

WAS Journal



Journal of the Western Apicultural Society of North America

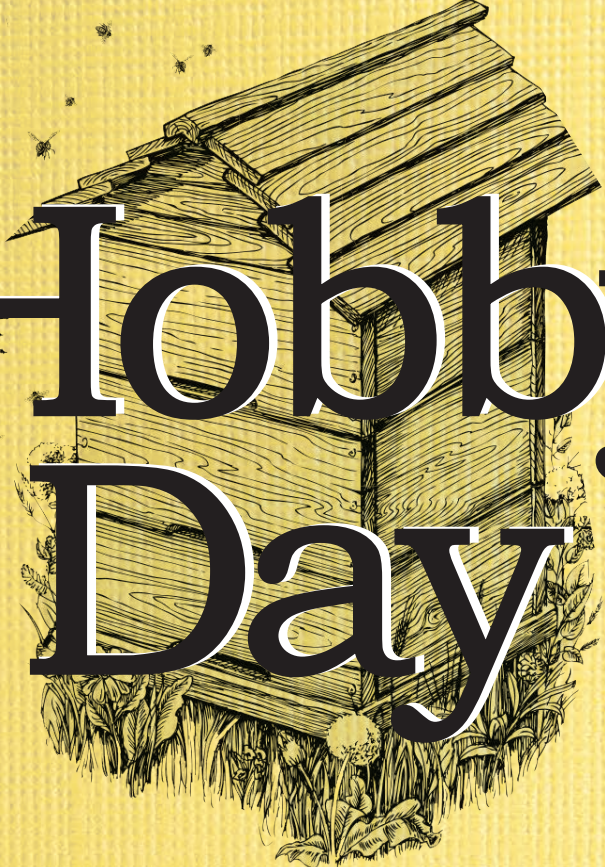
Volume 42 Number 1

February 2019



2019 WAS Conference | Ground Cover for Beneficial Insects | WAS Fiscal Review
State of WAS Bees | Randy Oliver Takeaway | Eliza Jane Donovan | HBHC Report

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WAS Journal

Journal of the Western Apicultural Society of North America

Volume 42 Number 1

February 2019

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President's Message

January 20, 2019

Western beekeepers, I hope your winter has been warm and cozy. Have you made it to any good beekeeper meetings? Have you gotten lost in a beekeeping book? Are you up to date on the latest *American Bee Journal* and *Bee Culture* issues? Have you been pouring over seed catalogs, hot toddy in hand (made with your own honey, of course)? I, too, have been doing my best to keep up with the latest and greatest ideas, projects, and research while my bees are tucked away in their hives. My goal is to make WAS 2019 a conference that you will remember for many years to come.

We've been working hard to line up some of the best, brightest, and most inspirational speakers, to come up with some new and creative ways to connect old and new friends, and to make sure that you get a peek at the latest hive styles, projects, and gadgets at the vendor show and community waggle dance.

Giving the opening keynote will be Katrina Klett, CEO and co-founder of the Elevated Honey Company. Katrina Klett is a lifelong beekeeper from a migratory beekeeping family in North Dakota. She was raised breeding queen bees in Texas, producing honey in North Dakota, and pollinating almonds in California. As she was born in 1987, she has only known a US beekeeping industry on the brink with the ever-present Varroa mite. Katrina has worked on commercial crews in New Zealand and Australia. She has worked in research labs at the University of Minnesota, USDA ARS Beltsville, Maryland, the Chinese Academy of Agricultural Science in Beijing, and she is currently finishing a master's degree in chemical ecology at the Chinese Academy of Science, Xishuangbanna Tropical Botanical Garden. As an adult, she has worked in many different countries using honey bees as a development tool for rural communities looking for a sustainable way to increase their income levels. She has a social enterprise in China that helps mountain communities use the indigenous honey bee *Apis cerana* to produce honey. Her company focuses on supply chain upgrades to help protect the integrity of their product and elevate consumer safety in the Chinese honey market. Connect with her on Facebook, Instagram, and Twitter @elevatedhoneyco and learn more at www.elevatedhoneyco.com.

The amount of requests that I get from other beekeepers wanting to know how I manage my web presence is dizzying, so we're bringing in PR and marketing guru, Robin Jones, of Honey Girl Grows. In her



workshop, you will find out more about the extraordinary and inspirational ways Robin is serving the beekeeping industry, and also learn her methods to grow your social media and online presence to fundraise, sell honey, find new strategic partners, whatever your heart desires!! Robin comes from a family of farmers, nursery owners, and beekeepers. (Her family owns Whitefish Stage organic farms in Montana.) Robin learned to keep bees as a way of connecting to her great granny, but failed quickly and turned to science with the help of Randy Oliver's mentoring. Robin's company designs and tends permaculture systems and organic culinary gardens, pollinator gardens, apiaries, and bee experiences for restaurants, chefs, and residential and corporate clients in Los Angeles, Orange County, and San Diego, including the Ojai Valley Inn and Spa, Cal Polytechnic University, Red Bull, and others. No-profit projects include an apiary and pollinator garden at Camp Pendleton, where Robin is training US military to save swarms and hives. Connect with her: Instagram and Facebook @HoneyGirlGrows #HoneyGirlGrows.

Not only will the main conference be a stellar experience, we have some stellar plans in the works to bookend the conference. Ashland, Oregon, and the Rogue Valley attract hundreds of thousands of visitors annually. The conference venue, The Ashland Hills Hotel & Suites and Conference Center, is located at the base of the Siskiyou Mountains, 12 miles north of the border with California, off I-5. They're a short drive to downtown Ashland, and they offer easy access to all the attractions of Southern Oregon, including wine country, the world-renowned Oregon Shakespeare Festival, world-class dining, quick access to the great outdoors with the mountain lakes, the Siskiyou bike path, Mount Ashland

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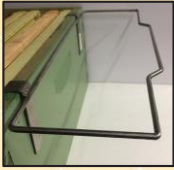


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resort, and Emigrant Lake and its water slide just minutes away. And, of course, the Rogue River.

We are organizing a half-day Rogue River “Nugget run” with Momentum River Expeditions. The Nugget run of the Rogue is a great trip for those wanting a fun float with a few bigger rapids. We may see blue herons, golden eagles, and probably a fisherman or two. The Rogue is a wonderful taste of whitewater excitement and is great for the intrepid first timer, families, and those on a short time schedule. We have blocked off Thursday, July 11, with Momentum to fill a trip solely with WAS beekeepers! Not to fret, we will be back in plenty of time for you to catch a show at the Oregon Shakespeare Festival, and WAS attendees will receive a 10 percent off coupon with conference registration.

On Sunday, the 14th, you can look forward to a few options to truly experience the area. You will have your choice of a hands-on bumble bee research workshop on Mount Ashland with Dr. Jamie Strange and his team from the Logan USDA-ARS-Pollinating Insects Research Unit, or tour my bee habitat research projects and other farms on the valley floor. We’ll finish up the day with wine tasting and a bee-friendly vineyard tour. Details are still in the works, but you can look forward to an unforgettable day of bees, flowers, innovation, and inspiration! Consider this my personal invitation to you to visit Ashland and join us for the WAS conference, July 12–14. It’s sure to “bee” an unforgettable time! More details and registration (opening in mid-February) at westernapiculturalsociety.org.

Yours truly,



Note: Updates beyond Sarah’s message and other information in this issue will include online registration and a form for registration by mail. They will be posted at www.westernapiculturalsociety.org as they become available.

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PRECONFERENCE ADVENTURES

Rogue River Rafting

The Western Apicultural Society Trip will begin with a 9 AM pick-up at Ashland Hills and return at 2 PM. Cost is \$75 with lunch included.

Trip information: www.momentumriverexpeditions.com/trip/rogue-river-half-day

To sign up online: yourtrip.momentumriverexpeditions.com/reserve/res9023-western-apicultural-soc

To sign up by phone: Call 541.488.2525 and ask to join the **Western Apicultural Society** group.

Oregon Shakespeare Festival

2019 WAS Conference attendees receive a 10 percent discount on selected performances at the Oregon Shakespeare Festival on July 11 and 12, 2019.

July 11, 8:00 PM

Alice In Wonderland – Allen Elizabethan Theatre

As You Like It – Angus Bowmer Theatre

July 12, 8:00 PM

All’s Well – Allen Elizabethan Theatre

Indecent – Angus Bowmer Theatre

The Promo Code will be sent on registration for the conference.

Information about the Oregon Shakespeare Festival and current performances: www.osfashland.org

To purchase tickets: www.osfashland.org

Please note that ticket sale(s) are final, with no refunds or exchanges.



