



OREGON STATE BEEKEEPERS ASSOCIATION

2014 FALL CONFERENCE

November 6–8, 2014

Seaside Civic & Convention Center
Seaside, Oregon



Conference Program

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*Welcome to the Oregon State Beekeepers Association
2014 Fall Conference!*



*Seaside, Oregon
November 6-8, 2014*

**OREGON STATE BEEKEEPERS ASSOCIATION
2014 Officers**



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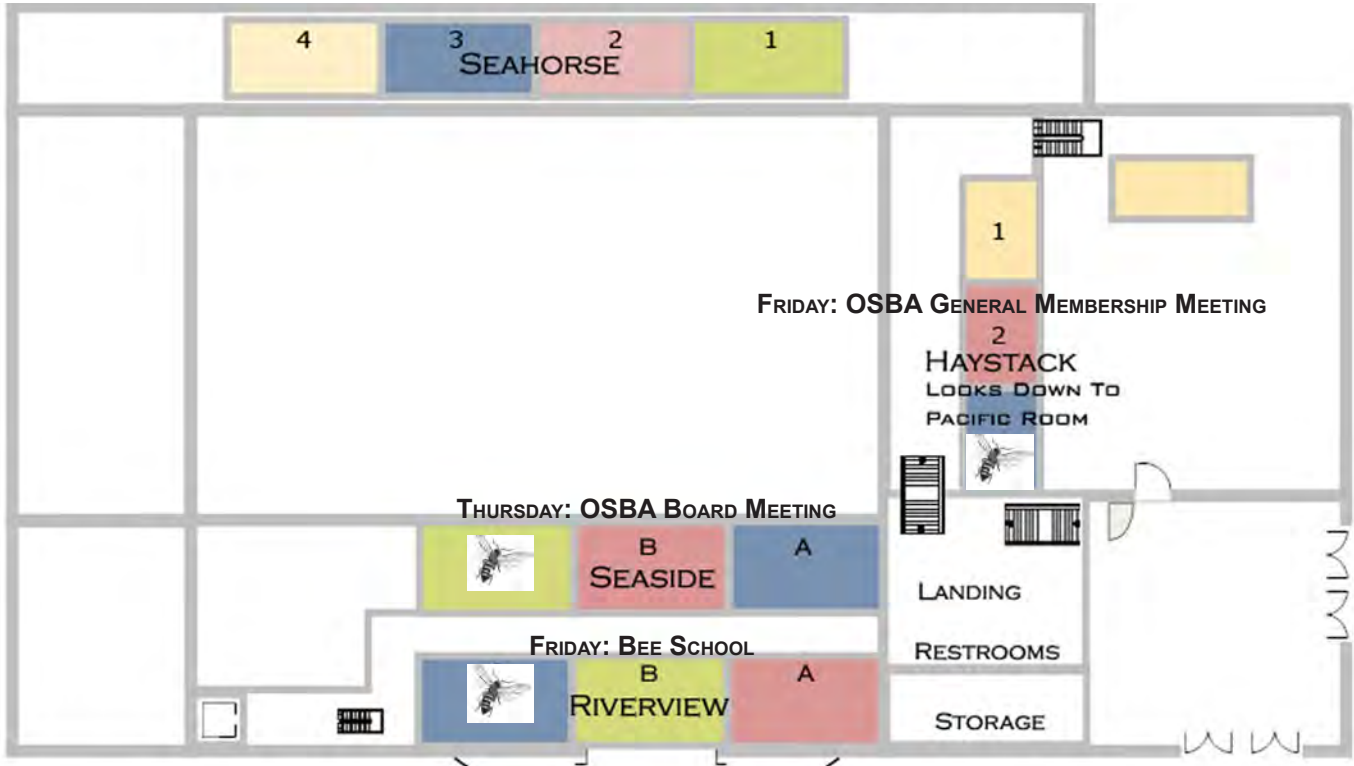


