.org/honey-bee-research, and further inquiries can be directed to HoneyBeeResearch@easternapiculture.org.

Proposal Submission Criteria

1. Proposals are welcome from any individuals conducting research on honey bees. The role the investigator will perform if awarded the funds should be clearly stated.
2. Proposal should briefly outline the objective and a plan of work, to be completed within one year of funding, and a justification for the proposed work. If intended as “seed money,” the proposal should clearly state how the

funds will enable the investigator to secure additional funding for project continuation. Proposals should not exceed five written pages in total length (double-spaced) excluding title page, budget, and résumé. Only electronic submissions will be accepted.

3. Proposal must indicate how results will be disseminated if grant is funded. Investigators must present their work through the EAS journal (in summary form) and to a future EAS annual meeting, if possible, but other funds should be used for this. An acknowledgment of EAS support should be included in any presentations or publications resulting from the research.

4. The proposal should be arranged in the following format:

- a. cover page to include title, name, address, e-mail, and telephone of investigators(s) and title/ affiliation of investigator
- b. justification
- c. objective(s)
- d. project description
- e. plan of work/timetable
- f. budget
- g. short (half page) résumé of each participant
- h. name of principal investigator to appear on every page of proposal (very important)

5. Electronic copy of the proposal should be submitted by February 1, 2023 to the email account, HoneyBeeResearch@easternapiculture.org

Proposal Review Process

EAS will review each proposal with a three-person proposal review board. One person is a member of the Board of Directors while the remaining two are researchers (the Board member may be a researcher). None of the panel will have a direct connection to any research project for which a proposal has been submitted. In cases of conflict that panel member will be excused from voting.

Evaluation of proposals will be made on the following criteria: scientific merit, relevance of the proposed project to beekeeping, reasonableness of the budget proposal to the actual work to be performed, potential for securing or adding to funding from other sources, and finally, interest of proposed research to EAS members. All funds must be expended during the year of the grant and an accounting of expenditures made available to the EAS treasurer by the end of the year of the grant.



Mann Lake EAS Youth Scholarship

EAS members: we need YOU !! To find deserving young beekeepers interested in coming to EAS.

The Master Beekeepers administrate the Scholarship and Mann Lake funds it.

This is a competitive scholarship open to young people ages 18-25 at time of the conference. If the applicant is a veteran the upper age is 30. Applications are due April 30.

The scholarship pays for most of the one week EAS conference expenses.

Most of you who came to 2022 EAS met Claire Green, our 2022 Mann Lake EAS Youth Scholar. Bee research is big in Claire's plans; read her essay of her experience at EAS 2022 in this issue of the Journal.

For info and application: Go to the Eastern Apicultural Society web page, click on “Master Beekeepers”, and click on “scholarship”.

Submitted by Brenda Kiessling

HONEYBEE HEALTH COALITION

IDENTIFYING AND MITIGATING FOULBROOD IN HONEY BEE COLONIES AND REDUCING THE USE OF ANTIBIOTICS INFORMATION FOR BEEKEEPERS AND VETERINARIANS



On January 1st, 2017, the Food and Drug Administration (FDA) enacted a Veterinary Feed Directive (VFD) rule regarding the use of medically important antibiotic treatments on food-producing livestock, including honey bees. This ruling requires beekeepers to obtain an order from a veterinarian prior to purchasing antibiotics for their honey bee colonies.

The treatment of two bacterial diseases is affected by this ruling: American foulbrood (AFB) and European foulbrood (EFB). This document outlines how to test for AFB/EFB and what to do if there is a positive diagnosis.

About American Foulbrood and European Foulbrood

American Foulbrood (AFB) and European foulbrood (EFB) are bacterial diseases that affect developing honey bees (brood). Adult bees can be carriers for both diseases, but do not appear to be affected by either. The spread of both AFB and EFB between colonies occurs when bees drift from infected colonies to healthy ones, when bees rob an infected colony that has weakened, or when beekeepers move infected equipment or honey.

AFB is caused by the spore-forming bacterium *Paenibacillus larvae*. American foulbrood is generally deadly to the colony, and the spores can remain in equipment and honey for decades. EFB is a disease caused by the non-spore-forming bacterium, *Melissococcus plutonius*. While this disease may lead to colony death, colonies with EFB may also spontaneously recover.

To prevent or limit the spread of AFB and EFB, beekeepers should consider implementing biosecurity principles.

- Yards should be kept separate as much as possible and mixing of equipment should be minimized. In large operations, where yard separation is not feasible, beekeepers should employ a barrier system, splitting their operation into smaller, separate parts.
- Hive tools should be cleaned between yards or after use on a hive with visible signs of disease. Items that are frequently touched such as gloves, smokers, steering wheels etc. should be frequently cleaned and disinfected.
- Honey from other operations should never be used as feeding, and incoming equipment (frames or splits) should be kept separate as long as feasible. It is important to note that the pathogens for both EFB and AFB are common in hives that do not exhibit any signs of disease.
- Beekeepers should minimize drifting and robbing through entrance reduction and hive placement.

Testing and Management of Foulbrood Disease

American Foulbrood (AFB)

HOW TO CONFIRM AFB

Use multiple methods to corroborate results. If you are not confident in your examination, have the colony examined by an individual trained in disease identification, such as a state apiary inspector or extension specialist where available.

1. Visual inspection:

- Capped cells are perforated, sunken, and greasy-looking, often with a caramel-colored liquid; late-stage larvae or early stage pupae look sickly, discolored (coffee brown to dark brown).
- A dark scale (desiccated larval remains) is present on the lower cell wall. It is stuck tightly and is not removable without comb damage.
- Extended pupal proboscis (false tongue) stretching from the lower cell wall to the upper cell wall – unique to AFB but rarely present.
- Distinctive foul odor – not always present, and not easily identifiable to those not familiar.

2. Conduct the “ropiness”/ matchstick test.

Select a brood cell that looks infected but not dehydrated (the prepupa/pupa structure is still evident and gooey). Take a matchstick or similar wooden implement to swirl the contents of the cell and slowly withdraw them. If the contents rope out an inch in length (>2 centimeters), the cell is most likely infected with AFB.

3. Use a Holst Milk Test

Put the contents of a few diseased cells into a tube with highly diluted skim milk (kits can be made by keeping a small amount of non-fat dry milk in a small tube with a toothpick). Shake well and incubate for 15 minutes. Positive samples will bind to milk proteins removing the cloudiness from the liquid.

4. Use a commercial lateral flow device

Kits are available from several bee supply companies.

5. Send a sample to a diagnostic lab.

The USDA ARS lab in Beltsville accepts samples from within the United States and other labs are also available to accept shipped samples. Ensure that you follow the sampling and contact instructions carefully.

WHAT TO DO IF AFB IS CONFIRMED

1. AFB is a reportable disease in some states. Contact the state/provincial apiary inspector to report and follow their instructions.
2. If state regulations allow, and it is early in the season, adult bees can be shaken on to new equipment (foundation), fed syrup, and provisioned with antibiotics (shook swarm).
3. If a shook swarm is not allowed in your state as treatment for AFB, or it is late in the season, the adult bees must be euthanized. Euthanasia should be as quick as possible. Either use an insecticide, or close up the bottom of the hive and pour 70% isopropyl alcohol onto the bees, and seal the top.
4. **All Frames (brood and honey) from hives with confirmed AFB must be destroyed.**
 - Burn and bury – If local ordinances allow, it is ideal to burn and bury wooden equipment. Dig a large pit and burn the equipment in the pit, covering the ashes.
 - Send to landfill – For plastic/ polystyrene equipment, or if burning is not available, double bag all bees and frames in heavy-duty trash bags and send to a landfill.
5. Hive bodies, covers, and bottom boards can be destroyed with the frames or they may be sterilized if facilities are available.
 - Scorching with flame followed by dipping in hot wax (10 minutes at 160°C).
 - Irradiation – Some gamma irradiation sanitation facilities accept bee equipment.
6. Antibiotics can be used to control the spread of disease from adult bees (in remaining hives in the yard or bees on new equipment).
 - Request antibiotic sensitivity testing at the USDA diagnostic lab.
 - Obtain an order from a veterinarian.
 - Follow instructions closely, being careful to apply on schedule and adhere to safe withdrawal times for honey.
 - Only use antibiotics in conjunction with frame destruction, as antibiotics do not kill spores, and will not save already infected larvae. Antibiotics only control spread of disease to new larvae by adults carrying spores.
7. Prevent further spread.
 - Frequently inspect for signs of disease.
 - Do not use equipment from that yard in other parts of your operation for one year.

European Foulbrood (EFB)

HOW TO CONFIRM EFB

Use multiple methods to corroborate results. If you are not confident in your examination, have the colony examined by an individual trained in disease identification, such as a state apiary inspector or extension specialist where available.

1. Visual inspection:

- Larvae twisted in cell (corkscrew shape).
- Discolored larvae can be yellowish, gray or brown.
- Larvae with visible trachea – larvae look transparent with visible lines.
- Larvae with loss of internal pressure, appear ‘melly’.
- May have holes in cappings, sunken cappings.
- Dark rubbery scale on bottom cell wall - is easily removed from cell without damage.
- May be odorless or mildly sour

2. Use a commercial lateral flow device

Kits are available from several bee supply companies.