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2019 WAS Conference Presenters

July 12–14, 2019 | Ashland, Oregon

The 2019 Western Apicultural Society Conference theme is “Hive Mind for the Greater Good,” built on the values of persistence and authenticity and celebrating community, women in leadership, and, of course, bees and their keepers. This weekend will be a mix of dynamic keynote talks, workshops built on the themes of art, beekeeping, social media and marketing, bee habitat conservation, education, native bees, and global research. Learn with some of the brightest stars in the bee world! Industry leaders you will learn from and interact with at WAS, in addition to those who are noted here, include Dr. Judy Wu-Smart, University of Nebraska-Lincoln | Sarah Red-Laird, Bee Girl | Krista Holland, Yoga & Living Arts | Kathryn Prince, The Xerces Society | Dr. Marla Spivak, University of Minnesota (streamed opening welcome) | and more. Among the talent that you will meet at WAS 2019 are:

Katrina Klett, Elevated Honey Company

Topic: Our Global Beekeeping Community

Connect with her: Facebook, Instagram, and Twitter
@elevatedhoneyco; www.elevatedhoneyco.com



Katrina Klett is a lifelong beekeeper from a migratory beekeeping family in North Dakota. She was raised breeding queen bees in Texas, produc-

ing honey in North Dakota, and pollinating almonds in California. As she was born in 1987, she has only known a US beekeeping industry on the brink with the ever-present Varroa mite. Katrina has worked on commercial crews in New Zealand and Australia. She has worked in research labs at the University of Minnesota, USDA ARS Beltsville, Maryland, the Chinese Academy of Agricultural Science in Beijing, and she is currently finishing a master's degree in chemical ecology at the Chinese Academy of Science, Xishuangbanna Tropical Botanical Garden. As an adult, she has worked in many different countries using honey bees as a development

tool for rural communities looking for a sustainable way to increase their income levels. She has a social enterprise in China that helps mountain communities use the indigenous honey bee *Apis cerana* to produce honey. Her company focuses on supply chain upgrades to help protect the integrity of their product and elevate consumer safety in the Chinese honey market.

Meghan Milbrath, Michigan State University & Sand Hill Bees

Topics: Toward Treatment Free Beekeeping & Advanced Requeening and Split-Making Workshop

Connect with her: www.sandhillbees.com/pollinators.msu.edu



Dr. Meghan Milbrath began working bees with her father as a child over 20 years ago, and now owns and manages The Sand Hill Apiary, a small livestock and queen-rearing operation in Munith, Michigan. She studied biology at St. Olaf College in Northfield, Minnesota, and received degrees in public health from Tulane University and the University of

Michigan, where she focused on environmental health sciences and disease transmission risk. Meghan worked as a postdoctoral research associate under Zachary Huang at Michigan State University studying Nosema disease and is currently an academic specialist at MSU, where she does honey bee and pollinator research and extension and is the coordinator of the Michigan Pollinator Initiative. Meghan is active in multiple beekeeping organizations, writes for multiple beekeeping journals, and speaks about bees all over the country. She currently runs the Northern Bee Network, a directory and resource site dedicated to supporting queen producers, and she is passionate about keeping and promoting healthy bees.

Anna Gieselman, Bee Amour Jewelry

Topic: The Art of Bees

Connect with her: Facebook @BeeAmour, Instagram @LoveBeeAmour, www.beeamour.com

Austin, Texas, native Anna Gieselman is an artisan, designer, and urban beekeeper, whose work draws inspiration from the fragile, magical nature of honey bees. Through



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techniques such as lost-wax casting of honeycomb, she creates one-of-a-kind functional jewelry and fine art objects that incorporate the seemingly ephemeral material of honey bees and their hives. Anna's work aims to draw attention to the untold power of honey bees and the unconsidered importance they play in our lives and the sustainability of the planet. She has presented her works in art fairs and festivals throughout Texas and the US.

Hilary Kearney, Girl Next Door Honey

Topic: Broadcasting Your Beeswax, The Business of Storytelling

Connect with her: Instagram @girlnextdoorhoney, Twitter @GNDhoney, girlnextdoorhoney.com, beekeepinglikeagirl.com.



Hilary Kearney is the creator of Girl Next Door Honey, a beekeeping business that offers educational opportunities to hundreds of new beekeepers each year. She is also the author of the book *Queenspotting* and the blog *Beekeeping Like A Girl*. Her writing on bees has appeared in *Modern Farmer* and *GRIT*.

Hilary's beekeeping exploits and unique business model have inspired people all around the world. Her work has been the subject of features in *Huffington Post*, *Vogue*, *Mother Earth News*, and other outlets. She rescues wild bee colonies, teaches classes, and manages around 60 hives in her hometown of San Diego, California.

Robin Jones, Honey Girl Grows

Topic: Marketing and Communications for Your Bee Business

Connect with her: Instagram and Facebook @HoneyGirlGrows #HoneyGirlGrows

Robin comes from a family of farmers, nursery owners, and beekeepers. (Her family owns Whitefish Stage organic farms in Montana.) Robin learned to keep bees as a way of connecting to her great granny, but failed quickly and turned to science with the help of Randy Oliver's mentoring. Robin's company, Honey Girl Grows, designs and tends permaculture systems and organic culinary gardens, pollinator gardens, apiaries, and bee experiences for restaurants, chefs, and residential and corporate clients in Los Angeles, Orange County, and San Diego, including the Ojai Valley Inn and Spa, Cal Polytechnic University, Red Bull, and others. No-profit projects include an apiary and pollinator garden

at Camp Pendleton, where Robin is training US military to save swarms and hives.

Jamie Strange, USDA-ARS-Pollinating Insects Research Unit

Topic: Introduction to Bumble Bee Diversity

Connect with his lab: www.ars.usda.gov/pacific-west-area/logan-ut/pollinating-insect-biology-management-systematics-research/

My research interests include basic aspects of bumble bee (*Bombus*) biology and practical aspects of bumble bee culture for pollination. In my lab, we raise several species of bumble bees for various projects related to bumble bee biology and management. Currently we are rearing colonies from wild-caught and overwintered queen bumble bees from several western US species.

The Hunt Bumble Bee, *Bombus huntii*, has been reared as a species of interest for domestication and use in greenhouse pollination. We currently have projects ongoing that are investigating winter mortality, nest initiation, summer foraging range and nesting density, and pathology related to this species.

Investigations of the reproductive biology and the physiology of the Vosnesensky Bumble Bee and the adaptations of this species to the highly variable climate of the American West are ongoing. Studies of comparative physiology and evolution of the Vosnesensky Bumble Bee with the Two-Formed Bumble Bee are also underway. We work cooperatively on multiple projects with these two species with collaborators at University of Wyoming, University of Alabama, Penn State University, and Harvard University to better understand these species and the way they interact with their environment.

The Bombus Lab has a strong conservation component that primarily focuses on *B. occidentalis*, the Western bumble bee. My lab is cooperatively working with researchers at the University of Illinois and Illinois State University to investigate the synergistic impacts of pesticides and pathogens on bumble bee health. I work with researchers at Utah State University and the University of Hawaii to understand how population genetics of bumble bee species impacts species health and resilience in changing environments. Integral to this is understanding the impacts of pathogens and pesticides on pollinator populations.

Work in the lab has heavily focused on identifying the diverse suite of pathogens and parasites that impact bumble bee populations through conducting a national survey of bumble bees and development of low-cost molecular detection tools.



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Molly Romero, Active Acupuncture of Ashland

Topic: Health Through Honey Bees

Connect with her: Facebook @ActiveAcupuncture, www.activeacupunctureofashland.com

Owner of Active Acupuncture of Ashland, a clinic specializing in sports medicine and family wellness, Molly is dedicated to keeping as many people doing what they love through holistic health care. As a third-generation beekeeper, Molly has a deep appreciation for the wonders of beekeeping, hive products, and education surrounding these elements. She was co-founder of Portland Urban Beekeepers and conducted an over-6,000-mile motorcycle tour called *Molly Bee Good* to disseminate information concerning honey bee contribution to human health and introduce the next generation to the magic of beekeeping. Molly was first introduced to apitherapy through her studies with villagers surrounding Tanzania's Amani Nature Reserve. Enlightened by the guidance of local beekeepers and medicine workers, she returned to the US to study a holistic approach to medicine and obtained her MS in Oriental Medicine. Propolis, honey, wax, pollen, royal jelly, and the bees themselves can all be used to have a healthier life. Molly is thrilled to be able to share the many elements of health hives can provide for us and our community.

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2019 WAS Conference Schedule

July 12–14, 2019 | Ashland, Oregon

As our bees are tucked into their hives, sheltered from the rains that pound the West Coast in early January, we can get excited about flowers blooming and sun shining because winter solstice is behind us, the days are getting longer, and WAS will be here before we know it! Worker bees here in Ashland, Oregon, are working away to bring you a great conference. Come a day early and join us for some local adventures, or arrive on Friday afternoon and jump right into the conference. Being a few months out, the details are subject to change, but we wanted to give you a good first look as to what you can expect. In an effort to keep WAS an intimate gathering, one of the qualities our attendees love most, we'll cap the registration at about 300, so get your ticket early and join the fun! Register online, or find, download, and mail in the registration form at westernapiculturalsociety.org starting in February.

Conference Venue
Ashland Hills Hotel & Suites
and Convention Center
2525 Ashland Street
Ashland, Oregon 97520

Thursday, July 11 (Preconference)

Morning and Afternoon

Attendees of the WAS conference have the option to go on a half-day Rouge River Rafting adventure with Momentum River Expeditions. Cost is \$75 for a few hours of rafting with your fellow beekeepers and a riverside farm-to-table lunch. See westernapiculturalsociety.org [and page 9] for additional details.

Evening

Enjoy dinner at one of our local breweries, downtown, in the railroad district, or anywhere your heart desires. There is a plethora of dining options in Ashland.