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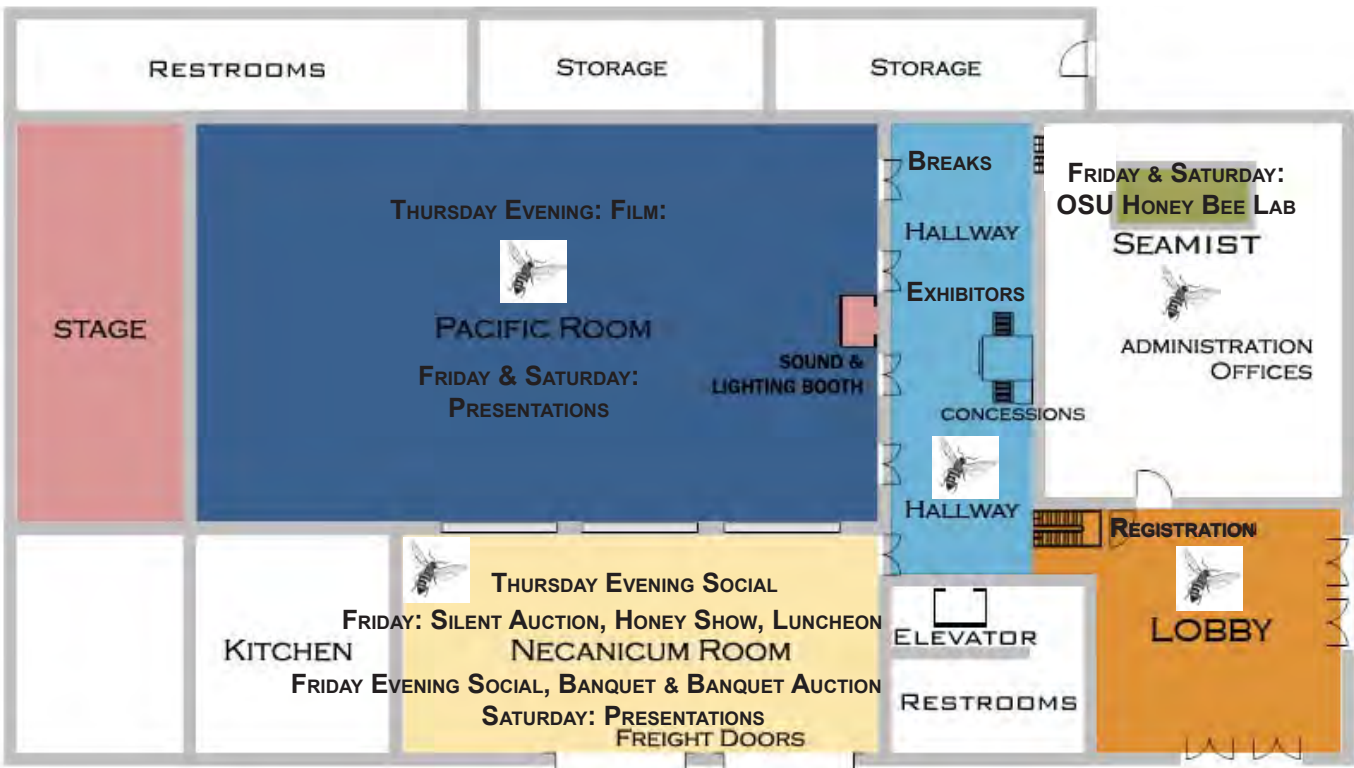
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Seaside Civic & Convention Center Floor Plan

UPPER LEVEL



MAIN LEVEL



Program & Abstracts

Thursday, November 6

Registration 5:00 PM–9:00 PM, LOBBY

Evening Social 7:00 PM IN NECANICUM ROOM/FILM IN PACIFIC ROOM

Friday, November 7 BEE SCHOOL & OTHER EVENTS

Registration

Bee School

Presenter: Thom Trusewicz, Oregon Beekeeper 8:30 AM–3:00 PM, RIVERVIEW ROOM

This beekeeping class covers beekeeping history and equipment; honey bee anatomy and physiology; the role of the worker, drone, and queen; bee behavior, mating, and communication; pests and diseases; swarming; honey, wax, propolis, and other hive products.

Silent Auction 8:30 AM–4:00 PM, NECANICUM ROOM

Oregon State University Honey Bee Lab

9:00 AM–4:00 PM, SEAMIST ROOM

Lab Techs: Jared Jorgensen and Ciera Wilson, Honey Bee Lab, Oregon State University

Stop by to see how the OSU Honey Bee Lab processes samples for the Honey Bee Health Survey. We will demonstrate how we analyze samples for Nosema, count Varroa mites, and dissect honey bees to look for tracheal mites and sample hypopharyngeal glands. We can also tell you about current research projects and extension events. Drop your own samples off for analysis after the conference.

Honey Show 10:00 AM–4:00 PM, NECANICUM ROOM

Entries Due: 10:00 AM | **Judging:** 10:00 AM–NOON

Research Luncheon 11:45 AM, NECANICUM ROOM

Presenter: Steve Sheppard, Washington State University

OSBA General Membership Meeting 4:15 PM, HAYSTACK ROOM

Social Hour 6:00–7:00 PM, NECANICUM ROOM

Banquet 7:00 PM, NECANICUM ROOM

Presenter: Kim Flottum, *Bee Culture* Magazine

FOLLOWED BY **Banquet Auction**

PRESENTATIONS

Welcome 8:30 AM, PACIFIC ROOM

Presenter: Paul Andersen, President, Oregon State Beekeepers Association

Drivers of Honey Bee Declines & Losses

Presenter: Dennis vanEngelsdorp, University of Maryland 8:45 AM, PACIFIC ROOM

We actually have some solid ideas about what drives colony numbers to decline over the long term. Yet, the drivers of the heavy annual losses are less clear. This talk will explore various possibilities and look at the evidence for each.

Update on Current Bee Research & Extension Activities at Oregon State University

Presenter: Ramesh Sagili, Oregon State University 10:00 AM, PACIFIC ROOM

This presentation will discuss several ongoing and completed research projects at the Oregon State University Honey Bee Lab that include: (1) Honey bee nutrition, (2) Efficacy of Varroa and Nosema treatments, (3) Effects of select pesticides on honey bee survival and behavior, (4) Estimation of the prevalence and intensity of *Nosema ceranae*, and (5) Longitudinal monitoring of health in commercial honey bee colonies.