3. Negative results for other tests

European foulbrood disease is often mistaken for other diseases including AFB, chalkbrood, and parasitic mite syndrome (PMS). It is often helpful to rule out other diseases:

- High varroa mite counts – likely PMS
- Rope test or Holst milk test - AFB
- Presence of chalk-like mummies – chalkbrood.

Be aware that co-infection of EFB with chalkbrood and sacbrood is common.

4. Seasonality can aid in diagnosis. EFB is common following a strong honey flow (late spring in northern states). Larval disease that appears in the late fall is more likely related to high levels of the varroa mite.

5. Send a sample to a diagnostic lab.

WHAT TO DO IF CONFIRMATION OF EFB IS CONFIRMED

1. Colonies with EFB may spontaneously recover. Watchful waiting may be employed. Carefully inspect all brood frames of all colonies in the yard, noting the level of infection (approximate number of diseased cells / hive). If disease lessens, no further action is required.
2. Worker bees can be shaken onto new equipment (shook swarm method), and brood frames destroyed. This can be done without or in conjunction with antibiotics.
3. Antibiotics can be used after a positive diagnosis of EFB for hives with signs of disease, as well as other hives in that yard, as the bacteria is generally present in adult bees in hives in yards where disease is present.

Reminder

Some states require that the beekeeper report bacterial diseases to the apiary inspection service. More information can be found on the Apiary Inspectors of America website: <https://apiaryinspectors.org/>



AFB Diagnosis Kit
Photo Credit: Vita Bee Health

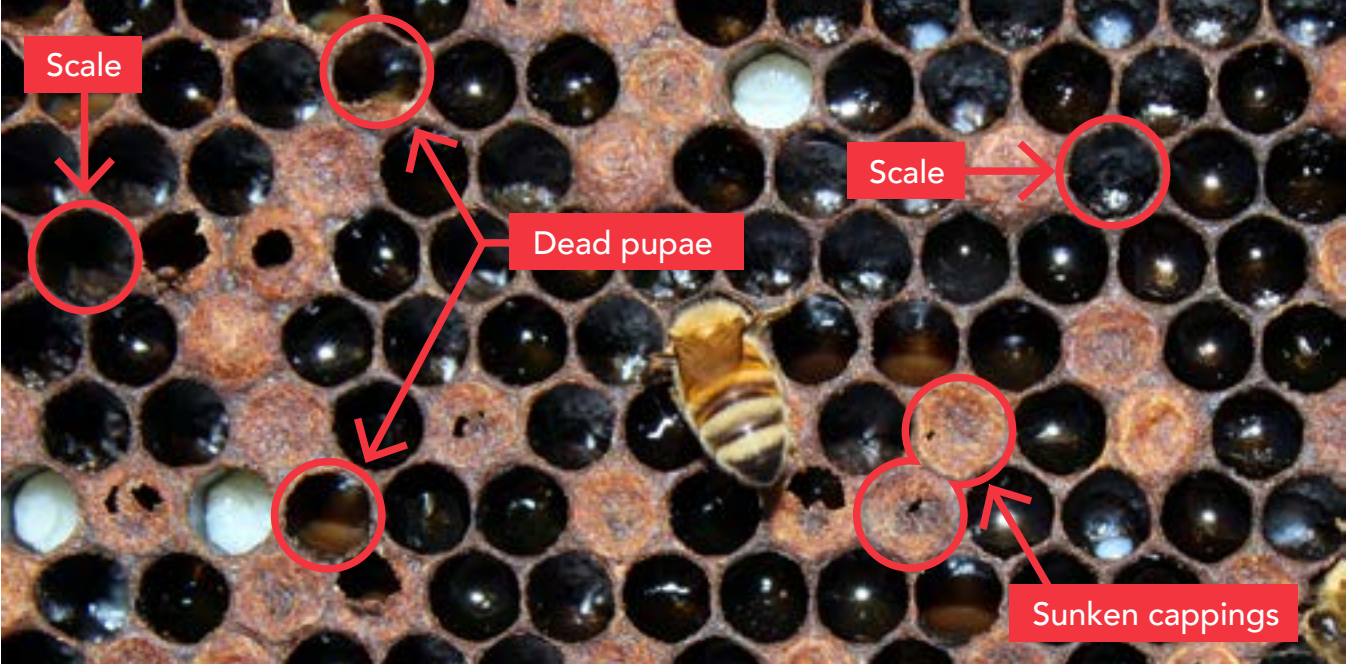


Figure 1. AFB sunken cappings, dead brood and scale
Photo credit: Rob Snyder, Bee Informed Partnership



Figure 2. Rope test confirming AFB infection
Photo credit: USDA



Figure 3. "False" pupal tongue (sign of AFB)
Photo Credit: Scott Camazine, Penn State University



Figure 4. Yellowing larvae (sign of EFB)
Photo Credit: Rob Snyder, Bee Informed Partnership



Figure 5. Larva twisted in cell (sign of EFB)
Photo Credit: Canadian BMP for Honey Bee Health

Concern about Antibiotics

Antibiotics are drugs used to treat harmful bacterial infections. However, the misuse and overuse of these drugs can result in bacteria developing resistance to the antibiotic. Antibiotic-resistant bacteria can make treatments ineffective, prolong infections, and spread to otherwise healthy organisms. To prevent the development of antibiotic-resistant bacteria, antibiotics should be used judiciously. Beekeepers should take measures to prevent the pathogens from entering their operation and to minimize their spread within their operation. Beekeepers and all of their employees should be well trained to recognize disease and should frequently screen colonies so that diseases are caught early and can be controlled. If antibiotics are used, label instructions must be followed exactly.

How do beekeepers access antibiotics?

1. **Establish a veterinary-client relationship with a veterinarian.** Beekeepers must obtain an order from a veterinarian in order to access antibiotics. Before a veterinarian can issue an order, they must have established a veterinary-client-patient relationship (VCPR). Most states follow the federal definition, but some states have additional requirements as to what constitutes a VCPR. More information can be found at the FDA website: <https://tinyurl.com/VDFFDA16>.
2. **Determine the antibiotic formulation.** As of 2022, three antibiotics are available for use in honey bees: oxytetracycline, tylosin, and lincomycin. All three have formulations for use in the control of AFB, but only oxytetracycline is labeled for control of EFB. The website Animal Drugs @ FDA: <https://animaldrugsatfda.fda.gov/> has more information - searching for "honey bees" on this site will provide you with all available formulations and sample information. This site also contains Blue Bird labels with additional directions for antibiotic application.
3. **Obtain an order.** The Animal Drugs @ FDA site will indicate what type of order the veterinarian must write: a veterinary feed directive (VFD) or a prescription. If the drug is available through a prescription, the drug can be purchased through a pharmacy. Antibiotics that are available through a VFD can be purchased at a licensed feed mill.
4. **Purchase the antibiotics.** Once the order has been submitted, the beekeeper can purchase the antibiotics from the pharmacy or licensed feed mill/ bee supply company. It may be difficult to find pharmacies that can fill small quantities of honey bee drugs, so veterinarians should work with beekeepers to make sure they can access what they need. Most major beekeeping supply companies are now licensed feed mills, so the veterinarian will send the VFD directly to the supply company. The FDA website <https://animaldrugsatfda.fda.gov/> has a listing of all federally registered feed mills under the "Medicated Feeds" Section.
5. **Apply the antibiotics.** Antibiotics should be applied exactly as specified by the label. It is important to complete all applications of the antibiotic, even if it appears that the colony is recovering.

Can AFB be eradicated?

Eradication of AFB is possible, especially as new sensitive screening tools become available, and as more veterinarians and diagnostic labs are trained to identify AFB. Eradication requires that beekeepers work together to eliminate colonies with active infections of AFB, and are frequently screening for signs of disease. This requires destroying brood/honey frames and all adult bees by burning or burying. Here are the steps for eradication of AFB:

1. Monitor colonies frequently, especially during the spring and early summer period when brood is abundant and the colony is in a growth phase. Know how to identify all the varied signs of an AFB infection, and be prepared to act quickly when signs are detected. Remember, early detection saves hives!
2. If symptoms of AFB are detected, contact your state apiary inspection service for treatment options, and destroy all frames from infected hives immediately. Monitor all colonies in the yard closely, and take action to prevent robbing.

Resources

- Food and Drug Administration – Using Medically Important Antimicrobials in Bees – Questions and Answers (<https://tinyurl.com/VDFFDA1>)
- Bee Culture – Do I Need a Vet for My Bees? (<https://tinyurl.com/VDFFDA2>)
- Diagnosing and Treating American Foulbrood in Honey Bee Colonies. (<https://tinyurl.com/mrxxdc7w>)
- Honey Bee Biology and Beekeeping by Dewey Caron and Lawrence Connor, 2022 Wicwas Press
- State/provincial bee inspection services: <https://apiaryinspectors.org/inspection-services/>
- American Veterinary Medical Association (AVMA) Honey Bees 101 for Veterinarians (<https://bit.ly/VDFFDA15>)
- National Veterinary Accreditation Program, Module 30: The Role of Veterinarians in Honey Bee Health (<https://tinyurl.com/VDFFDA4>)
- University of Florida – Webinar: Veterinarian's Guide to Honey Bee Antibiotics (<https://tinyurl.com/VDFFDA5>)
- University of Maryland Honey Bee Health Seminar for Veterinarians (<https://tinyurl.com/VDFFDA6>)
- Diagnosis of Honey Bee Diseases (<https://tinyurl.com/VDFFDA12>)
- Honey Bee Medicine for the Veterinary Practitioner. Wiley Press

- Guidance for Industry (#120) – Small Entity Compliance Guide Veterinary Feed Directive Regulation Questions and Answers (<https://tinyurl.com/VDFFDA7>)
- Guidance for Industry (#233) Veterinary Feed Directive Common Format Questions and Answers (<https://tinyurl.com/VDFFDA8>)
- Honey Bee Veterinary Consortium (<https://tinyurl.com/VDFFDA9>)
- Find a Bee Vet (<https://tinyurl.com/VDFFDA17>)
- Shaking is an Effective and Profitable Method for Managing AFB (<https://tinyurl.com/VDFFDA14>)

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AUTHOR ACKNOWLEDGMENTS: Dr. Meghan Milbrath (Michigan State University), Mary Reed (Texas Apiary Inspection Service and Apiary Inspectors of America), Dr. Dewey M. Caron (Western Apicultural Society, Emeritus Professor University of Delaware, and Affiliate Faculty Oregon State University), Dr. Jay Evans (USDA-ARS Bee Research Lab) and Dick Rogers (Bayer Bee Care Center).