Night

Conference attendees are welcome to take in a show at the Oregon Shakespeare Festival and are treated to a 10 percent off discount, available to you once you register for WAS. Choices tonight are *Alice in Wonderland* in the Allen Elizabethan Theatre or *As You Like It* in the Angus Bowmer Theatre.

Friday, July 12

Morning

Enjoy breakfast at your hotel*, join "Bee Yoga" with Krista Holland at 7:30 AM, then check out the multitude of activities in Southern Oregon: Lithia Park, Downtown Ashland, North Mountain Park, ScienceWorks Hands-On Museum, Schneider Museum of Art, golfing, miles of world class hiking, biking, and running trails, or get up early and make a dash to Crater Lake National Park, or do some world-class birding in the Upper Klamath National Wildlife Refuge.

11:00 AM Registration Opens

Afternoon

1:00 PM The 2019 WAS Conference begins with a Welcome from WAS President Sarah Red-Laird

1:30 PM Streamed Opening presented by Dr. Marla Spivak, University of Minnesota

1:45 PM Keynote: Katrina Klett, Elevated Honey Company

2:30 PM Break: During our break times, meet up with other beekeepers who share your same interests and passions at the special interest themed "hive towers," spread throughout the Vendor Show. The hives are the place to meet your new best friend who's also into beginning beekeeping, honey production, co-ops and supply chain management, bee habitat, native bees, bee-themed travel and service opportunities, and so forth.

3:00 PM Keynote: Hilary Kearney, Girl Nextdoor Honey

4:30 PM Break

5:00 PM Happbee Hour: Join us on the breezy outdoor patio downstairs for drinks and finding old friends, or meeting new ones. There will be a grand spread of hors d'oeuvres**, and your first beer or wine is on us!

Evening

6:00 PM #beekeeperfail Storytelling Hour: C'mon, you know we all have them! Instead of starting the conversation with how many hives you have or how great your bees are all doing (really?!), let's share in the comedy that is beekeeping. Remember that one time you made your dad move hives with you at 1:00 AM, that one time you watched a whole box of bees roll down a hill, or how your best friend got stung 50 times in the leg because you forgot to make sure he pegged his pants when you were unloading bees at night?! This is a time to get it all out and forewarn others in

the good company of friendly beekeepers.

7:00 PM Shuttles (fee) start to Downtown Ashland for dinner. If you would like to catch a show at the Oregon Shakespeare Festival, use your 10 percent off coupon code for *All's Well* in the Allen Elizabethan Theatre or *Indecent* at the Angus Bowmer Theatre, both beginning at 8:00 PM.

Saturday, July 13

Morning

Enjoy breakfast at your hotel*

6:00 AM “Bee Yoga” with Krista Holland

9:00 AM Keynote: Dr. Meghan Milbrath, Michigan State University/Sand Hill Bees

10:00 AM Break

10:15 AM Roundtable Speaker “Speed Dating”: This is your chance to sit down with some of the brightest stars in the beekeeping world and ask them anything. The keynote presenters and workshop leaders from WAS will each host a table. You are invited to sit with the speaker in a small group, introduce yourself, and ask them any questions you have: “What is the secret to keeping bees alive?” “What is the best mite-borne illness treatment and prevention method” “How do you get 20K social media followers?” “How much should I charge for honey?” “How can I turn my ‘dispatched’ queen bees into art?” “What is the best thing I can plant for bees?” We will sound The Flight of the Bumble Bee every 20 minutes to signal you to move to the next expert.

11:45 AM Break

Afternoon

12:00 PM Lunch** and Keynote: Dr. Judy Wu-Smart, University of Nebraska-Lincoln

1:30 PM Break

1:45–5:00 PM On-site workshops. We are still finalizing the schedule, but you can look forward to: Anna Gieselman, Bee Amour Jewelry, Topic: The Art of Bees; Robin Jones, Honey Girl Grows, Topic: Marketing and Communications for Your Bee Business; Molly Romero, Active Acupuncture of Ashland, Topic: Health Through Honey Bees; Katrina Klett, Elevated Honey Company, Topic: Global Beekeeping Research and Education; Kathryn Prince, The Xerces Society, Topic: Native Bees and Their Habitat; and more!

1:45–5:00 PM Beginning and Advanced Beekeeping Workshops*** with Dr. Judy Wu-Smart and Dr. Meghan Milbrath at the Bee Girl Center for Education and Research.

Evening

5:00 PM Happbee Hour and “Community Waggle Dance Tabletop Show.” Join us for some seriously fancy hors d’oeuvres** and check out your fellow beekeepers’ ideas, inventions, and projects. We’ll spread out from the Vendor Show to the Stardust Lounge to debrief the day, meet up with friends, check out the vendors, and visit selected doers and thinkers who will have a bistro-table-sized display showcasing their passions.

7:00 PM Banquet: Come as you are, or dress to the nines, however you are most comfortable. This is the time to reflect, enjoy each other’s good company, and recognize a small handful of beekeepers for their service to our industry. All while enjoying a stellar meal.**

Sunday, July 14

Morning

Enjoy breakfast at your hotel*

6:00 AM “Bee Yoga” with Krista Holland

8:00 AM WAS Business Meeting

9:00 AM Keynote: Sarah Red-Laird, the Bee Girl Organization and The Western Apicultural Society, and Katrina Klett, Elevated Honey Company

10:00 AM Participate in the Rouge Valley Farm Tour and come check out the Bee Girl Organization’s Bee Habitat Research and Education Habitat Projects at the Farm at Southern Oregon University and The Bee Girl Center for Education and Research.

10:00 AM Participate in Native Bee Research in a hands-on workshop*** with Jamie Strange and the USDA Logan Bee Lab team at Mount Ashland (shuttle and brown bag lunch included).

You could partake in the Mount Ashland workshop and catch the tail end of the farm tour, if you are feeling ambitious.

Afternoon

4:00 PM Irvine & Roberts Winery: Wine Tasting and Bee Friendly Vineyard Tour***

Evening

6:00 PM Enjoy dinner on your own in Ashland or bee-yond

*If you are staying at the Ashland Hills Hotel & Suites, a delicious complimentary breakfast will be available to you.

**Farm-to-table nourishment is included with registration.

***These workshops and the tour have limited availability and an extra registration fee.

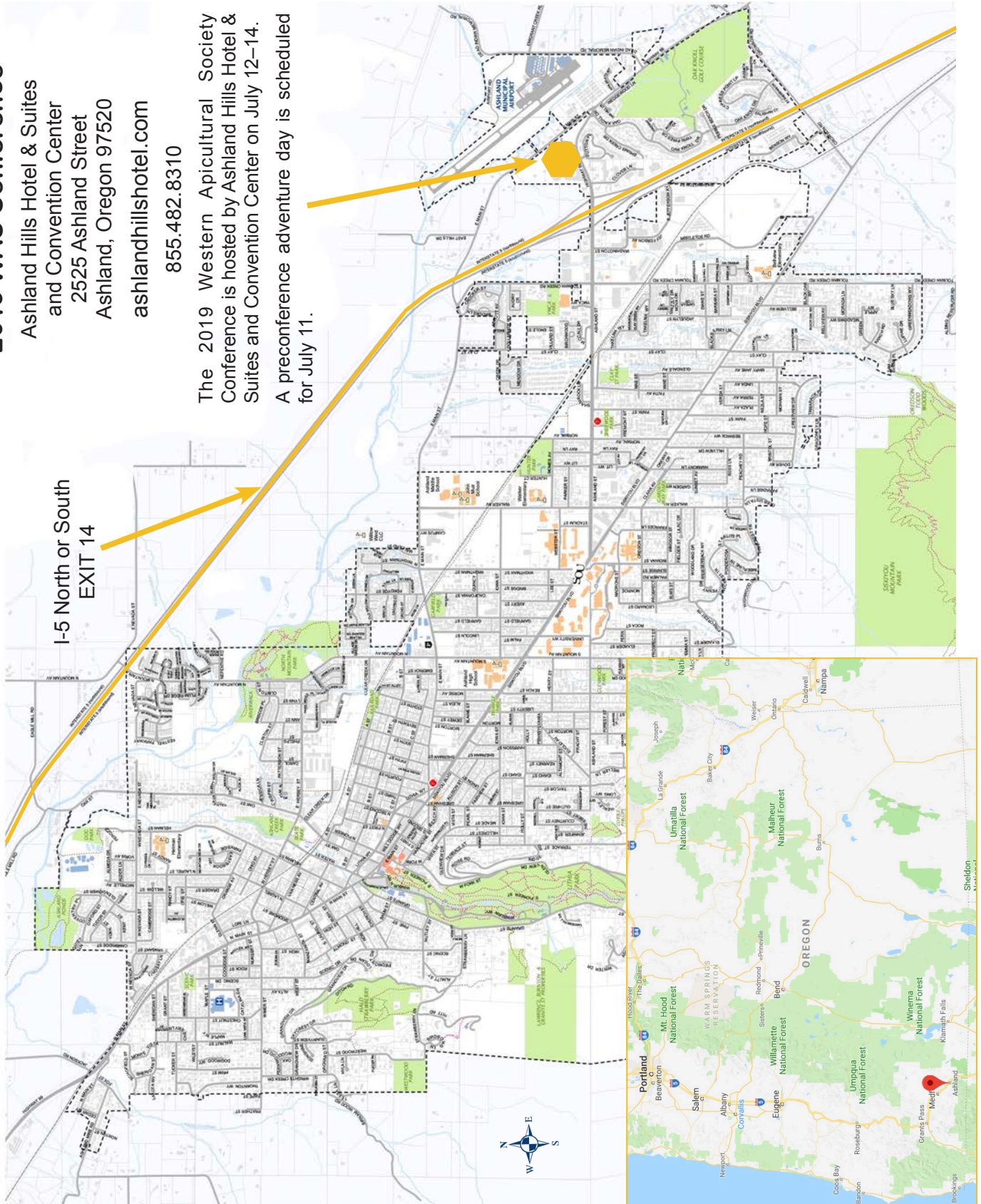
2019 WAS Conference Location | Lodging

July 12–14, 2019 | Ashland, Oregon

2019 WAS Conference

Ashland Hills Hotel & Suites
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2525 Ashland Street
Ashland, Oregon 97520
ashlandhillshotel.com
855.482.8310

The 2019 Western Apicultural Society
Conference is hosted by Ashland Hills Hotel &
Suites and Convention Center on July 12–14.
A preconference adventure day is scheduled
for July 11.