Resin to Propolis: Plant Sources and Effects on Bee Health

Presenter: Marla Spivak, University of Minnesota 11:00 AM, PACIFIC ROOM

Bees collect resin from a variety of trees and shrubs, each varying in their antimicrobial properties. In the nest, bees combine resin with wax, where it is called *propolis*. When colonies are encouraged to construct an envelope of propolis inside the nest cavity, there are quantifiable benefits to colony immunity, disease levels, and strength.

10 Rules for Modern Beekeeping

Presenter: Kim Flottum, *Bee Culture* Magazine 1:15 PM, PACIFIC ROOM

Whether one colony or a thousand, these ten *rules* are fundamental to good honey bees and beekeeper well-being.

How to Become a Millionaire and Other Beekeeping Secrets

Presenter: George Hansen, Foothills Honey Company 2:00 PM, PACIFIC ROOM

In my decades as a beekeeper, I have received inspiration, know-how, and direction from many people and sources. Sometimes the lessons are direct and freely passed on from knowledgeable and important individuals. Sometimes the lessons are more from observations of what works, or often what doesn't work and nobody wants to talk about it. This presentation is hardly meant to solve all the problems of the world, and I am not intending to take credit for having invented or discovered anything. It is part of my attempt to help make sure *what comes around will go around*.

Predicting and Managing Pesticide Risks to Bees

Presenter: Paul Jepson, Oregon State University 3:15 PM, PACIFIC ROOM

A complex of factors appears to be behind declining health of honey bees. Among these factors, the Varroa mite is the single most identified cause of colony losses. While miticide treatments usually are used for mite control, the potential advantages of genetically based resistance to Varroa are widely recognized. Research at our laboratory has taken two different approaches that yielded bees with documented Varroa resistance. Russian honey bees and bees with resistance based on Varroa sensitive hygiene (VSH) slow the population growth of Varroa mites in their colonies. Russian and VSH bees are being used by a variety of beekeepers as significant tools to manage Varroa with no or fewer miticide treatments. At this relatively early stage of adoption of the technology, genetically resistant bees tend to be used most successfully by beekeepers who are committed to reduced-chemical beekeeping, are more-proficient beekeepers, and manage fewer colonies.

Update on the Oregon Master Beekeeper Program

Presenter: Carolyn Breece, Oregon State University 4:00 PM, PACIFIC ROOM

The Oregon Master Beekeeper program began in 2012. Since then, it has educated about 475 beekeepers and issued 147 Apprentice Beekeeper certifications (many will be certified in late fall/winter of this year). The 75 Journey Beekeeper students have the opportunity to share their knowledge through service activities, and they receive advanced beekeeping education in events such as Thursday's Oregon Master Beekeeper Institute. We have an astounding 92 volunteer mentors signed up to mentor the Apprentice class of 2015. We thank them for

their time in providing essential hands-on training to new beekeepers. The OMB committee is continuing to develop the Master Beekeeper level. If you are interested in participating in the Oregon Master Beekeeper Program, please visit: www.oregonmasterbeekeeper.org.

Saturday, November 8

EVENTS

Registration

8:00 AM–11:00 AM, LOBBY

Oregon State University Honey Bee Lab

9:00 AM–4:00 PM, SEAMIST ROOM

Lab Techs: Jared Jorgensen and Ciera Wilson, Honey Bee Lab, Oregon State University

Stop by to see how the OSU Honey Bee Lab processes samples for the Honey Bee Health Survey. We will demonstrate how we analyze samples for Nosema, count Varroa mites, and dissect honey bees to look for tracheal mites and sample hypopharyngeal glands. We can also tell you about current research projects and extension events. Drop your own samples off for analysis after the conference.

Lunch

11:45 AM, IN AND AROUND THE CITY OF SEASIDE

PRESENTATIONS

CONCURRENT SESSIONS

Washington State University Honey Bee Research and Genetic Repository Update

Presenter: Steve Sheppard, WASHINGTON STATE UNIVERSITY

8:15 AM, PACIFIC ROOM

The focus of this presentation is the WSU program in stock improvement and an update on progress with recent efforts to import and move semen from Europe into the program. In addition, a project involving a survey for neonics in bee colonies in southwest Washington will be considered as well.

Tree Hive Bees

Presenter: Lynn Royce, OREGON STATE BEEKEEPERS ASSOCIATION

8:15 AM, NECANICUM ROOM

This talk will explain what Tree Hive Bees is about and report on studies of local tree hollows that host a colony of honey bees. The changes that honey bees faced when they were transferred from the wild into boxes with moveable frames will also be discussed, as well as where we hope to go from here.

University of Minnesota Bee Squad Program

Presenter: Marla Spivak, University of Minnesota

9:00 AM, PACIFIC ROOM

We initiated a Bee Squad to mentor urban, backyard beekeepers in the Twin Cities area. On unexpected outcome is the interest and support from corporations who have become bee ambassadors. We are ready to scale a corporate Bee Ambassador program nationally.