The Honey Bee Health Coalition Steering Committee

The Honey Bee Health Coalition Steering Committee attempted to meet in Denver on Jan. 19 for a “pause and reflect” meeting to review and discuss current HBHC initiatives. However, Winter Storm Iggy had other plans. As EAS representative, I had flown to Colorado a few days prior to the meeting to spend a few vacation days at Glenwood Springs. Winter Storm Iggy began the day after I arrived, and the interstate between Glenwood Springs and Denver was in the words of Colorado Dept. of Transportation, “abominable.” I joined the meeting on Zoom for an hour before heading over the Rockies to return to the airport. In short, here is my brief report.

- The 8th edition of the Tools for Varroa Management Guide was released in 2022.
- The 2nd edition of the Foulbrood Guide was released in 2022. This resource has been helpful to veterinarians because the Veterinary Feed Directive has meant that it is more difficult for beekeepers to get antibiotics without a prescription (or VFD) from a vet
- HBHC is in process of developing Pollinator-Friendly Utility-Scale Solar Projects (outline has been developed)
- Work has begun on a Honey Bee Nutrition Guide (a North American version of “Fat Bees, Skinny Bees” from Australia)
- Released Best Management Practices for Pollinator Protection in Apples.
- Translated the Varroa Guide and Commercial Varroa Guide into Spanish
- Held monthly meetings of the growing Varroacide Resistance and Testing Team

As the group discussed future opportunities, I suggested that HBHC focus on spotted lanternfly, an invasive that currently is in Pennsylvania, Maryland, Ohio, and close to Kentucky. The beekeeping industry could work with the grape-and-wine industry to develop controls for this invasive insect. Currently, there are no predators for spotted lanternfly in the U.S.

The spotted lanternfly not only impacts orchards and wine-and-grape vines, it impacts presents the honey industry. The spotted lanternfly excretes honeydew that the honey bees inadvertently take back to the hive, where it is mixed with floral nectars.

There is also more desire to develop further initiatives on forage and pesticide issues. The Coalition will be developing specific projects on these in 2023.

Even though half of the Steering Committee could not attend in-person due to the winter storm, I have the sense that the discussion was productive as new topics to consider were discussed.

Tammy Horn Potter, KY State Apiarist
Kentucky Department of Agriculture



FEATURED ARTICLES

Notes from the Lab: The Latest Bee Science Distilled

By Scott McArt as published in American Bee Journal, November 2021



Scott McArt is an assistant professor of pollinator health and helps run the Dyce Lab for Honey Bee Studies at Cornell University in Ithaca, New York. He’s particularly interested in scientific research that can inform management decisions by beekeepers, farmers, regulatory agencies, and the public.

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Bees forage more in apple orchards when they aren’t in bloom compared to when they are.

In the July 2022 issue of *Notes from the Lab* [162(7):795-797] I summarized a study from Michigan showing about three quarters of pesticide risk to honey bees conducting blueberry pollination comes from pesticides that aren’t registered for use on blueberries. Honey bees were simultaneously exposed to an average of 35 pesticides in pollen they collected during bloom, and the vast majority of exposures came from pesticides not used on focal farms or not used in blueberry at all.

We see this same non-intuitive pattern of pesticide exposure during New York apple pollination. For example, across 30 farms, more than two thirds of pesticide risk to honey bees conducting apple pollination comes from pesticides that aren’t sprayed on those farms during bloom (McArt et al. 2017).

How can these results be explained? Well, clearly many foraging bees must be flying outside of orchards. But where exactly are they foraging during bloom of a pollination-dependent crop like apple? How far from their colony are they foraging? And what about after bloom when growers of most pollination-dependent crops

start spraying insecticides? How much foraging occurs in orchards after bloom, potentially exposing bees to high-risk insecticides? These are the topics for the fifty-ninth *Notes from the Lab*, where I summarize “*Apple orchards feed honey bees during, but even more so after, bloom,*” written by Taylor Steele and colleagues and published in *Ecosphere* [2022].

For their study, Steele and colleagues set up three observation hives at the Virginia Tech agricultural research and extension center (AREC), which is devoted to fruit crop research, mostly apples (see Photos 1 & 2). The landscape within a 2-km radius of the colonies was comprised of apple orchards (16%), forests (25%), and other landcover (59%), including grass/pasture, non-alfalfa hay, corn, soybean, developed/open space, and other crops (Photo 3). This is a typical landscape surrounding small- to medium-sized apple orchards in the Eastern U.S. Each colony was managed to decrease the likelihood of swarming and fed supplemental sucrose when needed.

In total, six colonies were monitored in 2018 and 2019. The authors filmed foraging bees communicating via the waggle dance on the “dance floor” (the bottom frame of each observation hive) 3-4 times per week for the entire growing season (April-October). Because the waggle dance is a classic honey bee behavior for communicating the distance and location of good forage, a brief explanation is worthwhile.

The waggle dance is comprised of two parts: the waggle run, which is



Photo 1 Lead author Taylor Steele in front of the shed containing the three observation hives monitored during the study



Photo 2 The 3-frame observation hives (covered with blankets) monitored during the study

the information-rich portion of the dance, and the return phase. During the waggle run, a forager oscillates her abdomen at a specific angle relative to vertical for a particular duration of time, which indicates direction and distance, respectively. Then she stops, loops around to the left or right (return phase) and repeats the waggle run+return phase combination a variable number of times, with greater repetition indicative of greater resource quality.

By the end of the study, the authors had recorded 625 hours of “dance

floor” videos, which were meticulously viewed, dancing foragers identified, and 3,710 individual waggle dances decoded. In other words, the authors had a very comprehensive dataset to reveal where honey bees were foraging over the course of two successive growing seasons.

So, what did they find? How far did honey bees forage from their colony throughout the season? As seen in Figure 1, some bees foraged over 11 km from their colony. But long-distance foraging was rare. The median foraging distance across both years was only 0.78 km and the upper quartile (i.e., the max foraging distance for 75% of bees) was just over 1 km. In other words, the majority of bees foraged within 1 km of their colony.

There was seasonal variation in how far from their colony workers foraged, but the only consistent pattern across years was a trend for greater foraging distance in May compared to other months. Notably, early May corresponded with peak apple bloom each year.

Did honey bees forage primarily in apple orchards during apple bloom? No. As seen in Figure 2, only 20% of foraging occurred in apple orchards during bloom (19% in 2018 and 21% in 2019). This is slightly greater than the 16% of surrounding land comprised of apple orchard (i.e., the horizontal red dashed line in Figure 2), but it certainly doesn’t indicate

a strong preference for foraging in apple during bloom.

Instead, a greater proportion of foraging occurred in forests during apple bloom. In 2018, 37% of foraging occurred within forests and in 2019, 33% of foraging occurred within forests. Both of these percentages are quite a bit higher than the 25% of surrounding land comprised of forest (i.e., the horizontal black dashed line in Figure 2), indicating a preference for foraging in forests during apple bloom.

Beyond apple orchards and forests, about 45% of foraging occurred in other landscape types during apple bloom, including grass/pasture, corn, soybean, developed/open space, and other crops.

What about after bloom? Where did bees forage post-bloom? Perhaps most surprisingly, more honey bees foraged in apple orchards after bloom compared to during bloom! This can be seen in Figure 2, where 29% of bees foraged in orchards after bloom compared to 20% during bloom (red points and lines) averaged across both years. Conversely, a smaller percentage of bees foraged in forests after bloom compared to during bloom (black points and lines).