Getting to Ashland

By auto, Ashland is centrally located halfway between Portland, Oregon and San Francisco, California, about 15 miles north of the California border and easily accessed from Interstate 5, Exit 14, as well as other routes. Once you arrive, enjoy navigating Ashland as a driver, pedestrian, or cyclist. For trails and bike routes request an Ashland Map Guide from: www.ashlandchamber.com.

By air, fly into the Rogue Valley International Airport (MFR), located in **Medford**, with commercial flights provided by: Alaska, Allegiant Air, American Airlines, Delta Connections, and United Express offered through SkyWest. (The airport in Ashland is a municipal airport.) From there, ground transportation to Ashland is available through shuttle and cab services.

- Crater Lake Taxi: 541.333.3333
- Cascade Airport Shuttle: 541.488.1998
- Yell Oh Taxi: 541.973.0800
- Super Saver Rent-a-Car: 541.482.2521

Rental car services include Alamo, Budget, Hertz, National and Enterprise.

By train, AmTrak's stations are 70 miles east of Ashland in Klamath Falls, Oregon, and 75 miles south in Dunsmuir, California. Daily bus service provided by

Greyhound-Trailways and The Shuttle, Inc/Southwest Point from Klamath Falls to Ashland's Siskiyou Blvd. See: www.amtrak.com or www.southwest-point.com. (541.883.2609).

Tickets for the Southwest Point shuttle must be purchased through Amtrak or at the station. The Southwest Point Shuttle does not take reservations.

If traveling **by bus**, the Rogue Valley Transportation District (RVTD) provides public transit service Monday-Saturday throughout Ashland and the Rogue Valley. For information, see: www.rvtd.org.

Staying in Ashland

Ashland Hills Hotel & Suites and Convention Center (www.ashlandhillshotel.com) is located a short drive from downtown Ashland. If you would like to stay at Ashland Hills, the rate is: \$149 King Rooms | \$159 Queen-Queen Rooms & Premium King Rooms | \$169 King Suites & Double-Double Suites.

Be sure to make reservations by **June 17, 2019**, to receive these rates.

To **reserve your room by phone**, call the Hotel directly at 541.482.8310 or toll free 855.482.8310. Be sure to mention Western Apicultural Society when booking.

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To **reserve your room online**, visit ashlandhillshotel.com, click "Book Online," enter the date of your stay and number of nights, then enter our GROUP ID #256952 in the Group ID field.

The hotel is newly renovated with one-of-a-kind, retro-modern furnishings. It is located on a 14-acre property overlooking the hills of Ashland. Guests are invited to enjoy the following hotel amenities and services:

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- Bikes for rent (fee)
- Fitness rooms
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- Business center access
- Shuttle to downtown (fee)

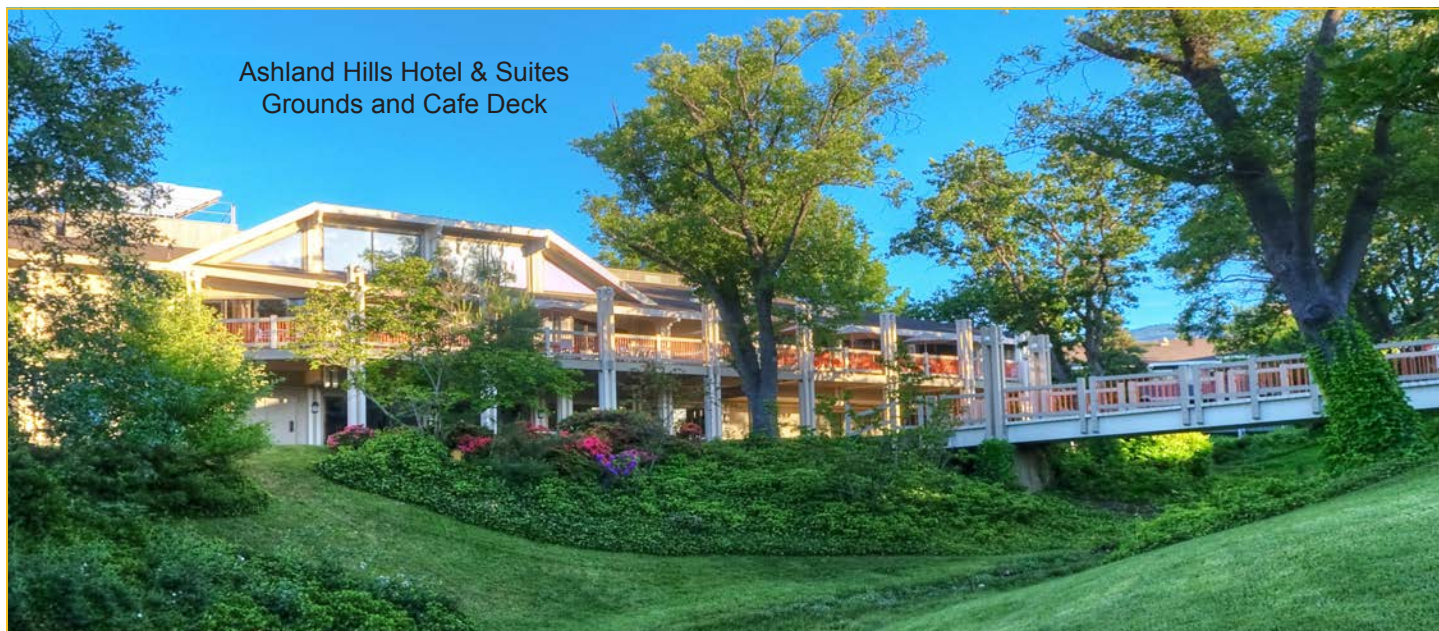
If you would like to stay off site, there are plenty of other options! Peruse local homes at:

airbnb.com

Find inns, bed and breakfasts, and more hotels through travel sites and the Ashland Chamber of Commerce at:

www.ashlandchamber.com

Wherever you plan to stay, please note that there is no parking fee for folks attending conference events.



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Ron Bitner, PhD—Bitner Vineyards LLC, Caldwell, Idaho



Build it and they will come. In the early 1980s, I worked for the University of Idaho as their first Integrated Pest Management specialist on alfalfa seed in Southwest Idaho. I also found property along the Snake River for the magnificent view. My neighbor was the first wine maker for Ste. Chapelle Winery, and he convinced me that I had the perfect site to grow world-class wine grapes. I took his advice and started planting 15 acres of vinifera wine grapes. From that period until today, I have had those two passions in my professional career of working with the non-*Apis* managed bees (alfalfa leafcutting bees, blue orchard bees, alkali bees, and bumble bees). My second passion of farming my vineyards [www.bitnervineyards.com] has allowed me to do both projects to produce healthy bees and healthy soils for my vineyards.

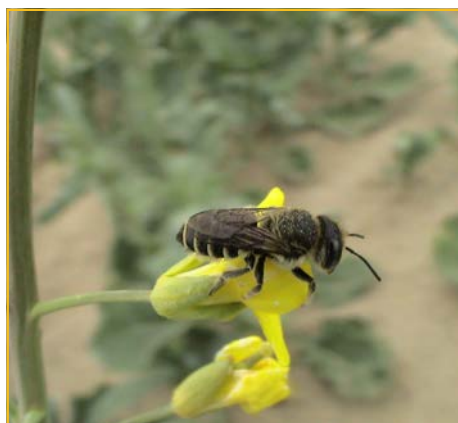
In 2014, I had my vineyards certified as Part of the LIVE Inc program. LIVE supports environmentally and socially responsible winegrowing through third-party certification and education. Its roots are in the Pacific Northwest, and the standard is internationally accredited. Part of the goal is to produce healthy soils for the vines. To combine my two passions, I began to plant vegetation that not only built up the soils but also would produce healthy nectar and pollen sources. Seven percent of my 14 acres is set aside as what I call my *pollinator and beneficial insect reservoirs*. For the past several years, I have been working to establish different plants for my location that are primarily bee friendly using both native plants and plants that attract bees and other beneficial insects. I also make available sites for ground nesting and tube nesting bees. This is ongoing, and the list of beneficial insects continues to grow each year. My bees are happy, and my vines are happy for the protection from beneficials. Life is good.