Old World Honey Bee Populations: A Genetic Resource for US Honey Bee Breeding

Presenter: Megan Taylor, Washington State University

9:00 AM, NECANICUM ROOM

Research has shown that genetic diversity of honey bees at the colony level is directly related to lower disease intensity, increased disease resistance, greater workforce productivity, and thermoregulation stability. At the population level, genetic diversity serves as the raw material for selective breeding in agriculturally important plants and animals, including the honey bee. Unfortunately, the importation and founder events associated with the establishment of honey bees in the US, coupled with current queen production methods that derive a large number of daughter queens from a small number of queen mothers, represent genetic bottlenecks that may limit honey bee genetic diversity at the population level.

Our lab has imported and distributed Old World germplasm of three subspecies, *Apis mellifera ligustica* (Italians), *A. m. carnica* (Caniolans), and *A. m. caucasica* (Caucasians), into the US. Several California commercial queen producers have incorporated this genetic material into their breeding program since 2008. For my graduate research, I am evaluating the genetic diversity of Old and New World honey bee populations and the genetic consequence of introducing additional germplasm into US honey bee breeding populations. In addition, I will compare these populations to data from populations sampled prior to Colony Collapse Disorder (CCD). This research will allow for a direct comparison between US and Old World populations, in addition to determining the overall genetic diversity of California honey bee populations compared to current US commercial stocks.

CONCURRENT TOPICAL SESSIONS

BEE INFORMED PARTNERSHIP: WORKING DIRECTLY WITH BEEKEEPERS

BIP: Management Practices that Work and Those that Don't

Presenter: Dennis vanEngelsdorp, University of Maryland 10:15 AM, PACIFIC ROOM

This is a look at BIP and other survey data to find trends in management practices that are helping to reduce colony losses. Some findings are obvious and easy to explain—others, less so. Come prepared to challenge some of your own assumptions and opinions.

Update from Bee Informed Partnership Pacific Northwest Tech Transfer Team

Presenters: Ellen Topitzhofer & Dan Wyns, Oregon State University 11:00 AM, PACIFIC ROOM

The Bee Informed Partnership is a project funded by USDA/NIFA that serves to reduce colony mortality. As part of this project, a new Tech Transfer Team was launched to work with commercial, migratory beekeepers in the Pacific Northwest region. The team's primary focus is to monitor colony health throughout the year while colonies are pollinating various crops or are in honey yards. By providing quick and standardized sampling methods, we help the beekeepers make timely, informed management decisions. We hope our sampling efforts will determine optimal management strategies for our beekeepers and aid in "big picture" research efforts with the use of epidemiological tools. We will present our progress so far and what lies ahead for the team.

CONNECTING BEES AND PEOPLE

Connecting with Kids & Communities Across the Globe

Presenter: Sarah Red-Laird, Bee Girl 10:15 AM, NECANICUM ROOM

Join this talk to learn about my work as US Ambassador for the international BEEWORLD Program. For the last year, I have been developing programs to connect kids and communities from the US to the United Kingdom, Australia, South America, Jordan, and beyond. Hear the latest developments of the program, and find out how you can participate.

On the Radar

Presenters: Kim Flottum, *Bee Culture* Magazine 11:00 AM, NECANICUM ROOM

What's happening today that's affecting your bees and beekeeping? Topics will include discussion ranging from honey bee health to the global honey market to the explosive growth in urban beekeeping.

Continued on page 9

OSBA 2014 FALL CONFERENCE AGENDA

THURSDAY, NOVEMBER 6

10:00 AM–5:00 PM	Oregon Master Beekeeper Institute	NECANICUM ROOM
4:00–5:00 PM	OSBA Executive Committee Meeting	SEASIDE ROOM
5:00–9:00 PM	Registration	LOBBY
7:00 PM	Social with Light Snacks	NECANICUM ROOM
	Movie (“MORE THAN HONEY”) TO FOLLOW	PACIFIC ROOM

FRIDAY, NOVEMBER 7

8:00 AM–5:00 PM	Registration	LOBBY
8:30 AM–3:00 PM	Bee School	RIVERVIEW ROOM
	THOM TRUSEWICZ, <i>OREGON BEEKEEPER</i>	
8:30 AM–4:00 PM	Silent Auction	NECANICUM ROOM
8:30 AM	Welcome	PACIFIC ROOM
	PAUL ANDERSEN, <i>OSBA PRESIDENT</i>	
8:45 AM	Drivers of Bee Colony Declines & Losses	PACIFIC ROOM
	DENNIS VANENGELSDORP, <i>UNIVERSITY OF MARYLAND</i>	
9:00 AM–4:00 PM	Honey Bee Lab, OSU BRING SAMPLES OR DROP IN TO VIEW/ASK QUESTIONS	SEAMIST ROOM
9:30 AM	Break	
10:00 AM	Entries to Honey Show Due	NECANICUM ROOM
10:00 AM	Update on Current Bee Research & Extension Activities at Oregon State University	PACIFIC ROOM
	RAMESH SAGILI, <i>OREGON STATE UNIVERSITY</i>	
11:00 AM	Resin to Propolis: Plant Sources and Effects on Bee Health	PACIFIC ROOM
	MARLA SPIVAK, <i>UNIVERSITY OF MINNESOTA</i>	
11:45 AM	Research Luncheon	NECANICUM ROOM
	STEVE SHEPPARD, <i>WASHINGTON STATE UNIVERSITY</i>	
1:15 PM	10 Rules for Modern Beekeeping	PACIFIC ROOM
	KIM FLOTTUM, <i>EDITOR, BEE CULTURE MAGAZINE</i>	
2:00 PM	How to Become a Millionaire and Other Beekeeping Secrets	PACIFIC ROOM
	GEORGE HANSEN, <i>FOOTHILLS HONEY COMPANY</i>	
2:45 PM	Break	
3:15 PM	Predicting and Managing Pesticide Risks to Bees	PACIFIC ROOM
	PAUL JEPSON, <i>OREGON STATE UNIVERSITY</i>	
4:00 PM	Update on the Oregon Master Beekeeper Program	PACIFIC ROOM
	CAROLYN BREECE, <i>OREGON STATE UNIVERSITY</i>	
4:15 PM	General Membership Meeting	HAYSTACK ROOM
6:00 PM	Social Hour	NECANICUM ROOM
7:00 PM	Banquet FOLLOWED BY Banquet Auction	NECANICUM ROOM
	KIM FLOTTUM, <i>EDITOR, BEE CULTURE MAGAZINE</i>	