Well that’s interesting. Why would honey bees forage so much in apple orchards after bloom? Clearly, attractive food resources became available in orchards after apple bloom. At the same time, previously attractive food

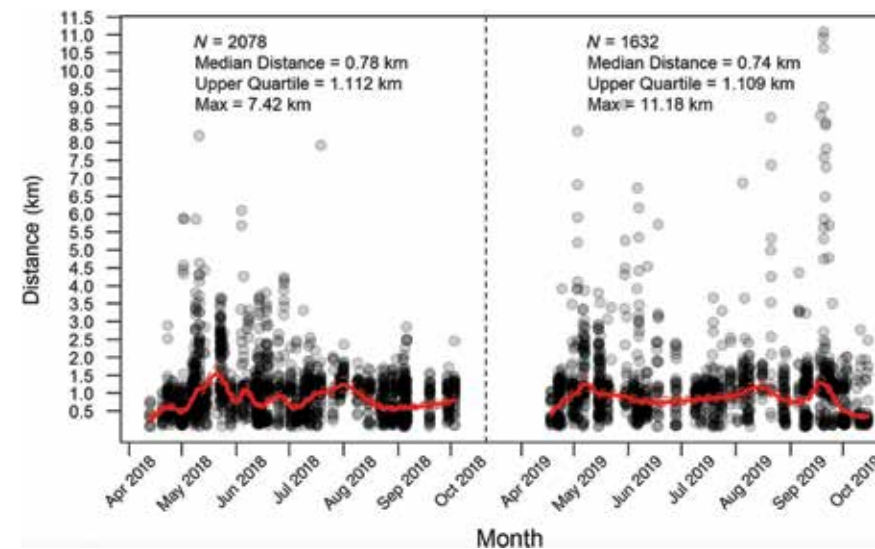


Fig. 1 Foraging distance as communicated by dancing honey bees across the foraging season in both 2018 and 2019. Predicted foraging distances are shown for $n = 3,710$ waggle dances across the two years. Moving average (median) foraging distance through time is shown via the red line.

resources in places such as forests potentially became less available. To look into this, the authors surveyed the orchards after bloom, finding 40 species of plants that bloomed through the remainder of the season. Especially abundant were white and red clover (*Trifolium*) and plantain (*Plantago*), each of which bloomed after apple. As we all know, honey bees love clover, which probably drew them in.

So what does all of this mean? Well, everyone knows bees strongly prefer to forage in apple orchards during bloom and then forage elsewhere after bloom, right? *Wrong*. From a fundamental perspective, the paper from Steele and colleagues shows honey bees forage in very non-intuitive places.

From an applied perspective, this study reveals a lot about where honey

bees could be exposed to pesticides during and after bloom of a pollination-dependent crop. Simply put, the answer is that pesticide exposure can potentially occur nearly anywhere, anytime, since bees are constantly foraging throughout agricultural and non-agricultural landscapes. That realization certainly helps explain why many high-risk pesticide exposures during Michigan blueberry pollination and New York apple pollination aren’t coming from blueberry plantings or apple orchards.

The study from Steele and colleagues also sets up the possibility that researchers could track exactly when and where foraging bees are exposed to pesticides in mixed agricultural landscapes, ultimately identifying sources of non-intuitive high-risk exposures, then working to reduce

those exposures. If you realize the importance of this possibility as much as me, stay tuned for another paper that’s currently in the works from this excellent team of researchers.

Until next time, bee well and do good work.

Scott McArt

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Taylor Steele earned her M.S. degree in the Couvillon Lab at Virginia Tech, which investigates how honey bees collect their food in the landscape. For questions or comments related to this study, please contact Dr. Maggie Couvillon, Assistant Professor of Pollinator Biology and Ecology in the Department of Entomology at Virginia Tech.



Photo 3 The Virginia Tech agricultural research and extension center (AREC; <https://www.arec.vaes.vt.edu/arec/alson-h-smith.html>) in Frederick County, Virginia, where observation hives were placed and monitored from April-October in 2018 and 2019

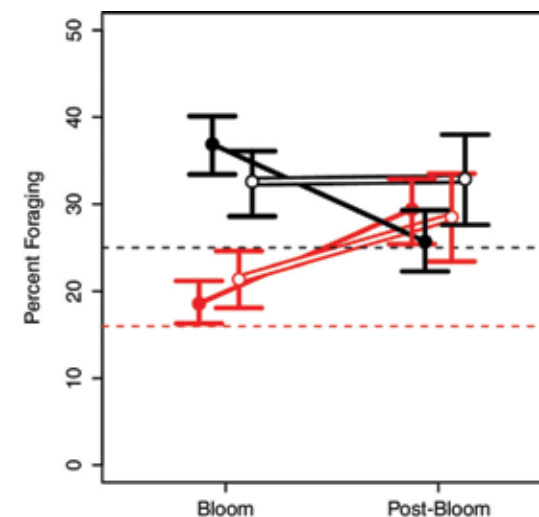


Fig. 2 Percent foraging in apple orchards and forests as a function of apple bloom, calculated during and after apple bloom. Foraging to apple orchards (red) increased from bloom to post-bloom for both 2018 (18%-21%, connected by a solid red line, medians symbolized with red points) and 2019 (21%-28%, connected by a red line with white fill, medians symbolized with white points), with the apple orchards representing 16% of the landscape (dashed horizontal red line). By contrast, percent foraging to forests (black) decreased from bloom to post-bloom for 2018 (36.9%-25.7%, connected by solid black line, medians symbolized by black points) but remained consistent for 2019 (32.6%-32.9%, connected by black line with white fill, medians symbolized by white points), with forests representing 25% of the landscape (dashed horizontal black line). Data represent all the decoded dances during that time period, mapped on the landscape, and calculated as being within an area of interest (apple orchard or forest) or not.

News from the EAS Honey Show

Karla Eisen, Chair, EAS Honey Show Advisory Committee

Plans for the Honey Show are well underway for this year's EAS 2023 Conference in Amherst, MA. We had a wonderful show last year and are ready for a bigger and better one this year. This year's Massachusetts Honey Show Conference Chairman, Christine Delaney, brings significant experience as the superintendent of one of the historically larger honey shows in the country, the Topsfield Fair. In addition, she was a judge and all-around helper-bee at the 2022 show. As a member of the EAS Honey Show Advisory Committee (EAS HSAC), she has the benefit of the group's more than 150 years collective Honey Show experience. In the past few years this committee has worked hard on codifying judging guidelines to ensure consistency from year to year and developed a working procedural guide. We even have the 2024 State Honey Show Conference Chair identified already- a familiar face and an EAS Master Beekeeper- Mr. Jim Fraser who will join the EAS HSAC. For 2023 we have a large space dedicated for the Honey Show. Eminently qualified judges for the various Honey Show are being confirmed. Commitments for sponsorship of the Honey Show awards will be forthcoming. Look for Honey show steward and volunteer spots if you want to help pull off another quality honey show.

The EAS Honey Show is for YOU! It requires a tremendous amount of work, but the benefits are immense! The Honey Show offers a great spirit of friendly competition, we can compare our efforts to those of other beekeepers, and we present our best efforts to the entire conference. The EAS Honey Show is one of the top tier shows in the country. There are awards galore, just waiting to be hung on your show entry. Consider there are award ribbons for the top 6 places in each class. Traditional plates and bowls will be awarded to top level winners in nine classes, Sweepstakes winners and Best in Show. The top winners at the EAS Honey Show can be confident to go on to compete at any show in the world. A display of a full class of entries is so beautifully impressive. Please do your part to share the good news of beekeeping and bring an entry to the Honey Show. Similar to the successful workshop last year, all stewards will be asked to participate in an orientation session.

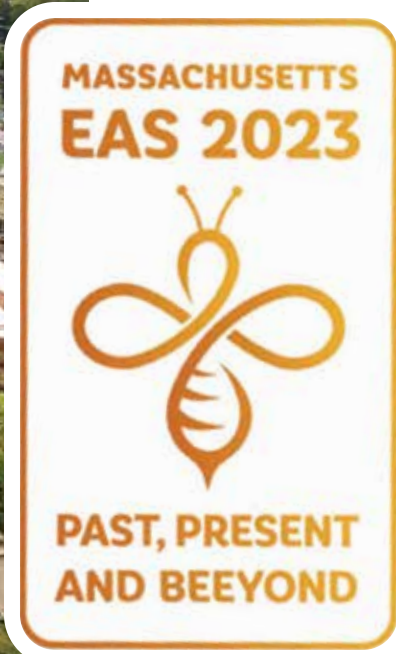
We encourage you to pay close attention to the 2023

rules which will be posted on the EAS website. We do not anticipate many new changes this year and any changes will be indicated in red. The most recent changes included the Display Frame in the Comb Honey class clarified so that only unwired wax frames of comb honey are eligible; matting required for Photography as well as new photography judging criteria; and clarifying that class B4: Candles, novelty, single or coordinated set can have no color or embellishment however these are allowed in class A3: novelty beeswax in the Arts and Crafts class. We are looking into instituting a small change for Creamed Honey containers in the 2023 rules.

Stay tuned for news on Honey Show Judge training sessions currently in development for Tuesday's short course. Honey Show entry drop off will be on Tuesday during the short course and Wednesday morning of the conference. Honey Show Tips and Tricks as well as many resources on entry preparation and judging criteria have been updated and can be found on the EAS Website.

Lastly, we thank everyone who has helped make the EAS honey show a success over the years to include the EAS Honey Show Advisory Committee members, judges, stewards, the many volunteers, and every person who entered a show. We especially want to acknowledge the service of George H. Wilson who has been a tremendous force in uplifting and formalizing the show these past several years after Michael Palmer revitalized it in 2012. George has stepped down as Co-Chair of the Advisory Committee and is almost fully retired from judging.

*Thank You, George H. Wilson, for your service
uplifting the EAS Honey Show*



UPCOMING CONFERENCE

Past, Present, and Beeyond

The theme of the EAS 2023 conference is “Past, Present, and Beeyond”. Massachusetts is rich in its beekeeping history. Reverend Lorenzo Langstroth lived a short distance (30-minute drive) from the UMASS Amherst campus in Greenfield MA. Langstroth was pastor of the Second Congregational Church from 1840 to -1858 and is known worldwide as the “Father of Modern Beekeeping”. Come walk the same Greenfield city center streets where Langstroth preached, wrote, and invented the moveable frame hive. Reverend Langstroth is scheduled to be joining us at the conference.