On a side note, I have recently joined the board of directors for the North American Pollinator Partnership, which is focused on pollinator health throughout Canada, the United States, and Mexico.

Enjoy some recent photos from my pollinator and beneficial insect reservoirs.



Pollinator Strip Near Bitner Vineyard



Leafcutter Bee



Ground Nesting Bee on Globe Mallow



Sunflower Bee



Canola Strip in Vineyard



Halictid Ground Nesting Bee



Lacewing on Hazelnut Tree



Pseudomasarid Wasp on Milkweed



Ladybug Larva on Oak Leaf



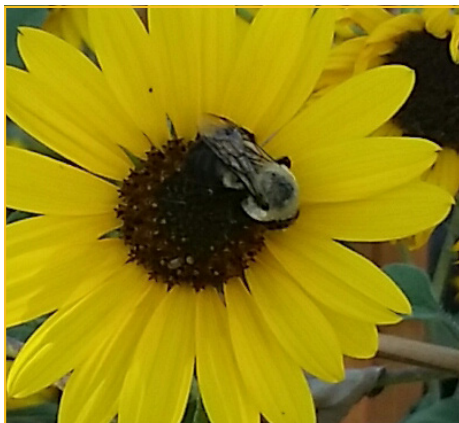
Pollinator Strip



Canola Strip In Vineyard



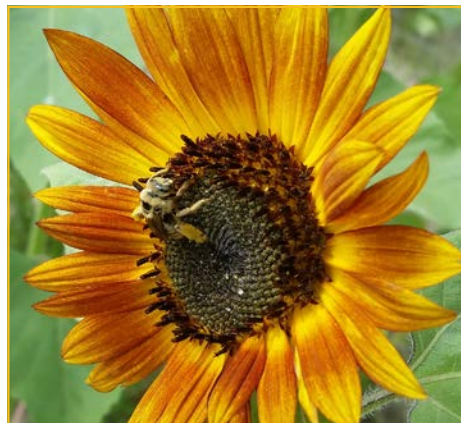
Preying Mantis in Pollinator Strip



Bombus sp. on Sunflower



Diadasia Ground Nesting Bee



Sphecid Wasp on Pollinator Strip

* Ron presented "Bee-Friendly Farming: Ground Cover for Native Bees" at the 2018 WAS Conference. Pollinator photos © Ron Bitner.

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WAS Internal Fiscal Review

2018 Internal Fiscal Review Committee—November 30, 2018

The WAS 2018 Internal Fiscal Review Committee met at the offices of Quadrant Consulting on November 30, 2018. The Committee was appointed by Steve Sweet, WAS President, on August 4, 2018, and was composed of Mike Cooper, Dick Knapp, Jim Tamarelli, and Steve Sweet. Ms. Sherry Olsen-Frank, WAS Treasurer, was in attendance, and she presented WAS financial statements for the 2017 calendar year, and September 2018 YTD.

The Committee:

- a) Discussed the latest WAS conference; the general leadership; organization and leadership changes since the last review.
- b) Had Sherry describe the financial procedures she follows.
- c) Went over the Statements of Financial Position and of Financial Income and Expense for the calendar year of 2017 as well as September 30, 2018 YTD, comparing these statements to those of the prior years and discussing line items of interest.
- d) Reviewed statements that Sherry provided on the 2017 and 2018 annual conference.
- e) Looked over Sherry's cross-referenced detail supporting the Statements of Financial Position, noting copies of bank statements and PayPal records supporting balances.
- f) Reviewed with Sherry the procedures followed for authorizing expenditures, looking at the detail supporting a few disbursements.
- g) Reviewed the General Ledger detail for items which might stand out, noting also that liability insurance premiums had been paid.
- h) Inquired as to nonprofit status, Sherry indicating that the "post-card" filing of the Federal Form 990-N online had been performed, but there is an issue that Sherry is clarifying with California as to the organizational reporting there.
- i) Discussed subsequently Sherry's backup procedure. Sherry backs up her client files, including the WAS files to a flash drive routinely.

Conclusions:

- a) WAS financial records are up-to-date and appear to be fully consistent with the bank records presented.
- b) Sherry is doing a very professional job as Treasurer, and WAS is fortunate that she has volunteered and served in this position.
- c) As is typical for small organizations, segregation of duties and responsibilities used as controls in larger organizations is a challenge, but there appear to be some actions which could be taken to tighten controls in this area:
 - 1) Make sure that another officer (or officers) is an authorized signer on the cash (checking, money market, CD) accounts, and that officers receive quarterly bank statements.
 - 2) Share with an Executive Board member the passwords of PayPal and other online accounts. Do this securely (e.g., if by email, do only with well encrypted files).
 - 3) Mail a check register and financial statements to Executive Board members quarterly and discuss by phone.
- d) The issue with California should be resolved, and afterward pursue the possibility and procedure for changing WAS to a state with simpler reporting requirements. Idaho is a possible candidate.
- e) WAS basically broke even on the 2017 conference and appears on track to approximately break even for calendar year 2018. The board and officers are making changes designed to make WAS more relevant and to grow membership. This raises the likelihood that IRS reporting Form 990-EZ rather than 990-N will be required (if organization normally has receipts in excess of \$50,000). The board should compensate Sherry to perform this, or seek outside expertise.

Beekeepers' Calendar

February 9: **Washington State Beekeepers Conference.** Eastern Washington University. Information: jenifer@wasba.org.

February 9 (10 AM–4 PM): **Oregon Coast Honey Lovers Festival.** Yachats, Oregon. Information: www.yachats.org/event/oregon-coast-honey-lovers-festival-4.

February 14–16: **PNW Pollinator Summit and Conference.** Oregon State University. Corvallis, Oregon. Learn more about the program: www.oregonbeeproject.org/pnwpollinators2019.

March 22–23: **British Columbia Honey Producers Association Semi-annual Business and Education Day.** Kamloops. Information: bchoneyproducers.ca/kamloops-2019.

March 22–24: **The Wyoming Bee College Beekeeping Preconference Workshops and Conference.** Laramie

County Community College, Cheyenne. Information: www.wyomingbeecollege.org.

May 18–19: **Oregon Honey Festival.** Information: www.oregonhoneyfestival.com.

July 12–14: **The Western Apicultural Society Annual Conference.** Ashland, Oregon. Information as it becomes available: www.westernapiculturalsociety.org.

July 17–20: **2019 International Conference on Pollinator Biology, Health and Policy.** University of California-Davis. Information: honey.ucdavis.edu/pollinatorconference2019.

September 8–12: **46th Apimondia.** Montreal. Registration is now open: www.apimondia2019.com.

October 4, 5 and 6: **2019 BCPA Annual General Meeting, Conference, and Tradeshow.** Prince George. A great reason to visit BC Canada!

October 25–27: **Oregon State Beekeepers Association Fall Conference.** Florence Event Center. Florence, Oregon. Information as it becomes available: orsba.org.

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State of WAS Bees | Winter 2019

The WAS region is extensive and amazingly diverse. So, too, are the conditions for the bees and the options for those who care for them. Here we find director reports of some of the conditions this season. See additional area events in the Beekeepers' Calendar (page 24) and/or posted at: www.westernapiculturalsociety.org.

BRITISH COLUMBIA—Nancy Burkholder

“Thinking Spring” isn’t hard to do in the Interior of British Columbia with the mild winter we are having. Other areas of BC are having record-breaking snowfalls or extraordinarily destructive windstorms. Our 2019 provincial spring survey may shine some light on the toll the weather is taking on honey bee colonies in each area. The British Columbia Ministry of Agriculture annual Beekeeping Production Survey, which surveys beekeepers with 10 colonies or more, shows that 2018 honey production was down from some recent years. Our province is divided into seven distinctly different beekeeping regions. The following figures are an average from all of these areas combined:

- A total of approximately 1.5 million kg (1 kg = 2.214 lb) of honey was produced in BC during 2018, 56 percent of which is being sold at retail prices averaging \$12.30 CAD/kg.
- About 22,331 kg of beeswax was sold at an average of 14.18 CAD/kg.
- 18,313 BC raised Queens were sold in 2018.
- Just over 29 thousand colonies were used for pollination contracts for an average fee of 114 CAD/colony.
- 5,259 kg of pollen was sold for an average of \$22.42 CAD/kg.

The 2018 BC Honey Producers' Association Annual General Meeting, Conference, and Tradeshow in Victoria BC this past October was another total success. There were, as usual for this organization, so many wonderful speakers scientists, vendors, participants, and food! During the conference, Minister of Agriculture Lana Popham announced an additional \$50,000 toward BC bee projects in addition to the \$100,000 that has already been committed.

The day before the conference began, BCHPA hosted a Honey Judging Course which graduated 12

BCHPA members. Hopefully there will be more club and community honey competitions in BC this coming harvest!

The British Columbia Honey Producers Association will be hosting its semi-annual business day and education day in Kamloops on March 22–23, 2019. Special guests this year will be Paul Kelly from the Honey Bee Research Centre at the University of Guelph and Les Eccles from the Ontario Tech Transfer Team. The program will also feature research updates, local beekeeper/Bee Inspector Diane Dunaway, and our Provincial Apiculturalist Paul van Westendorp. For info, check out the BCHPA website at: bchoneyproducers.ca/kamloops-2019.