SATURDAY, NOVEMBER 8

8:00–11:00 AM	Registration	LOBBY
9:00 AM–4:00 PM	Honey Bee Lab, OSU BRING SAMPLES OR DROP IN TO VIEW/ASK QUESTIONS	SEAMIST ROOM
CONCURRENT SESSIONS		
8:15 AM	Washington State University Honey Bee Research & Genetic Repository Update	PACIFIC ROOM
	STEVE SHEPPARD, <i>WASHINGTON STATE UNIVERSITY</i>	
8:15 AM	Tree Hive Bees	NECANICUM ROOM
	LYNN ROYCE, <i>OREGON STATE BEEKEEPERS ASSOCIATION</i>	
9:00 AM	University of Minnesota Bee Squad Program	PACIFIC ROOM
	MARLA SPIVAK, <i>UNIVERSITY OF MINNESOTA</i>	
9:00 AM	Old World Honey Bee Populations: A Genetic Resource for US Honey Bee Breeding	NECANICUM ROOM
	MEGAN TAYLOR, <i>WASHINGTON STATE UNIVERSITY</i>	
9:45 AM	Break	
CONCURRENT TOPICAL SESSIONS		
BEE INFORMED PARTNERSHIP: WORKING DIRECTLY WITH BEEKEEPERS—IN PACIFIC ROOM		
10:15 AM	BIP: Management Practices that Work and Those that Don't	
	DENNIS VANENGELSDORP, <i>UNIVERSITY OF MARYLAND</i>	
11:00 AM	Bee Informed Partnership Oregon State University: Update from Bee Informed Pacific Northwest Tech Transfer Team	
	ELLEN TOPITZHOFFER & DAN WYNS, <i>BEE INFORMED PARTNERSHIP, OREGON STATE UNIVERSITY</i>	
CONNECTING BEES AND PEOPLE—IN NECANICUM ROOM		
10:15 AM	Connecting with Kids & Communities Across the Globe	
	SARAH RED-LAIRD, <i>BEE GIRL</i>	
11:00 AM	On the Radar	
	KIM FLOTTUM, <i>BEE CULTURE MAGAZINE</i>	
11:45 AM	Lunch (IN AND AROUND SEASIDE)	
QUEENS: THE KEY TO SUCCESS—CO-SPONSORED BY CASCADIA QUEEN BREEDERS—IN PACIFIC ROOM		
1:15 PM	On Our Way—Incorporating Diversity into Queen Stock & Fitness Selection	
	JOHN JACOB, <i>SOUTHERN OREGON QUEEN BREEDER</i>	
2:00 PM	How to Locally Rear Selected-Stock Queens	
	DEWEY CARON, <i>OREGON STATE UNIVERSITY</i>	
MORE ON BEES—IN NECANICUM ROOM		
1:15 PM	Colony-Level Prevalence and Intensity of Gut Parasite, <i>Nosema ceranae</i> Investigating Effects of Colony Nutrition on Nosema Infection Persistence	
	CAMERON JACK, <i>OREGON STATE UNIVERSITY</i>	
2:00 PM	Making Sense of Honey Bee Pheromones	
	JUDY SCHER, <i>EUGENE BEEKEEPER</i>	
2:45 PM	Break	
3:15 PM	Honey Bee Expert Panel (Topic to be announced)	PACIFIC ROOM
	MODERATED BY DEWEY CARON, <i>OREGON STATE UNIVERSITY</i>	
4:00 PM	Closing	PACIFIC ROOM

Safe Travels Home, Everyone!

Continued from page 6

QUEENS—THE KEY TO SUCCESS
CO-SPONSORED BY CASCADIA QUEEN BREEDERS

On Our Way—Incorporating Diversity into Queen Stock & Fitness Selection**Presenter:** John Jacob, Southern Oregon Queen Breeder 1:15 PM, PACIFIC ROOM

This discussion focuses on producing queens in Southern Oregon as well as honey bee breeding techniques, challenges, and opportunities. It will cover genetic diversity, honey bee fitness, collaboration, and adventures in modern beekeeping.