In addition to the outstanding classroom sessions and the conference keynote speakers, **there will be four exciting workshops** including bee photography, queen-rearing program, baking with honey, and honeybee microscopy.

The rooming accommodations are numerous. The Campus Center Hotel is located on the upper floors of the EAS conference headquarters which makes it incredibly accessible, book early to get the special EAS conference rate. Conference rates for nearby hotels and motels are being negotiated. Selected UMASS dormitories are set up in an apartment style-suite containing four separate single dorm rooms that share a kitchen setup, a living room, and two bathrooms. There are several campgrounds in the area as well.

Beekeepers like to eat and you won’t be disappointed. The UMASS Dining Services has been rated #1 in the Princeton Review for the last nine years. The many on-campus Food Courts are available to all conference attendees.

Please get your honey ready for the prestigious EAS Honey Show competition. The Honey Show committee will be offering a Tuesday afternoon workshop “How to Judge Honey”. Learn what the judges are looking for and give it a try in this hands-on workshop.

Western Massachusetts has quite a bit to offer. Amherst is home to one of the most scenic areas in the state - the Connecticut River Valley. Bring your hiking boots and tackle a portion of the North Woods New England Trail. Visit the various museums, tourist attractions, and artisan shops in the surrounding communities.

If flying, the closest airport is Bradley International Airport in the neighboring state of Connecticut, it’s only forty-five minutes away. Airport to conference transportation is available.

Mary Duane

Mary Duane
President EAS

FUN FACT: Did you know that videos from the past two conferences are available online? Visit easternapiculture.org/conference/conference-videos/ to view video presentations of the keynote speakers!



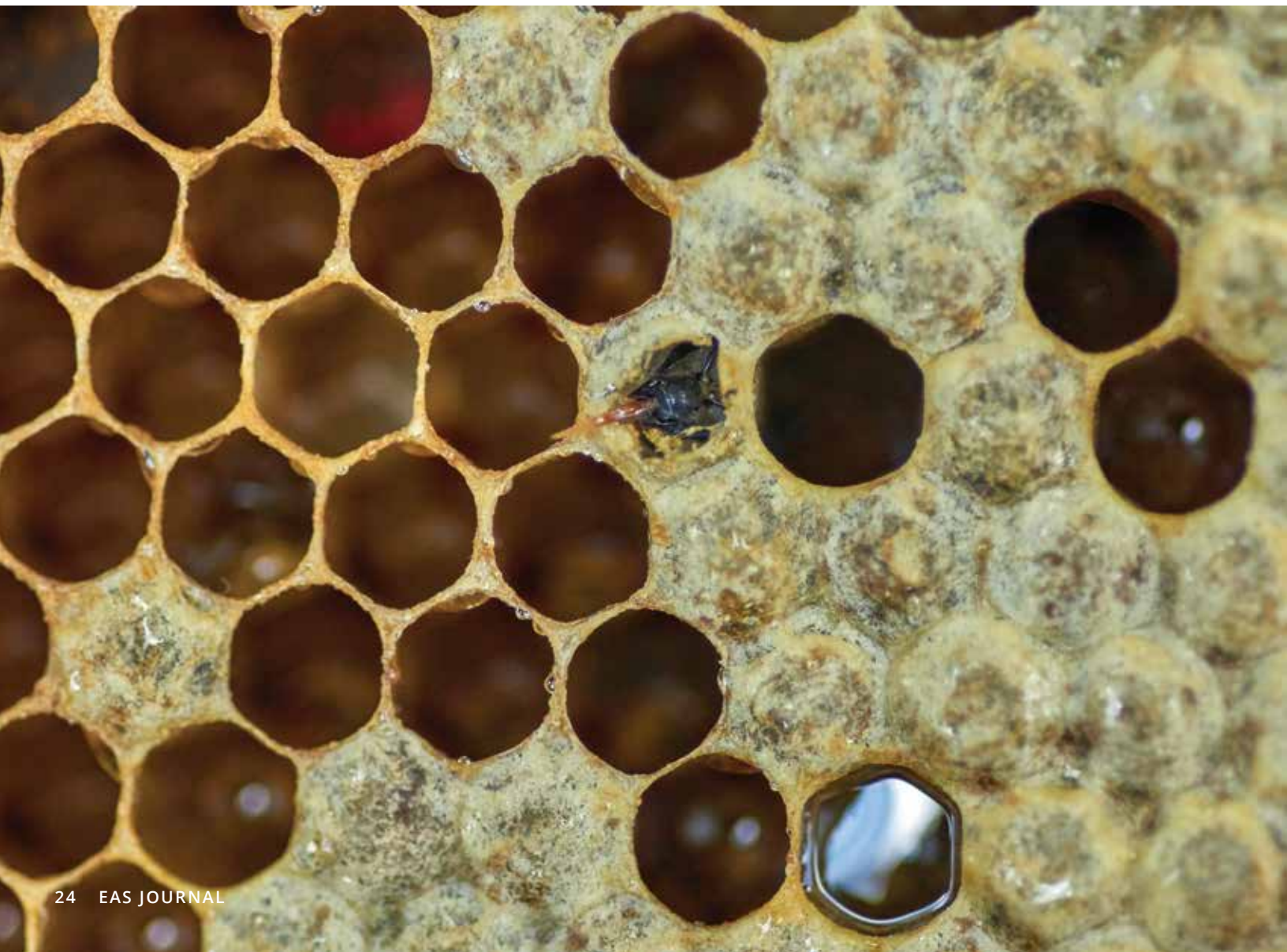
Something for Everyone

The conference has been designed to provide something for everyone and is packed with both applied beekeeping and research information. We have an outstanding roster of speakers including Dr. Samuel Ramsey, Dr. Judy Wu Smart, Dr. Kaira Wagoner, Dr. Cameron Jack, Dr. Tom Seeley, Dr. Tammy Potter-Horn, Dr. Heather Mattila, Dr. Rachael Bonoan, along with some familiar faces from on-line beekeeping education sources including Paul Kelly, Bob Binnie, and David Burns.

Topics to be covered include information on mite control, honey bee health and nutrition, bee behavior, queen rearing, apitherapy, and beekeeping in education. Dr. Samuel Ramsey will be discussing the completion of his latest research in Thailand on Varroa and his thoughts on the pending threat of Tropilite (aka Tropilaelaps). Dr. Ramsey will also be discussing

the importance of encouraging youth to understand science. Dr. Kaira Wagoner will be giving an update on her pheromone-based tool for determining honey bee colony pest and disease resistance. Paul Kelly will be providing an update on the Low Varroa Growth (LVG) breeding program at the University of Guelph Honey Bee Research Center. We will also have a Speakers Panel session which will focus on the topic of the future of beekeeping.

The Short Course will include the Beginners track sessions presented by EAS Master Beekeepers. Other sessions will focus on Intermediate and Advanced level beekeeping topics including management of laying workers, small hive beetles, helping bees to draw out foundation, inspection and data collection, and recognizing early signs of trouble in the hive and what to do.



Workshops

EAS PHOTOGRAPHY

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 vail. 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.

QUEEN REARING CLASS

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.

MICROSCOPY

The microscopy workshop will provide exposure to microscopes, bee anatomy, sample preparation, dissection protocols, and disease diagnostics. The workshop will be offered during two time blocks: 8:30am-12:45pm and 1:45pm-6:00pm, allowing for 96 students total to attend. A total of 24 students will be assigned to one of the two designated teaching lab classrooms and then switch between rooms after a two hour time block in each room. One classroom will focus on external/internal anatomy and the other on 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 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. Students will have breaks in between sessions to eat and use facilities.

The classrooms used in this workshop are equipped with a projector, screen, teaching microscopes and individual student workstations that have both a stereo and compound microscopes. Students will have access to compound and stereo microscopes, dissection kits, expired honey bees (workers, drones, queens), reference material (i.e. Nosema, AFB, EFB, Varroa mites) and instructional support (i.e. instructors and handouts). The workshops will be led by an instructor and support staff. It is expected that students will work on their own, but all are encouraged to also support each other and facilitate group learning during the workshop.

Dissection kits will be provided as part of registration and students will be able to take them home after the workshop. Honey bees will be provided for dissections, but students are encouraged to also bring their own bees for evaluation. Students who want to analyze their own bees should collect them fresh from the colony, store in the freezer and then transport chilled to the workshop.

BAKING WITH HONEY

UMass Dining Director of Bakery Operations and Executive Pastry Chef Pamela Adams will share her tips on delicious baking treats with honey. The University of Massachusetts Amherst and Chef Adams have won numerous awards for their culinary endeavors.

Day Trips

New England Apiaries LLC, will be hosting a Thursday afternoon tour 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.

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.



Conference Features

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.

HONEY SHOW

In addition to the Vendor Hall, the Honey Show will also occur in the Campus Center. We are planning a tremendous Honey Show which will test the entries of beekeepers in Extracted Honey, Comb Honey, Creamed Honey, Frame of Honey, Beeswax, Mead, Arts and Crafts, Gadgets Show, Honey Cookery, and Photography.

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.