In the time it has taken me to write this, 4 inches of lovely powder snow has fallen, snuggling my hives in for the remainder of winter. I will try to contact my beekeeping friend and see if we can find a day to go for a snowshoe before the hectic days of spring are upon us because, like Winnie-the-Pooh said, “You never can tell with bees.”

MONTANA—Jaylene Naylor

Winter in Montana makes for a pretty quiet time in beekeeping. I anxiously await the occasional oddly warm day to run out to the garden and see the bees flying, but this hasn't happened since early November. Most of us have to be content with putting ears to the hives and knocking lightly to hear if our bees are still alive! So far, the small sample of beekeepers I've been speaking with have been experiencing late-fall and winter losses. Many of us are discouraged that our mite treatments were not effective or were ill-timed. We'll just have to work harder and smarter this season!

As I write this, we've finished our preparations for our annual Beekeepers of the Bitterroot (www.beekeepersofthebitterroot.org) Beginning Beekeeping class on January 12 in Hamilton, Montana. We've been holding this day-long introductory class for several years, and generally have 50–75 people attend. The class is instructed mainly by people with 30 or more years experience or ones that have taken one or more of the University of Montana's Master Beekeeping courses, developed by Jerry Bromenshenk, Scott Debnam, and Phil Welch (www.umd.edu/bee). It is an extremely abbreviated version of the apprentice course. We talk about what you need to get started, honey bee biology, treatments, equipment, and registration with the state,



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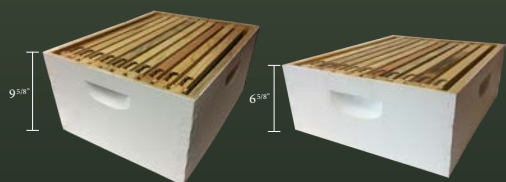
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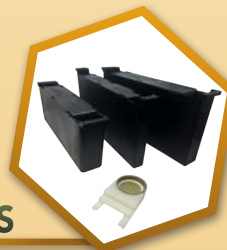
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among other topics. When we first started teaching it, I was disappointed at how few people went on to actually begin beekeeping—something like 10 percent or less. As the years have gone by, I now feel that we are doing a great service to the students and our local hobbyist and commercial beekeepers by being honest about how hard (and expensive!) beekeeping is as a hobby.

Speaking of registering with the state, I'd strongly encourage every hobbyist beekeeper to register here: agr.mt.gov/Bees. In Montana, non-hobbyist beekeepers are required to register, while hobbyist registration is voluntary. Registering gives you the benefit of on-site inspections by our state's entomologist, Alyssa Piccolomini, in



Alyssa Piccolomini, Montana State Entomologist, watches over the burning of an AFB-infected hive.

the case that you believe you may have AFB, for example, as well as free Nosema testing and pesticide spray alerts. Registration costs are a one-time paperwork fee of \$20 and then \$19 per site per year.

This year in the Bitterroot, we had one confirmed case of AFB, and Alyssa as well as Jerry Bromenshenk and several others from the Missoula and Bitterroot associations confirmed the diagnosis. The beekeeper did the responsible thing and burned his hive. Fortunately, our bee association was able to give him some new equipment, generously donated by Western Bee Supplies (western-bee.com), and a wonderful beekeeping friend donated a swarm he'd caught.

Here's hoping for a great beekeeping season and many great, informative bee meetings. I'll be talking to you again in a few months!

NEVADA—Del Barber Bee City USA – Carson City

On October 18, Nevada's Capital City was buzzing as Carson City was certified as the 76th Bee City USA in the nation and the first Bee City USA in Nevada. Bee City USA is an initiative of the Xerces Society for Invertebrate Conservation. The Carson City Board of Supervisors voted unanimously to become an affiliate of Bee City USA. This finalized the efforts of the Great Basin Beekeepers of Nevada and Carson City Parks, Recreation and Open Space to accomplish this certification. Mayor

Bob Crowell said, "You said it [pollinator conservation] was really important; it's probably critically important. Pollinators are a critical component of the natural resources we have. The more information we can get



Presenters at the January meeting, the Bee City USA Carson City executive committee. Left to right: Lyndsey Boyer, Linda Groves, Del Barber, Myrna Barber, Gillian Mellor, and Frank Mellor.

out that bees are our friends, the better. And they really are our friend."

Bee City USA's mission is to galvanize communities to help sustain pollinators by providing them with healthy

habitat, rich in a variety of native plants and free to nearly free of pesticides. "The program aspires to make people more PC, also known as *pollinator conscious*. If lots of individuals and communities begin planting native, pesticide-free flowering trees, shrubs, and perennials, it will create large-scale change for thousands of species of pollinators at risk," said Bee City USA founder, Phyllis Stiles. "How each city or county celebrates pollinators is up to them, but we especially encourage educational programs for children, like school gardens. When a child falls in love with pollinators, they are friends for life."

Holiday Celebration and Raffle

On a Saturday night in December, Great Basin Beekeepers of Nevada, a group of about one hundred local beekeepers, gathered together at the Bee Magic Building located in Mound House for their annual holiday celebration and initial raffle. Association officers provided the turkey and ham for a scrumptious best potluck. The beekeepers, their families, and friends mingled and awaited the excitement of the raffle drawing for the 98 prizes the members had collected. With the generous community contributions and support, from the American flag that over the Capitol to an overnight stay at the Hard Rock Hotel and numerous gift certificates for dining, groceries, beauty treatments, homemade jams, jellies, jewelry, candles, hats, cups, books, and much more. The money collected from the raffle will be used to support the association's mission to educate and mentor area beekeepers and to promote awareness of the current threat that pollinators around the world are facing through local education and the creation of sustainable habitats for pollinators.



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A Hobbyist Beekeeper's Takeaway from Randy Oliver's Hot Topics at WAS 2018

Mark Nagel—*Treasure Valley Beekeepers Club, Boise, Idaho*

Before I dive into Randy's "Hot Topics of the Moment" at WAS UP! 2018, I just want to take a quick second to thank all of the speakers this last year. Steve Sweet and the Treasure Valley Beekeepers Club did an outstanding job lining up a conference full of speakers and activities that related to beekeepers of all levels. In an age where information is at the tips of our fingertips, the opportunity to spend a few days attending the annual WAS conference knowing you are receiving fact-based, up-to-date information should not be passed up.

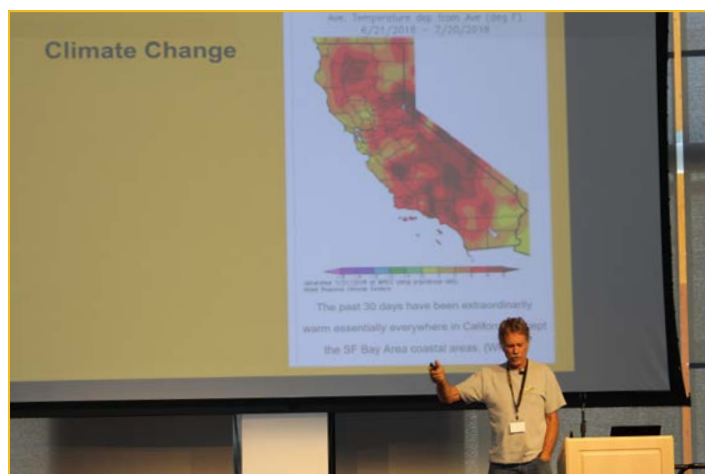
This was the fourth time I have attended a talk by Randy Oliver, and he once again did not disappoint with several key takeaways I would like to share with you. Randy started by sharing some interesting data he has been collecting around climate change and heat stress on the hive. Seeing temperatures of around 170°F on the top of the hive when bees want 95°F, the bees are doing a lot of work evaporating water to keep the hive cool. "Common sense and intuition is right half the time," he stated as he showed ventilation may not be the answer to helping the bees. There is more to come on this topic, and I cannot wait to see what he finds.

A brief lesson on parasite transition (better explained than any biology class I ever had) led Randy into some very useful perspectives. As beekeepers, we just keep on replacing failed colonies. This is weeding out natural selection. "Instead of being anti-treatment we need to better educate ourselves and improve our practices to be pro-genetic improvement."

I highly suggest looking at the modified Bond method Randy details on scientificbeekeeping.com. "We need to stop punishing the colony and start punishing the queen."

The very eye-opening topic of the talk was when Randy addressed late-summer mite drift. Monitoring both hive weight and robbing is a good way to confirm drift. Instead of mites dying off, it makes perfect evolutionary sense that they catch a ride with the robbing bees to the next strong hive and not die with the hive they left behind.

Once again, I refer you back to scientificbeekeeping.com.



scientificbeekeeping.com, where Randy has two great articles this year about drift.

Finally, Randy reminded us that beekeepers love snake oils and we need to always ask for supportive data for any product before putting it in our hives. Nothing is better for our bees than natural pollen, which is not always available. There is a need in the industry to improve the pollen substitutes that we use. As Randy stated, "Limiting nutrients are like only getting half the Legos."