How to Locally Rear Selected-Stock Queen**Presenter:** Dewey Caron, Oregon State University 2:00 PM, PACIFIC ROOM

Small-scale queen rearing should not sacrifice quality. There are some relatively easy ways to raise a few to a couple dozen queens without having to master grafting technique. Basics include selection of best stock, starter colony, finishing colony (which can be the same as starter), and then isolation of capped queens cells. Requeening can be done with capped cells, virgin queens, or by an extra step of making up mating nucs to evaluate queen fitness before use in requeening. Discussion will include local selection pros and cons.

MORE ON BEES

Colony-Level Prevalence and Intensity of Gut Parasite, *Nosema ceranae*
Investigating Effects of Colony Nutrition on Nosema Infection Persistence

Presenter: Cameron Jack, Oregon State University 1:15 PM, NECANICUM ROOM

Much is still unknown about what a *Nosema ceranae* infection actually looks like inside a hive and the role of nutrition on Nosema infection. We introduced *Nosema ceranae* to nucleus hives with Nosema-free bees marked according to age and analyzed them individually to determine the prevalence and intensity of infection at different age cohorts. We also explored the role of nutrition on Nosema infection by feeding caged bees *Nosema ceranae* and diets varying in nutritional value.

Making Sense of Honey Bee Pheromones**Presenter:** Judy Scher, Eugene Beekeeper 2:00 PM, NECANICUM ROOM

There are over 100 chemicals which constitute honey bee pheromones, and many have yet to be discovered. A basic understanding of Honey Bee Pheromones is important to any serious beekeeper because it is the major vehicle for communication in honey bees, as in all insects. Honey bee behavior is driven by pheromones and the beekeeper needs to interpret and understand these behaviors. In addition, beekeepers will come across many references to pheromones in the literature and should have a rudimentary understanding of what they do.

This talk will describe the difference between primer and releaser pheromones. Honey bee exocrine glands, where pheromone is produced, will be described throughout the talk. Pheromones and their functions in each caste (if known) and pheromones of larvae will be covered, as well as the roles of pheromones in behavior, e.g., alarm, orientation, hive harmony, swarming, supercedure, and laying workers. In addition, a brief look at antenna anatomy (the receptor of pheromones) will be presented, as well as types of chemicals which constitute pheromones.

Honey Bee Expert Panel (Topic To Be Announced)**Moderator:** Dewey Caron, Oregon State University 3:15 PM, PACIFIC ROOM**Closing**

4:00 PM, PACIFIC ROOM

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Presenters and Others!



Carolyn Breece

Carolyn Breece is a research assistant at the Oregon State University Honey Bee Lab (*Go Beavs!*). She has a bachelor's degree in biology from the University of Oregon (*Go Ducks!*) and a master's in forestry from Northern Arizona University. She is a committee member, Journey student, and mentor for the Oregon Master Beekeeper Program. In addition to helping manage OSU's apiary of 75 colonies, she has five colonies of her own, one of which is co-managed by her 8-year-old son, Simon. Her husband Nate tolerates her obsession with bees only because he is just as obsessed with bicycles.



Dr. Dewey Caron

A Vermont native, Dewey Caron learned beekeeping at Cornell University with mentor Roger Morse. He began teaching beekeeping in 1967 at Cornell University, and continued 11 years at University of Maryland and 28 at University of Delaware. He retired in 2009 and moved to Tigard to be closer to his five grandchildren. He represents Oregon on the Western Apicultural Society Board, is advisor to the EAS master beekeepers, on advisory committee of the Bee Informed Partnership, a member of the Oregon Master Beekeeper Program committee, and vice president of OSBA.



Kim Flottum

Kim Flottum has been the editor of *Bee Culture* magazine for nearly 30 years, where he's published a variety of books, including three editions of the *ABC and XYZ of Bee Culture*. He's also independently authored several beekeeping books, from beginner to advanced. He is past chair and past president of the Eastern Apicultural Society and currently the vice president of his local Medina County Beekeepers Association. He and his wife Kathy, now assistant editor of the magazine, keep a half-dozen hives and a few chickens in the backyard.



George Hansen

After a short six-year career as a public school teacher, George Hansen transformed a hobby beekeeping operation into a commercial endeavor. Starting from a few swarms and a collection of retrieved nuisance hives, the company now runs 5000+ colonies in three states. Although the name of the company never changed, the focus of the beekeeping is now primarily pollination service, with honey, wax, and bee sales making up no more than 30 percent of gross revenues. George is an active member of the beekeeping community, promoting the industry's interests and helping those new to beekeeping.



Cameron Jack

Cameron Jack grew up in a small town near Las Vegas, Nevada, where he worked with a grandpa who kept honey bees. He completed an undergraduate education at Southern Utah University in 2012 and is now a master's student in the Department of Horticulture at Oregon State University with Dr. Ramesh Sagili. He is currently conducting research on the honey bee gut pathogen *Nosema ceranae*. Following completion of his master's degree, he plans to pursue a PhD, continuing research on bee health.



John Jacob

John Jacob is owner of Old Sol Enterprises, president of the Southern Oregon Beekeepers Association, a graduate of Southern Oregon University, and beekeeper since 1997. John has focused on stock selection and breeding hearty queens by selecting for mite and disease tolerance, a quest that continues in the Rogue Valley and beyond. Commercial pollination and nuc sales are additional integral components of his apiary operations.