Attractions

THE SECOND CONGREGATIONAL CHURCH

The Second Congregational Church in Greenfield, MA where Pastor Reverend Lorenzo Langstroth, known as the “Father of Modern Beekeeping” had lived and invented, published, and preached.

Langstroth’s Franklin County observations of bees led to the discovery of “bee space,” that tiny 5/16th to 6/16th inch space a bee needs to move about inside its hive. Using this information, he designed and patented his revolutionary moveable frame beehive. Also, while in Greenfield, Langstroth wrote the first manual for beekeepers -- The Hive and the Honey Bee.

The contributions Langstroth made to Apiary Science forever changed practices around the production of honey and the pollination of food crops.



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/>

UMassAmherst

GENERAL LOCATION CAMPUS MAP

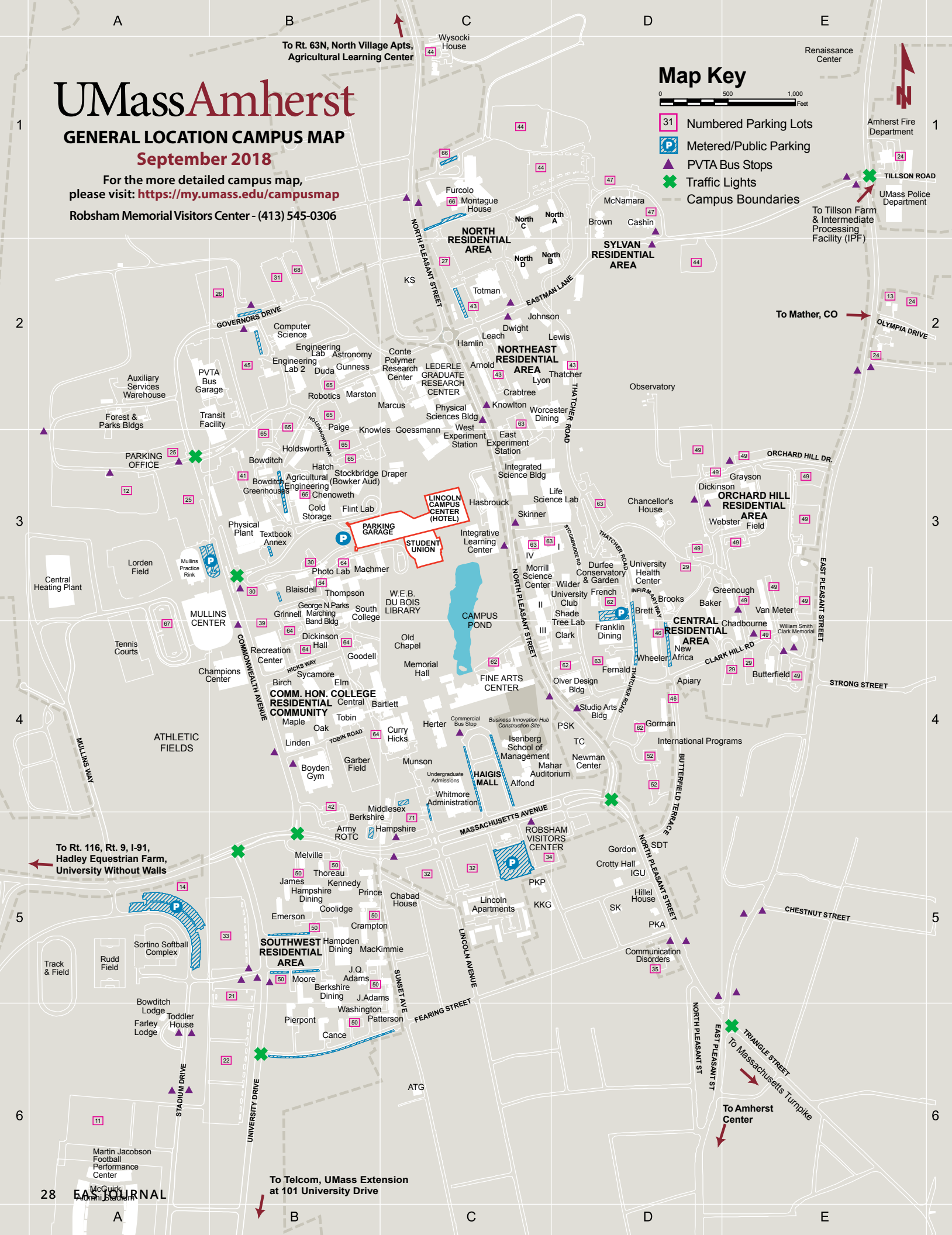
September 2018

For the more detailed campus map,
please visit: <https://my.umass.edu/campusmap>

Robsham Memorial Visitors Center - (413) 545-0306

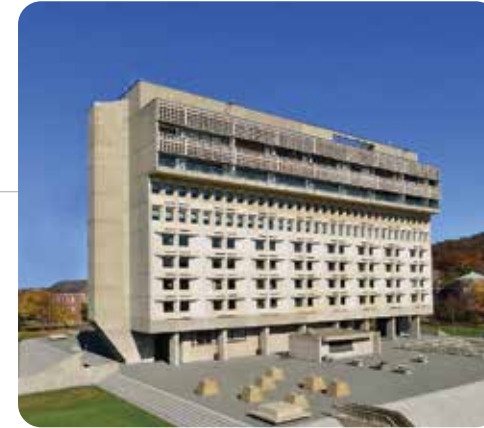
Map Key

- 31 Numbered Parking Lots
- P Metered/Public Parking
- ▲ PVTa Bus Stops
- ✕ Traffic Lights
- Campus Boundaries



Accommodations

Accommodations range from on campus hotel, area hotels and motels, to dormitory accommodations plus area camping. Food options are endless, with a highlight is on-campus dining – for the 6th year in a row, the UMass Amherst was voted #1 for Best Campus Food by The Princeton Review.



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.



UMASS DORM/SUITES

To the right are images of the UMass dorm/Suites that we will be offering attendees. Each suite has 4 single bedrooms which lock individually. The suite contains two bathrooms, one kitchen and one living room space. Dorm rooms will be \$80 and include linens.

They are located in the North Apartment complex which is a 7-minute walk from the conference center. It is a level walk with the dining hall in between.





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*
*** Last Day to make reservations for this room block is July 16, 2023*



THE HOMEWOOD SUITES

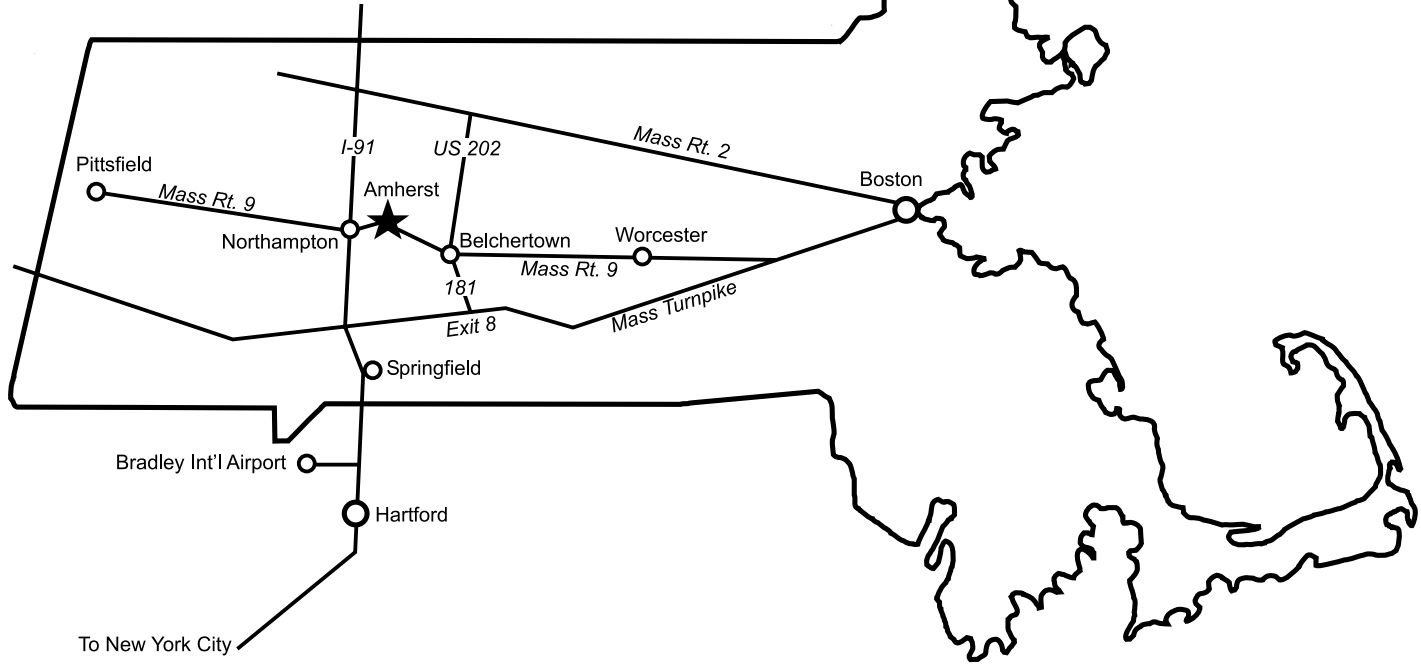
The Homewood Suites, Hadley, MA located at 340 Russel St., Hadley Ma 01035 has offered EAS a Block rate for rooms from 2023-07-30 to 2023-08-05. These are reserved under the group code of EAS and booking can be via the link or by calling Homewood Suites (413) 387-0583, request the exact hotel name listed 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*
*** Last Day to make reservations for this room block is July 16, 2023 access.*



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



Getting to Amherst ...