The limiting nutrient we see in most pollen substitutes is zinc, of which bees require 60–75 ppm. Another common ingredient added to pollen substitutes is vegetable oil used as a binder and to keep the patties soft. Unfortunately, vegetable oil is missing 24-methylene cholesterol. This sterol is important to bees as it is passed from the nurse bees fat bodies to larvae. Cholesterol is a vitamin to insects and they have to have it in their diet. There is not a very good source of inexpensive 24-methylene cholesterol available. Using borage oil was recommended by Randy.

Hopefully, these summarized points taken from Randy's talk at the 2018 WAS Conference will help you with next step in becoming a better beekeeper. Thanks again to Randy for the great information, and, as I often say when people ask me questions, please go check out:

scientificbeekeeping.com

Learn more there, including more about everything I have highlighted!

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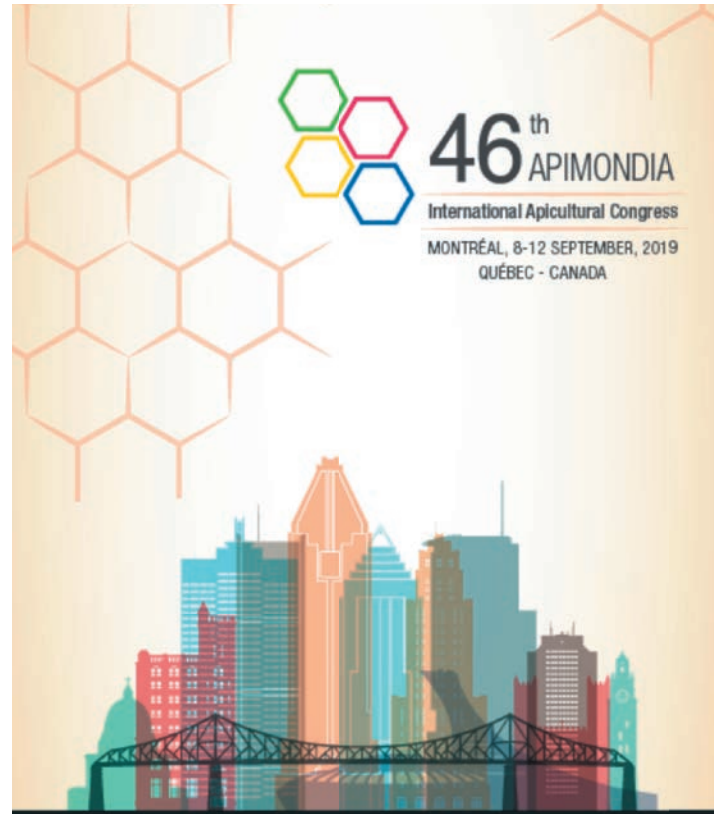
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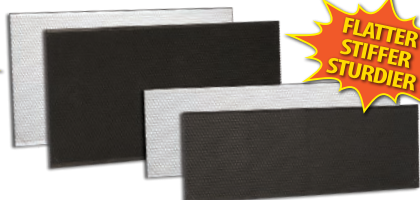
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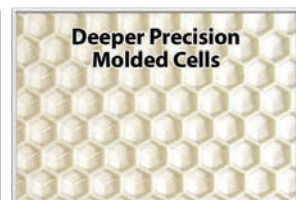
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Eliza Jane Donovan

A 19th Century Beekeeping Legend | A 20-Year-Old Irish Immigrant Mother Part 3

Al Chubak—WAS Utah Regional Director, Murray, Utah

Continued from November 2018 issue of the WAS Journal

Business for a Woman in 19th Century America

“The trend in the belief of feminine inferiority was halted as women effectively managed organizations not directly related to the family. To alleviate the fears of men that their wives were concentrating on issues unrelated to the family, piety did not keep a wife from her proper sphere. Meetings could be held in the home. Young children could be brought along the same way they would be when visiting friends. The lady of the house would demonstrate her domestic skills by cleaning the house before her guests arrived and by making sure they had something to accompany the tea which could be served during a meeting.” And, “The wife’s role was to complement her husband, reflecting credit on him and herself. A man took a wife to look after his affairs, and to prepare his children for their proper stations in life. It was a wife’s duty to care for her husband’s interests.

To these ends, she was to be mistress of the family and run it well enough so that her husband would only enjoy it and could focus his attention on the matters of the world. As long as the household could be managed within the bounds of the husband’s income by a woman who practiced and taught piety, purity, and submissiveness, then “all [was] as it should be.” Books devoted to housekeeping and cooking made it perfectly clear that a woman’s domain was her home and she was expected to have total charge of all within. If she was unfamiliar with family management, she was urged to consult the authorities.²

Eliza Jane Donovan was maintaining her piety by effectively managing her home, children, and increasing her colonies, which no doubt supplemented her family’s income. Her efforts complemented her husband’s as well as displayed a great deal of inner strength for a lady of the period. This was exactly what she had hoped to teach to the ladies in Salt Lake City.

Responsibility of 150 Colonies

Eliza Jane referenced she was a second-year beekeeper with 150 colonies. Unsure of what was considered a colony, nor the hive style she employed, or even the method of honey processing used, this is still a feat as a second-year beekeeper. To some degree, her husband John was employed, leaving a young mother of three with at least one infant of nursing age to attend to 150 colonies. She had some understanding of splits, queens, and was

willing to teach others. She also took the time to read a local beekeeping journal, which may have allowed her personal interaction with the publisher and those written about in its pages. She clearly had enough invested and understood beekeeping to the level she created and patented a beehive.

This task of obtaining a patent was achieved only by one other prior to Eliza Jane Donovan. She was a problem solver and to some degree displayed traits of an overachiever. Also unclear is how

much woodworking experience she possessed. Not the power saws and drills of the 21st century, but hand tools which require craftsmanship unique to a 20-year-old young Irish immigrant mother. The jaw drops lower and lower as all these issues are factored into a panorama of what made up this 19th-century woman.

Eliza Jane Donovan Patented a Beehive

In the same year as the date of her letter, Eliza Jane submitted a patent to the US Patent Office for designs of her version of a beehive. Her design had side panels that fanned open allowing inner frames to separate like pages of a book. It appears the frames were still attached in some way to the rear of the hive. This adaptation allowed for simple inspections, but it stands to reason that the bees would reposition themselves, causing issues with closing it up. A question remains on how the frames



A couple working in a Utah bee yard in the 1880s. From: Utah State University Photograph Collections.

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Brad Pankratz, 2015 President, California State Beekeepers Association

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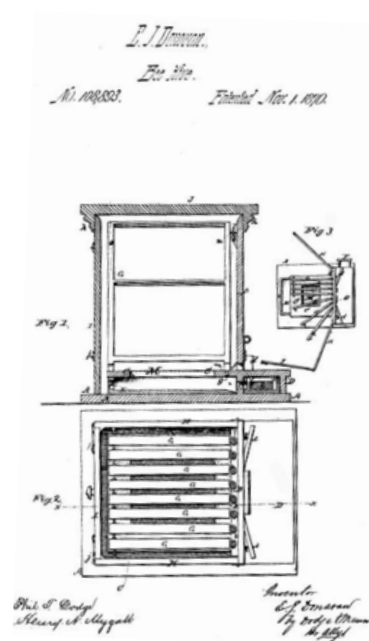


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were attached to the rear of the hive. Interesting simple hive design ideal for a lady not wanting to wrestle with the 5 pound–8 pound frame.



Eliza Jane Donovan's agricultural patent for a Beehive, November 1, 1870.³

Women invented many items during the 19th century. Those inventing beehives included:

- Hornbrook, Triphena P. patent 32,367
- Donovan, Eliza Jane patent 108,893
- Gibson, W. T. patent 108,893
- O'Connor, Elizabeth patent 119,991
- Farnam, Harriet A. patent 122,242

There were 187 agricultural patents granted to female inventors. Of the top of these patents granted, Cathrine A Griswald obtained 31 patents related to sewing. The top ten lady inventors of the 19th century amassed 146 patents alone.⁴

Moved to Kentucky and Raised a Family

Eliza and her family lived in Indianapolis, Indiana, in 1870, then a decade later appeared in the US Census at Indian Creek in Hancock County, Kentucky. This move was about a 200-mile trip south, just beyond the Indiana border in Kentucky. Indianapolis to Indian Creek was a huge difference in landscape, perhaps a better environment to raise colonies, and an opportunity for her husband John Donovan to work in the coal mines. The first commercial coal mine was begun in Kentucky in 1820.

In the 1880 census, John is listed as a “c laborer,” which denotes “coal mine laborer.” The move to Utah obviously fell out of favor, perhaps due to Brigham Young not responding or limited information on beekeeping and conflicts of marriage lifestyles at the later end of the 19th century.

Women of Today Are Pioneers in Beekeeping

There are many significant women today in beekeeping who are pioneering like Eliza Jane Donovan did as well as countless “ladies teaching” the amazing intricate world of honey bees and beekeeping. An attempt was made to document such a list; however, it grew and grew with incredible biographies for each. This list could be a book unto itself, or master-list of “lady” speakers in every aspect imaginable with regards to *Apis*.

An Eliza Jane Donovan Conference Today?