Dr. Paul Jepson

Paul Jepson received degrees from Imperial College, London, and the University of Cambridge before coming to Oregon in 1995. Since 2002, he has been the State IPM Coordinator, and he works closely with research and extension networks to support sustainable pest management practices in Oregon. He has published approximately 100 scientific papers on the toxicity and impacts of pesticides on beneficial invertebrates, and works both locally and globally to help find solutions to some of the most-pressing problems in sustainable agricultural production.



Jared Jorgensen

Jared Jorgensen is originally from Roseburg, Oregon. He has a bachelor's degree from Oregon State University, where he majored in agricultural science and minored in horticulture. He has been keeping bees for about four years now. With about 20 hives, he does some small-scale pollination contracts, mainly to cranberries on the southern Oregon coast. He has worked at the OSU Honey Bee Lab since March 2014. During the conference, he will be staffing the on-site OSU Honey Bee Lab.



Sarah Red-Laird

Sarah Red-Laird is the founder and executive director of the Bee Girl organization. She has a degree in resource conservation from the University of Montana, Missoula, where she chose honey bees and Colony Collapse Disorder as her Davidson Honors College research thesis. Sarah returned home to Southern Oregon late 2010. There she found a niche combining her love of bees with her education, outreach, research, conservation, and nonprofit experience to encourage and support beekeepers and bee lovers through her nonprofit organization, Bee Girl.



Dr. Lynn Royce

Lynn Royce did her doctoral research on tracheal mites of honey bees and studied pollinators for over 30 years. She ran the Insect Identification Clinic for Oregon State University Extension Service for several years, and then retired to raise honey bee queens—selecting lines for resistance to Varroa.



Dr. Ramesh Sagili

Ramesh Sagili is a honey bee research and extension faculty in the Department of Horticulture, Oregon State University. He obtained his PhD in Entomology from Texas A&M University, and has bachelor's and master's degrees from A.P. Agricultural University, India. His primary research focus is honey bee health, nutrition, and pollination, and his goal is to establish a vibrant and dynamic research and extension program to address the needs of stakeholders. He works closely with beekeepers and producers throughout the state, and initiated the Oregon Master Beekeeper Program in 2010.



Judy Scher

Judy Scher received her bachelor's degree in biology from Case Western Reserve University and did post graduate studies at the University of Oregon back in medieval times. Presently she is fascinated by the biology of honey bees. She has been an urban beekeeper in Eugene, Oregon, for 13 years and worked hard with the city to allow multiple hives on city property. Judy is a past president of Lane County Beekeepers Association and a member of the Oregon Master Beekeeper planning committee. She is currently working on completing the Washington state master-level beekeeper.



Dr. Steve Sheppard

Steve Sheppard is Thurber Professor of Apiculture and chair of the Department of Entomology, Washington State University, Pullman. His areas of interest include population genetics and evolution of honey bees, insect introductions, and mechanisms of genetic differentiation. Steve, his WSU graduate students, and postdoctoral researchers have continued work on honey bee genetics, selection and breeding for Pacific Northwest conditions, applied aspects of integrated pest management, and issues related to colony health, as well as germplasm importation and cryopreservation technology.



Dr. Marla Spivak

Marla Spivak is a MacArthur Fellow and McKnight Distinguished Professor in Entomology at the University of Minnesota. Her research efforts focus on protecting the health of all bees, breeding bees for their natural defenses against diseases and parasites, promoting sustainable beekeeping practices, and propagating floral rich and pesticide-free landscapes to support the nutrition, health, and diversity of bee pollinators.



Megan Taylor

Megan Taylor earned her MS degree at the University of Guelph (Ontario, Canada) under the advisement of Dr. Ernesto Guzman. Her master's thesis was focused on improving techniques for the cryopreservation of honey bee germplasm, and it was during that time that Megan fell for the honey bee. She is presently obtaining her PhD at Washington State University (Pullman, Washington) with Dr. Walter S. Sheppard as her advisor. Her current research is focused on assessing the genetic diversity of Old World honey bee populations as a potential resource for US bee breeding efforts.



Ellen Topitzhofer

Ellen Topitzhofer is part of the Pacific Northwest Tech Transfer Team, which operates out of Oregon State University. The teach team works with migratory beekeepers in Oregon, Idaho, and Washington to monitor colony health. Ellen received her BS from the University of Minnesota, and recently completed her MS from Oregon State University. Her research included studies on honey bee nutrition. She is also a volunteer mentor for the Oregon Master Beekeeper Program and enjoys teaching others about the joy of beekeeping.



Thom Trusewicz

Thom Trusewicz has been a hobbyist beekeeper over the last 15 years. He teaches an annual beekeeping class for beginners at Clatsop Community College every winter and at the Oregon State Beekeepers Association fall conference. He does several presentations on beekeeping and pollination to agricultural and service organizations and garden shops every year all over the Pacific Northwest. He is also a mentor in the Oregon Master Beekeeper Program. Currently his apiary, Beehaven Farm, is dedicated to producing chemical-free honey and wax products.