From the North
Route 91 South to Exit 25 - At the end of the ramp turn left and follow the road to the intersection - turn right onto routes 5 & 10 South - go 1 mile, then left onto Route 116 South, then 8 miles to UMass Exit - Left at the end of the ramp onto Massachusetts Avenue.

From the South
Route 91 North to Exit 19 (Northampton/Amherst) - Right onto Route 9 and go approximately 4.5 miles to Route 116 North (left turn at the lights), then 1 mile to UMass Exit - Right at the end of the ramp onto Massachusetts Avenue.

From the East
Mass Pike (Route 90) West to Exit 4 (West Springfield) onto Route 91 North to Exit 19 (Northampton/Amherst) - Right onto Route 9 and go approximately 4.5 miles to Route 116 North (left turn at the lights), then 1 mile to UMass Exit - Right at the end of the ramp onto Massachusetts Avenue.

From the West
Mass Pike (Route 90) East to Exit 4 (West Springfield) onto Route 91 North to Exit 19 (Northampton/Amherst) - Right onto Route 9 and go approximately 4.5 miles to Route 116 North (left turn at the lights), then 1 mile to UMass Exit - Right at the end of the ramp onto Massachusetts Avenue.

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.

Campus Center Receiving Dock Directions
(by special arrangement only)
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 - Take the next immediate right and follow the road to the first floor entrance of the Campus Center Parking Garage and the Campus Center Receiving Dock.

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.

COMMUNITY BUZZ



Pollen Identification

by Linda Mizer

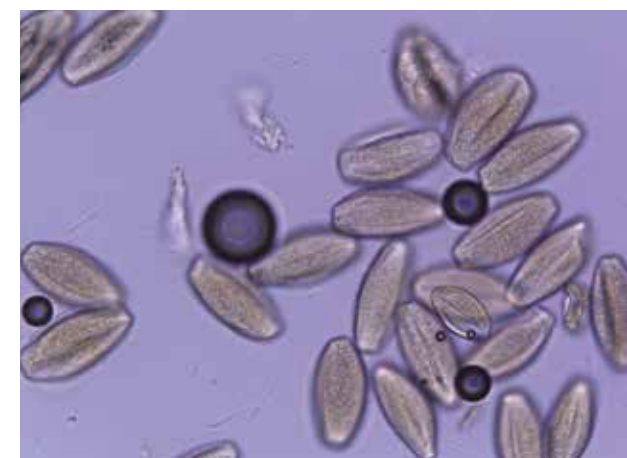
"Winter" is finding our EAS states and provinces with variable weather – from -30° F to 60° F in even the northern states. With windstorms, floods and blizzards this is certainly turning out to be unpredictable and challenging winter weather. Fortunately, a number of our colonies are surviving, self-contained, with the right degree of moisture, food and numbers to keep themselves going. All we can do is watch for signs that indicate feeding is necessary if the hives lighten in the coming months, keep the entrances clear and hope for cleansing flight temperatures.

Some of the forage that remains in bloom is included below – perhaps restricted to the more southern states,

but nevertheless present. The northern folks will have to wait for the appearance of snowdrops, crocuses, the willows and the maple trees! Spring seems like a long way off for some of us, but it always seems to find us not totally prepared for our growing bees.

DO YOU HAVE A POLLEN PICTURE?

Many thanks to all who have forwarded photographs of pollen-laden honeybees on forage. The response to my request was wonderful! Please continue to send images to lam6@cornell.edu. Remember to include the plant's common and scientific name, name of the photographer and season the forage was being visited.



POLLEN CREDIT: *Hamamelis* sp. image courtesy of Dr. Donald Coats

CAN YOU IDENTIFY THIS POLLEN?

1. *Hamamelis* sp., Witch Hazel
2. *Taraxacum*, Dandelion
3. *Hedera helix*, English Ivy
4. *Edgeworthia chrysantha*, Oriental Paperbush
5. *Elaeagnus commutata*, Silverberry

ANSWER: #1, *Hamamelis* sp., Witch Hazel. An interesting aspect of witch hazel reproduction is that the ovules in the female ovary are not fertilized immediately after the pollen is deposited on the stigma. Pollination may occur as late as November, but fertilization will not occur until the spring following pollination.

PHOTO CREDITS: 1) Suzanne Luciano, PA 2) Brooke Decker, VT 3) Jill Albano, NJ 4) Pam Fisher, SC 5) Steven Page, PA

EAS Board of Directors Minutes

SUNDAY, OCTOBER 16, 2022 AT 7:00PM

ROLL CALL OF OFFICERS AND DIRECTORS

Present: Lou Naylor, Chairman; Linda Mizer, Vice Chairman; Mary Duane, President; David Morris, Vice President; Doris Morgan, Secretary; Jacky Hildreth, Treasurer; Bob Talkiewicz, President Emeritus; Bill Hesbach, Connecticut; Kevin Platte, Washington, D.C.; Dorinda Priebe, New Hampshire; John Gaut, New Jersey; Mark Fiegl, New York; Mark Gingrich, Pennsylvania; Nancy Simpson, South Carolina; Anne Fraser, Virginia; Thomas Nolan, Ontario; Erik Brown, Tech Team Leader; Doug Galloway, Historian; Jim Gross, Life Membership; Karla Eisen, Honey Show Committee; David Priebe, Master Beekeepers; Allen Hayes, Guest; Fred Smith, Guest

Absent: Erin MacGregor Forbes, Chairman Emeritus; Marilyn Parker, Alabama; Bob Bauer, Delaware; Roger Blanco, Florida; Brutz English, Georgia; David Hocutt, Indiana; Dr. Leonard Davis, Kentucky; Janet Anker, Maine; Dr. Clyde Strang, Maryland; Carin Zinter, Massachusetts; Michael Sautter, Michigan; Burton Beasley, North Carolina; Jeannie Saum, Ohio; Cindy Holt, Rhode Island; Sam Golston, West Virginia; Julie Fontaine, Quebec; Debbie Delaney, MB Advisor; Landi Simone, MB Certification; Tammy Horn Potter, Honey Bee Health Coalition

STATES/PROVINCES IN GOOD STANDING:

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

STATES/PROVINCES WITH EXPIRED DUES:

Delaware, Georgia, Illinois (vacant), Kentucky (pending), Mississippi (vacant), Rhode Island, Tennessee (pending)(vacant), Texas, Wisconsin (vacant)

ELECTION OF NEW DIRECTOR:

Mary Duane made a motion to accept Dr. Clyde Strang as the new Director for Maryland. Anne Fraser seconded the motion. All were in favor of the motion.

SECRETARY'S REPORT: Doris Morgan

Nancy Simpson made a motion to accept the minutes from the July 31st meeting with the amendment to change the number of Master Beekeeper candidates under Landi Simone's report from 20 to 2 people cancelled. Jacky Hildreth seconded the motion. All were in favor of the motion.

Louisiana received a spam email supposedly from the EAS President. The Director of Louisiana responded back to the email not realizing it was spam. Please look out for any suspicious emails and make sure they are from who you think they are from before responding to them. You can check to see who the email is from by clicking on the little mark next to the sender's name and it will give you the email address of the person who sent the email. If the email address doesn't match the name of the person who supposedly sent the email it is spam. EAS will never ask you to send them a gift card. Because of this the Director is not running again to be the Director for Louisiana, so a new Director is needed. Karla Eisen said to contact the President of the Louisiana

State Beekeeper's Assoc. Ann Fraser also suggested we be proactive and contact the Louisiana State Assoc. to get a new Director. Doris Morgan will contact them.

TREASURER'S REPORT: Jacky Hildreth

Financials were emailed out to everyone prior to the meeting. The expenses for the EAS conference are slow coming in, right now we made at the conference about \$71,000. Our funds did not do well in the first nine months of the year so we had a loss of \$55,000. We will show a net loss of \$24,000 for the year. As long as we continue doing well with the conferences like we have the last 2 years we will be fine. Anne Fraser had a question on the Profit & Loss sheet about the breaks. Jacky stated that in prepping for his retirement from the EAS Treasurer he tried to get as specific as he could with the expenditures from the conference to make it easier for the next Treasurer. We are still looking for a replacement for Jacky when he retires. The person needs to know how to run Quickbooks and how to balance a check book. We have accountants that oversee everything and make sure you do it correctly. Dorinda had a question on the banking expenses. Jacky stated that we used WildApricot more, more people paid using a credit card so we had a lot more credit card and WildApricot fees to pay. Our professional fees are for the Accountant that reconciles our books, the Treasurer's and the Secretary's fees. Bill Hesbach asked what constituted the sales tax this year. This year because Jacky itemized everything it showed up, in the past it was all lumped up into the total bill.

CHAIRMAN'S REPORT: Lou Naylor

Massachusetts has spent 4 years planning the conference there because of COVID. There have been some new people to fill rolls that others gave up but the conference is looking good. Maryland has stepped up for 2024 and Michigan for 2025. We had a great conference this year and Lou has heard a lot of good things. She thanks Kutik's for the tour, fireworks and food, for Cornell and Linda using her contacts there to get us into the Labs and Queen Rearing, the Library and Garden tour. Lou thanks everyone for putting in their time in attending meetings and all the work they do. The work for the conferences is nonstop, as soon as one conference ends planning has already started on the next one.