There is a new movement brewing today where some women are leaning towards a beekeeping conference where women are the only ones on the speaking agenda. Ladies teaching not only other ladies, but everyone.

As with Eliza Jane, who had an innate understanding to what was needed for a woman to succeed in beekeeping in 1870, our “ladies” of the 21st century are masters where all can benefit from their experience at any level.

Perhaps in the next year or two a beekeeping conference will be organized for all to attend where the speakers are chosen solely from the multitudes of amazing 21st-century beekeeping “ladies.”

¹Carson, Joe. 2017. Wintering honey bees in northern climates. *Western Apicultural Society Journal* November, pages 34–35. [referenced in Part 2]

²www.teachushistory.org/detocqueville-visit-united-states/articles/early-19th-century-attitudes-toward-women-their-roles

³patents.google.com/patent/US108893A/en

⁴staff.lib.muohio.edu/shocker/govlaw/FemInv/sub.php?iname=Agricultural



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Honey Bee Health Coalition Report

Dewey Caron—WAS Representative and Tammy Potter—EAS Representative

Since its formation, the Honey Bee Health Coalition has provided science-based focus on many of the challenges facing 21st century beekeepers: changing land use, Varroa mites, nutrition concerns, fragmented lines of communication. In an effort to provide a “one-stop” shop for beekeepers and growers, the Honey Bee Health Coalition has made it possible for Eastern Apicultural Society and Western Apicultural Society members to benefit from Coalition resources, such as the *Tools for Varroa Management*, as well as collaborative requests for improvements in USDA recommendations for planting guides and appeals for beekeepers to have access to public lands. This document provides a summary of EAS Tammy Potter’s and WAS Dewey Caron’s efforts for this past year and also a preview of the upcoming year’s projects.

Working together for the latter part of 2018 on the Hive Management Working Group, Dewey and Tammy worked on a document defining hive management BMPs. This document will be unveiled at the ABF Conference in Myrtle Beach, South Carolina, in January 2019. It is designed to assist in management decisions each beekeeper faces. [It’s out; see: honeybeehealthcoalition.org/wp-content/uploads/2019/01/HBHC_Hive_BMPs_v1.0_reduced.pdf]

Separately, Dewey worked on updating the Tools for Varroa Management Guide, 7th edition, which was released June 2018. While continuing to serve on the Steering Committee and Outreach Committee, Tammy worked on projects in the Forage and Nutrition subgroup, editing letters to USDA Undersecretary Northey, specifically one that requested that beekeepers be allowed to move their hives to federal lands. Both EAS and WAS were signatories of this letter. She has also been available for media interview requests.

In addition, the following projects were also released from the **Crop Pest Management Working Group**:

- Best management practices for soybeans was completed in 2018 and distributed
- Launched development of both corn and canola BMPs

Our EAS and WAS members will continue to benefit from this alliance in 2019, even as the Honey Bee Health Coalition expects its funding sources to decline due to mergers. For now, Keystone plans to be conservative in its assumption for 2019 funding. Nonetheless, both Tammy and Dewey will continue to serve on new and continuing

projects listed in what follows.

Bee Integrated Demonstration Project

- Complete/sustain ongoing work:
 - Support project work plan for six project pairs (commitment through 2020 or 2021)
 - Increase outreach and promotion of project
 - Begin drafting concepts for how to scale the Bee Integrated model to more cost effectively add participants and geographies in the future.

Crop Pest Management Working Group

- Complete/sustain ongoing work on:
 - Canola BMP development and promotion (complete development in Q1 2019)
 - Corn BMP development and promotion (complete development in Q2 2019)
 - Soybean BMP continued promotion (ongoing)
 - Crop pest advisor and applicator training promotion in partnership with National Pesticide Safety Education Center (the official ‘owner’ of the BMP recommendations), ongoing
- Pending resources, initiate work on the following:
 - Additional crop-specific BMPs, whether through facilitation of the full process or consultation to support other associations in their own efforts
 - Prioritize additional crops to support
 - Update the Coalition website to provide a one-stop source of information on crop-specific BMPs

Hive Management Working Group

- Complete/sustain ongoing work:
 - Hive Management BMPs finalization and promotion (complete development by Q1 2019)
 - Tools for Varroa Management Guide update (Q2 2019) and continued promotion
 - New varroacide screening – continued facilitation (project is funded by the FFAR grant for a 3-year commitment 2018–2020)
- Pending resources, initiate work on the following:
 - Tools for Varroa guide smartphone app development (will apply for grants in Q4 2018)

Forage and Nutrition Working Group

- Complete/sustain ongoing work:
 - Nutrition Prize Competition completion (selection of

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- 1982 **William P Nye** (Utah)
- 1983 **John Edwards** (Washington)
- 1984 **Eric Mussen** (California)
- 1985 **Mike Burgett** (Oregon)
- 1986 **Doug McCutcheon** (British Columbia)
- 1987 **Tom Muncey** (Nevada)
- 1988 **Dan Mayer** (Washington)
- 1989 **Stan Williams** (California)
- 1990 **Mark Shelton** (California)
- 1991 **William P Nye** (Utah)
- 1992 **Mike Burgett** (Oregon)
- 1993 **Mark Winston** (British Columbia)
- 1994 **James Bach** (Washington)
- 1995 **Eric Mussen** (California)
- 1996 **Russell Messing** (Hawaii)
- 1997 **Eric Erickson** (Arizona)
- 1998 **Steve Sheppard** (Idaho)
- 1999 **Leonard Joy** (Nevada)
- 2000 **Fletcher Miller** (Alaska)
- 2001 **Mike Burgett** (Oregon)
- 2002 **Eric Mussen** (California)
- 2003 **Jaquie Bunse** (British Columbia)
- 2004 **Jerry Bromenshenk** (Montana)
- 2005 **Steve Sheppard** (Washington)
- 2006 **Adrian Wenner** (California)
- 2007 **Diana Sammataro** (Arizona)
- 2008 **Mark Pitcher** (British Columbia)
- 2009 **Eric Mussen** (California)
- 2010 **Dewey Caron** (Oregon)
- 2011 **Jenny Bach** (Hawaii)
- 2012 **James K Smith** (Washington)
- 2013 **Melanie Kirby** (New Mexico)
- 2014 **Jerry Bromenshenk** (Montana)
- 2015 **Beth Conrey** (Colorado)
- 2016 **Ethel Villalobos** (Hawaii)
- 2017 **Eric Mussen** (California)
- 2018 **Steve Sweet** (Idaho)
- 2019 **Sarah Red-Laird** (Oregon)

winners in Q1 2018; final presentations by winners' results in Q1 2019); accompanying communication strategies

—Federal agency/federal decision-maker outreach regarding bee forage (ongoing; need discussion of how to increase impact of strategy)

- Pending resources, initiate work on the following:
- Second round of Nutrition Prize Competition or similar competition

Outreach and Education Working Group

- Continued external communications, e.g., the digital newsletter and social media, to develop the HBHC as a credible source of information for the beekeeping and crop production world
- Supply Chain Sustainability Outreach – utilize presentation and fact-sheet developed in 2018 to enhance outreach to companies, NGOs, crop associations, etc., to encourage embedding bee health practices for forage, crop pest management, and outreach into existing sustainability efforts
- Offer targeted webinars or presentations
- Presence at key outreach meetings opportunities such as ABE, AHPA, ABRC, AIA, Commodity Classic, Entomological Society, Apimondia, regional beekeeper meetings, Sustainable Agriculture Summit, etc. (attendance at some events pending resources)

Coalition Meetings to Support

- Steering Committee meetings monthly by phone
- Working groups meet every other month by phone call; subgroups meet as needed to advance initiatives
- Invite guest presenters to provide insights on key research areas through working group webinars
- Spring 2019 field tour focusing on corn planting and BMPs, accompanied business meeting to advance the above initiatives and provide a forum for member networking
- Based on resources, interest, and

so forth, evaluate adding the fall 2019 meeting; consider pairing with either Apimondia or North American Pollinator Protection Campaign.

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Keynote Speakers & Workshop Leaders include: Dr. Judy Wu-Smart, University of Nebraska-Lincoln | Katrina Klett, Elevated Honey Co. | Hilary Kearney, Girl Next Door Honey | Dr. Meghan Milbrath, Michigan State University | Anna Gieselmann, Bee Amour Jewelry | Sarah Red-Laird, Bee Girl | the native bee team from the Logan, Utah, USDA-ARS Pollinating Insects Research Unit | streamed opening welcome by Dr. Marla Spivak | and more. **Swarm in for Networking Opportunities and Activities:** Not only will you learn from the best and brightest, you'll have a whole host of opportunities to personally connect with other beekeepers, as well as the speakers and workshop leaders, to share your stories, projects, ideas, products, and interests. **Plan to arrive July 11th for some pre-conference fun:** Raft the Rogue River and take in a show at the Oregon Shakespeare Festival with your fellow beekeepers.

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www.westernapiculturalsociety.org



Western Apicultural Society of North America Inc
4207 SE Woodstock Blvd Ste 517
Portland OR 97206
www.westernapiculturalsociety.org



The **Ruhl** team has reformed as **HIVE & GARDEN** with a focus on the unique needs of Northwest beekeepers. We supply beekeeping equipment, livestock, and classes.

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- Beekeeping Equipment
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