Dr. Dennis vanEngelsdorp

Dennis vanEngelsdorp is assistant professor of entomology, University of Maryland. Previously at Penn State University, Dennis was senior extension associate and acting Pennsylvania state apiarist. As lead PI and director of the Bee Informed Partnership, his research on colony health involves multi-faceted epidemiological approaches to understanding and (importantly) improving honey bee health that require understanding of both the etiology of individual bee diseases and large-scale colony monitoring. Dennis is also on the leadership team of APHIS National Honey Bee Survey.



Ciera Wilson

Ciera Wilson currently attends Linn-Benton Community College, where she is majoring in agriculture business management and agriculture science. She has worked at the OSU Honey Bee Lab for two years and has seventeen of her own hives. Ciera has been beekeeping for about five years, previously working for a commercial beekeeper in the Columbia River Gorge. This year she caught her first swarm and acquired a wine barrel of bees, too! Ciera will be staffing the on-site OSU Honey Bee Lab during the conference.



Dan Wyns

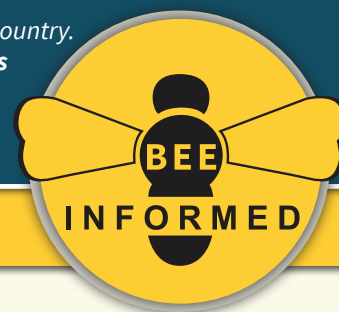
Dan Wyns is a member of the Pacific Northwest Tech Transfer Team, working with commercial beekeepers from Oregon, Washington, and Idaho. After receiving a BS from the University of Michigan, Dan traveled to New Zealand for a working holiday. Shortly after arrival, he met a beekeeper and began helping him move colonies for pollination. The holiday evolved into a seven-year stay as a commercial beekeeper and apiary inspector. Dan has also worked for a migratory operation in Canada. He feels fortunate to work with bees and looks forward to helping as part of the Team and Bee Informed Partnership.

The **Bee Informed Partnership** is a 5 year effort funded by USDA/NIFA.

It is a large collaboration with research institutions, Universities, and beekeepers from all over the country.

One of the core aims of the **Bee Informed Partnership** is to **collect information from beekeepers about what management practices they use** and to **measure related colony survivorship**.

We then try to get that information back to beekeepers as quickly as possible in ways that permit beekeepers to make informed management decisions.



Be Included. Be Involved. Bee Informed.

Emergency Response Kits

The **Bee Informed Partnership at UMD** adds a new service to beekeepers experiencing crashing hives that require immediate attention in the form of an **'Emergency Response Kit' (ERK)**. This kit is designed to rule out causes of large scale, suspicious colony loss through small scale sampling. It may not provide a definitive answer as to the cause of colony losses, but rather rules out certain causes. In total, **16 hives are sampled**; 8 weak or crashing colonies and 8 healthy colonies. Live bees are tested for viral loads, and each of the 16 hives are sampled on the individual level to determine Nosema and Varroa levels at UMD. If desired, the beekeeper can gather pollen from hives and for pesticide analysis at additional cost.



Bee Informed Hive Scale

We have been working with vendors and our colleagues at **Grand Valley State University** to develop a **BIP Hive Scale** for beekeepers and beekeeping clubs to gather and use valuable data from their own hives. *These data will be helpful in making timely and educated management decisions.* We currently have them available for purchase this summer. This is a continuation of our collaborative effort with the HoneyBeeNet, a NASA Goddard Flight Center-initiated project that tracks hive weight gains and losses to better understand how climate and land use/ land cover changes affect the nectar flows.



Hive Scales will be available to purchase at:

www.BrushyMountainBeeFarm.com/BIP.asp

Real Time Disease Load Monitoring

Our long term goal to reduce honey bee colony losses is advanced with the launch of our **Real Time Disease Load Monitoring**. *This monitoring is intended for beekeepers who are interested in following Nosema and Varroa mite levels over time.*

Standardized sampling kits are provided to participating beekeepers and participants **sample the same 8 colonies every month** over the course of their active season. These monitoring data are combined with historical records to generate basic summaries of disease and parasite population trends, permitting beekeepers to compare their pathogen levels to historic seasonal levels and to current levels in their region. This information is extremely useful to beekeepers when **making treatment decisions** and when **determining if current treatments are effective**. *It also allows us to link management practices to disease and mortality levels.*



Bee Informed Tech Teams

Our five tech teams are in the field year round working with commercial beekeepers throughout the country to provide them with **critical diagnostic health data to help them make management decisions that will effect beekeepers nationwide**. Our tech teams include our northern California team who work with queen breeders in that area, Midwest honey producers, Florida migratory beekeepers (including Georgia queen breeders), Pacific northwest migratory beekeepers and seed pollinators, and Hawaii queen producers.



Join us in Next Year's Survey!

Go to **BeeInformed.org** & click the **"Sign Up to Participate!"** button.

THE REVOLUTION BOX

Any Size

Paint
Optional

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INNOVATIVE
DESIGN

- * Ask about our unique **GUARANTEE**
- * Call for distribution points nearest you
- * Ponderosa Pine Products (kiln dried)

1 5/8"

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Joint

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