PRESIDENT'S REPORT: Mary Duane

Massachusetts would like to thank Lou and all the EAS board for all the support that they have given and for the confidence and honor to host EAS. The committee is working hard and things are falling into place nicely. The dates of the conference are July 31st through August 4th, 2023 at UMASS Amherst which is in the western portion of the state. A very lovely and scenic area. The closest airport is in Connecticut, about an hour away. The Massachusetts big airport is Logan which is two hours away. There is an Amtrak station only 15 minutes away from the Campus. There is a one page flier that has been sent out to all the Directors to use. She also has a power point presentation that will be sent out to all the Directors to help promote the conference. They have 18 confirmed speakers to date. The State bee inspector will be running a microscopy course, there will be a Cooking with Honey course run by the head baker for the College. There are several trips planned, one to an Apiary, another to a flower bridge and historic Deerfield. Greenfield Mass. has bee sculptures throughout the town, the home of Langstroth. Please make sure the people in your state know about the conference.

SITE INSPECTION COMMITTEE: Lou Naylor

Maryland is still working on choosing a site. They have been looking at convention halls and colleges. As soon as they have identified a few candidates, Lou will be going there to take a look. Mary Duane nominated David Morris as the president for EAS 2024 in Maryland. Jim Gross seconded the motion. All were in favor of the

motion. Mary invited David Morris and the Maryland people to attend their meetings to see how things are done and David responded yes he would like to attend. Michigan made a bid for hosting EAS 2025 while they were at this years conference. Lou will reach out to Michael Sautter the Director for Michigan to see where they are at in the process.

COMMITTEE AND OTHER REPORTS:

WEBSITE – No report. Lou stated that they are having a tech meeting next week when Erik gets back from traveling and are looking to update the website and put up on the website the keynote speaker’s presentations from this year’s conference. Erik is also exploring what features WildApricot offers that we have not yet taken advantage of.

WILD APRICOT – No report

MEMBERSHIP COMMITTEE – No report

AWARDS:

- Hambleton Award** – Award nomination letters to go out in November
- Roger A. Morse Award** – Award nomination letters to go out in November
- Student Award** – Award nomination letters to go out in November
- Honey Bee Research Award** – Grant solicitation letters to go out in November
- Divelbiss** – Award nomination letters to go out in January

Linda Mizer mentioned that the nomination letters were put into the upcoming Journal.

FINANCE – Jacky Hildreth
No report at this time.

HISTORICAL COMMITTEE – Doug Galloway

The Historical Committee and Historian have completed the process of organizing, digitizing, and creating access to EAS Historical Records dating from 1955. The records are stored on a flash drive which will be distributed to the Chairman, a copy retained by the Historian, and/or as directed by the BOD. Ongoing/new records will be digitized and/or upgraded to an appropriate pdf format then added to the digitized Historical Records by the Historian on a periodic basis. It is important that Board members and the general membership forward records/documents/photos, etc. to the Historian, so an accurate and complete record of our Society’s activities, membership and philanthropic efforts can be recorded. Member access to EAS Historical Records has been an integral part of the Historical Committees objective in collecting and digitizing this information. All records received by the Historian are now available to view on Box.com. To access the files go to <https://account.box.com/login> . The log in name to use is historicaleas@gmail.com and the password is start1955. With BOD approval, an article will be prepared for the next EAS Journal, to share this information with membership. The information is read only and cannot be edited except by the editor which is Doug. Lou would like to see if a link can be made from WildApricot to the files at the upcoming tech meeting. She invited Doug to the meeting. Lou Naylor asked if the information is read only, Doug stated yes. Anne Fraser asked if there is any concern that someone could exploit the documents for commercial purposed. Do we need a

disclaimer? Doug did not feel that this was necessary but he will bring it up at the Tech meeting. The bill for digitizing everything came to \$1357.66 which includes the first year of using Box.com. Linda thanked Doug and his committee for all their hard work in getting this done. David Morris asked if more than one person could be on the site at the same time, Doug said yes.

HONEY BEE HEALTH COALITION – Tammy Horn Potter

Tammy sent in a brief report: the HBRC released an updated and revised version of its popular Tools for Varroa Mite Management. The press release is included in the 2022 Fall EAS Journal. There will be an in-person meeting in Denver, January 18, 2023. It is a strategic meeting to discuss new initiatives.

HONEY SHOW ADVISORY COMMITTEE – Karla Eisen

The 2022 Honey show went very well and was received well by everyone at the conference. Karla is especially pleased with the amount of artwork that was entered. For the first time they had a Honey Show Stewards orientation which was also well received and many people came to it, even people who were not volunteers. She thinks for the 2023 conference that they will do the Steward orientation via zoom before the conference to save time. The committee has not met since the conference because of illness. She thanked Mark Fiegl for the great job he did as the state chairman of the Honey Show. She looks forward to Maryland and wanted to know if they have a Honey Show Chair for 2024. Chris Delaney from Mass. 2023 has already been on the committee. They will probably start meeting again in January. David Morris stated that Jim Fraser just signed up for the Honey Show Chair for Maryland. Lou asked Karla to look at the web site and see if any adjustments need to be made to the Honey Show information. Karla said yes, she would. Lou said someone yesterday asked her about access to the entry form. Karla stated that the form has never been on the website except for once. She will talk to the committee about putting it up on the website. Linda Mizer said that once they know what they want changed on the web site to contact the Tech team. Karla anticipates the 2023 Honey Show to be a big one.

JOURNAL – Linda Mizer

We continue to issue 3 Journals a year plus the Conference Program. She looked at the prices and sizes of the Journals this year. The Winter and Fall ones can be published for less than \$10.00. The Spring one because it has a lot of information about the upcoming conference is much bigger. This year it ran \$13.70. Her concern is that the current price we charge for a printed copy of the Journal is not adequate to cover those costs. She would like to suggest that we increase the cost of the printed Journals to \$30.00. If any of the Directors have information about their local groups it is better for them to contact the Tech team to have it put up on the web site because by time the Journal is printed the event has already happened. The same with obituaries. She thinks it would be good to have a decision made as to where the obituaries should go, whether to the Historical Society, the Web Site? But we need someone to be a collector of all that information who will then forward it on to the appropriate person. Karla stated that she and Doug talked about that and they both decided that a process needs to be put in place as to what to do. Maybe Doug and her can come up with a process and then propose it.

LIFE MEMBERSHIP – Jim Gross

Jim has nothing new on Life Membership, he doesn’t have a report telling him how many new members there are. Jacky asked if Jim has access to WildApricot. The answer was no. Erik Brown stated that there has been 4 new Life Members since August 1st. There has been 50 new members since August 1st. Total Life Members is 683.

MANN LAKE EAS SCHOLARSHIP – Master Beekeepers

Nothing to report

MASTER BEEKEEPERS – Dave Priebe

The first problem he faced was how do we (the Master Beekeepers) communicate. He checked with Erik Smith and Ann Zudekoff and they felt email would be the best way to communicate. Short term solution he established a Google group that is up and running right now but a longer term solution with keeping email addresses up to date would be the WildApricot database. Eric Smith is working with Erik Brown on improvements to the WildApricot database. He thinks what they are trying to come up with is a way that the users could update their own information to keep their information up to date. Lou stated that if the Master Beekeepers are not current members of EAS they need to be in the contacts portion of WildApricot. She asked Dave to encourage the Master Beekeepers he wants to keep in contact with to be current members of EAS. Dave agreed. Lou asked Doris Morgan to send Dave the privacy statement for WildApricot giving him access.

MASTER BEEKEEPER CERTIFICATION – Landi Simone

No report

UNFINISHED BUSINESS:

Constitution and By-Laws redundancies – John Gaut

Nothing much to report on the redundancies at this time. Lou just sent out a notice about a meeting and they will talk about the next steps needed. Anne Fraser stated that Doug Galloway perused the EAS documents looking for any relevant information and did come up with a few things that furthered the analysis. Thank you Doug. Progress is happening and they need to have a discussion on which path is the best one they take from here.

NEW BUSINESS:

Dorinda Priebe asked who the auction committee is. Lou stated that Meghan McConnell did it this year, she doesn't know if Meghan is going to continue doing it. She may do the online portion of it but Mary is putting a group together. They have someone to do the Daily (Silent) auction, they are looking for an auctioneer for the Live Auction and they are planning on asking Meghan if she would do the Virtual Auction. Mary told Dorinda that if she would like to help with the auction, they would love some help. What Dorinda really wanted to know was, where did the items go that weren't auctioned off like the book collection. Jacky stated that he thinks Meghan has he leftover books but that most of them were already auctioned off. Dorinda stated that the books went out without bookplates in them saying where they came from. Linda stated that the bookplates will be available next year. Doug stated that Meghan did send five boxes home with Doug Galloway, he is not sure what is in the boxes.

ADJOURNMENT

Jacky made a motion to adjourn. Bob Talkiewicz seconded the motion.

Minutes respectfully submitted by Doris Morgan, EAS Secretary



EAS Executive Committee, Directors, and Contacts

EAS EXECUTIVE COMMITTEE

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Membership Chair

Questions about renewing your membership ? Please contact Robert Bauer.
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Year indicates expiration of term as director

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